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CHILD AND ADOLESCENT PSYCHIATRY AND PSYCHOLOGY IN BOSNIA AND HERZEGOVINA – STATE AND PERSPECTIVES

AKADEMIJA NAUKA I UMJETNOSTI BOSNE I HERCEGOVINE
АКАДЕМИЈА НАУКА И УМЈЕТНОСТИ БОСНЕ И ХЕРЦЕГОВИНЕ
ACADEMY OF SCIENCES AND ARTS OF BOSNIA AND HERZEGOVINA

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CONTENTS

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Pregledni rad

DJEČIJA I ADOLESCENTNA PSIHIJATRIJA KAO SAMOSTALNA USTANOVA ILI U SKLOPU ODRASLE PSIHIJATRIJE

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UKC Sarajevo, Psihijatrijska klinika, Odjel za dječiju i adolescentnu psihijatriju, Sarajevo, Bosna i Hercegovina

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Apstrakt

Cilj: Prikazati sadašnji model funkcioniranja i analizirati buduće perspektive Odjela za dječiju i adolescentnu Psihijatriju pri Psihijatrijskoj klinici, Univerzitetskog kliničkog centra Sarajevo. **Pozadina:** Odjel za dječiju i adolescentnu psihijatriju Psihijatrijske klinike postoji preko 50 godina. Funkcioniše kao jedini odjel za dječiju i adolescentnu psihijatriju u Federaciji Bosne i Hercegovine. Ciljna grupa odjela su djeca i adolescenti u dobi od 3 do 18 godina koji imaju određene psihičke poteškoće. Pacijentima se usluge pružaju kroz ambulantu, dnevnu bolnicu i zatvoreno odjeljenje. Osim toga, postoji i savjetovalište za djecu i roditelje. Zbog ekonomskih razloga i profesionalnih razmjena smatramo da je bolje da Odjel funkcioniše u okviru Psihijatrijske klinike za odrasle. Glavni nedostatak ovog modela funkcionisanja se ogleda u kasnom početku tretmana zbog straha od stigmatizacije. **Metode:** Uporediti model funkcionisanja Odjela za dječiju i adolescentnu psihijatriju u Sarajevu sa drugim klinikama za liječenje djece i adolescenata sa psihičkim smetnjama. **Diskusija:** U većini zemalja liječenje djece i adolescenata sa psihičkim poremećajima se organizira u okviru samostalnih klinika. Poredeći rad Odjela u sklopu UKC Sarajevo sa radom Zavod u sklopu KBC Zagreb vidimo da se radi o dva veoma slična modela organizacije, ali da je osnovna razlika u dostupnosti adekvatno obrazovanog kadra bez obzira što se tretira otprilike jednak broj djece i adolescenata sa različitim smetnjama. Još veću razliku uočavamo ako poredimo rad Odjela za dječiju i adolescentnu psihijatriju Sarajevo sa radom samostalnih klinika, na primjer, Psihijatrijska bolnica za djecu i mladež Zagreb ima 78 zaposlenih različitih edukativnih profila. Naš Odjel ima samo 10 zaposlenih, iako liječimo približno isti broj pacijenata. **Zaključak:** Cilj nam je u budućnosti uspostaviti samostalnu kliniku za djecu i adolescente. Za ovaj koncept potrebna su finansijska sredstva, multidisciplinarni profesionalni tim, oprema i prostorije čija raspoloživost zavisi od interesovanja vlasti.

Ključne riječi: dječija i adolescentna psihijatrija, perspektive, organizacioni modeli.

Prema podacima iz Sjedinjenih Američkih Država, 20% djece i adolescenata (oko 15 miliona) u razdoblju od 9 do 17 godina imaju primjetan psihijatrijski poremećaj (1). Prevalenca pojedinih teških poremećaja kao što su bipolarni poremećaj, velika depresivna epizoda (8%, 12-17 g.), ADHD (6,8%) poremećaji iz autističnog spektra (1/ 100, 88, 68 djece u toku 2012., 2013., 2014.,g.) se značajno povećala u proteklih nekoliko godina (1, 2).

Prema podacima Svjetske zdravstvene organizacije 45% svjetske populacije je živjelo u državi gdje je bio manje od 1 psihijatar na 100.000 stanovnika (3). Podaci iz Bosne i Hercegovine govore da je u 2014. godini na 100.000 stanovnika u BiH bilo 4 psihijatra. U susjednoj Hrvatskoj je te iste godine na isti broj stanovnika bilo 10,25 psihijatara (3). Ovaj podatak nas čini državom koja je u Evropi na samom dnu po broju psihijatara. Nije naveden podatak koji se posebno tiče dječijih i adolescentnih psihijatara, ali sudeći po ovim podacima taj broj bi bio poražavajući.

Sa druge strane, samo 20% djece sa emocionalnim poremećajima dobije adekvatan tretman od strane stručnjaka iz polja mentalnog zdravlja, a još manji broj dobija adekvatnu evaluaciju i tretman (4). U Sjedinjenim Američkim Državama, prema podacima iz 2014. godine, ima oko 8000 specijalista dječije i adolescentne psihijatrije na populaciju od oko 15 miliona djece i mladih (4). Tako da se danas čak govori o „kolapsu sistema dječije i adolescentne psihijatrije“, jer postoji ogromna razlika između pojedinih država jer u nekim nema niti jednog psihijatra iz ove uže specijalnosti. Iako se smatra da će broj psihijatara do 2020. godine porasti za 30%, to će opet biti nedovoljno, jer je prema broju djece i adolescenata potrebno oko 12.000 psihijatara kako bi se adekvatno zadovoljile njihove potrebe (4, 5).

Organizacija Odjela za dječiju i adolescentnu psihijatriju Univerzitetskog kliničkog centra (UKC) Sarajevo

Odjel za dječiju i adolescentnu psihijatriju Psihijatrijske klinike UKC Sarajevo postoji već 50 godina. Jedini je odjel za dječiju i adolescentnu psihijatriju u Federaciji Bosne i Hercegovine. Na Odjelu se liječe djeca u dobi od 3 do 18 godina. Odjel ima klinički odsjek, dnevnu bolnicu, ambulantu i savjetovalište za dijete i porodicu.

1. Klinički odjel (10 pacijenata),
2. Dnevna bolnica (10 pacijenata),
3. Ambulanta (1500 pacijenata godišnje),
4. Savjetovalište za dijete i porodicu (700 pacijenata godišnje),
5. Intenzivna njega (pri odrasloj Psihijatriji).

Terapijske aktivnosti na Odjelu za dječiju i adolescentnu psihijatriju UKC Sarajevo

- Grupna terapija adolescenata,
- Kognitivno-bihejvioralna terapija (KBT),
- Psihodinamska orijentirana psihoterapija,

- Psihoedukacija roditelja kroz individualni i grupni pristup,
- Grupa roditelja – jedanput sedmično,
- Okupaciona terapija: terapija igrom, likovna terapija i muzikoterapija,
- Psihofarmakološka terapija,
- Saradnja sa školama, vrtićima i centrima za socijalni rad.

Dnevna bolnica pri Odjelu za dječiju i adolescentnu psihijatriju UKC Sarajevo

U dnevnu bolnicu se primaju pacijenti kojima ambulantni tretman nije dovoljan, a ne postoji indikacija za stacionarno liječenje. Vrši se detaljna dijagnostika (medicinska, psihološka i pedagoška). Također, vrši se multimodalno planiranje terapije od strane specijalista dječije i adolescentne psihijatrije. Primjenjuje se strukturirani pedagoški program, koji djeci i adolescentima pruža orijentaciju za praktičnu primjenu u svakodnevnom životu. Postoje jasna pravila na Odjelu uz pozitivno potkrepljivanje i nagrađivanje. Uključeno je savjetovanje roditelja i trening roditelja. Redovno se održavaju kontakti i savjetovanja sa vrtićima i školama koje djeca pohađaju. Najčešće dijagnoze kod prijema djece su: hiperkinetski poremećaji, poremećaji socijalnog ponašanja, razvojni poremećaji, emocionalni poremećaji, opsesivno-kompulzivni poremećaj, razvojni poremećaji školskih sposobnosti, tik poremećaji, enureza, enkompreza, poremećaji ishrane, somatoformni i disocijativni poremećaji, psihotični i postpsihotični poremećaji.

Medicinski kadar trenutno uposlen na Odjelu čine:

- Dva neuropsihijatra,
- Jedan psiholog,
- Pet medicinskih sestara na stacionaru,
- Jedna medicinska sestra kao okupacioni terapeut,
- Jedna glavna sestra Odjela.

Prikaz funkcioniranja: Klinika za psihološku medicinu Rebro – Zavod za dječiju i adolescentnu psihijatriju i psihoterapiju

Zavod se sastoji od Poliklinike sa ambulantnom djelatnošću (specijalističke ambulante), dnevne bolnice sa 20 mjesta, kao i stacionarnog psihijatrijsko-psihoterapijskog odjela sa 10 postelja. Zavod je nosilac referentnog centra za dječiju i adolescentnu psihijatriju pri Ministarstvu zdravlja RH, kao centra izvrsnosti u ovom području, odnosno jedna od vrhunskih institucija u Hrvatskoj u području dječije i adolescentne psihijatrije i psihoterapije. Dječija i adolescentna psihijatrija je deficitarna struka u Hrvatskoj, ali i izrazito preventivna, jer prevenira poremećaje u odrasloj dobi, odnosno značajno umanjuje finansijski gubitak u odrasloj dobi (6).

Poliklinika, odnosno **ambulantni dio** je jedan od najvažnijih dijela zavoda koji ima i najdužu vrijednu tradiciju. U ambulantnom dijelu se provode različite

dijagnostičke procedure, kao i različite vrste terapija. Ambulanta za predškolsku djecu obuhvata djecu dobi od 0 do 7 godina, a uključuje različite dijagnoze i terapijske metode, kao što je npr. dijagnostika autističnog spektra poremećaja, dijagnostika i terapija regulacijskih poremećaja (poremećaji jedenja, spavanja, eksesivno plakanje male djece). Ambulanta za obiteljsku, bračnu terapiju i psihodramu uključuje visoko diferentne metode liječenja pojedinaca, kao i cijelih porodica. Ambulanta za psihoterapiju, psihosomatiku, liaison psihijatriju djece i mladeži obuhvata važan psihoterapijski rad u polju emocionalnih i psihosomatskih poremećaja u širem smislu te riječi (povezanost psihološkog i tjelesnog), kao i službu za konzultativnu i liaison psihijatriju (povezanost naših stručnjaka s drugim Klinikama i s djecom/adolescentima koji imaju određenu tjelesnu bolest ili tjelesne probleme). Ambulanta za poremećaje jedenja djece i mladeži obuhvata važno područje dijagnostike i liječenja poremećaja jedenja, koja inače počinju u djetinjstvu. Ambulanta za psihoanalitičku psihoterapiju mladeži je posebno fokusirana na analitičko (psihodinamsko) liječenje adolescenta, u smislu emocionalnog i nagonskog razumijevanja adolescenta s njegovim problemom, kao i cijelom porodicom. Indikacija za liječenje u bilo kojoj specijalističkoj ambulanti ostvaruje se preko prvog pregleda specijaliste (6).

Dnevna bolnica za mladež je prema svom konceptu također psihoterapijski orijentirana, i prima adolescente u dobi od 12 do 18 godina. U užem smislu, u dnevnoj bolnici se provodi multimodalni pristup i multimodalna terapija (kombinacija različitih terapija), od strane multispecijalističkog tima. Dnevna bolnica se, prema svom konceptu, približava intenzivnom ambulantnom liječenju. Indikacije za dnevnu bolnicu su slične već prije navedenim indikacijama. U Dnevnoj bolnici za mladež provode se individualne psihoanalitičke i grupne psihoterapije, grupni tretmani koje vode rehabilitator i socijalni pedagog, terapijska tehnika psihodrame, edukativne i kreativne i druge vrste terapija. Porodične (obiteljske) terapije provode se s porodicama gdje postoji indikacija. Također, gdje je indicirano, provodi se i medikamentozni tretman s psihofarmacima. Provodi se sastanak terapijske zajednice svih pacijenata i članova tima Dnevne bolnice za mladež. Informacioni razgovori s roditeljima vode se prema potrebama (6).

Stacionarni dio Zavoda je koncipiran psihoterapijski, što obuhvata jedan od rijetkih pristupa, kojim se problemi kod adolescenata pokušavaju rješavati psihološkim metodama, odnosno razgovorom, ali uz povremeno nužnu dodatnu medikamentoznu terapiju, kao i druge metode (6).

Ovaj odjel započeo je svoj rad 1. augusta 2014. godine. Do sada su bile pretežne indikacije na ovom odjelu adolescenti/ice s poremećajima jedenja, adolescenti s emocionalnim i depresivnim poremećajima, adolescenti skloni samopovređivanju te drugim poremećajima. S obzirom da se radi o stacionarnom odjelu „otvorenog tipa“, Zavod nije bio u mogućnosti do sada zbrinjavati adolescente u akutnim stanjima, akutno suicidalne, kao ni akutno psihotične. Indikacije za prijem na stacionarno liječenje su određene u skladu s mišljenjem cijelog tima, stručnim smjernicama, kao i arhitektonskim mogućnostima. Preliminirani rezultati pokazuju poboljšanje u oko 70% slučajeva. U 2013. godini ambulantno se liječilo 4424 pacijenta, a kroz dnevnu

bolnicu je prošlo 3232 pacijenata. U navedenom Zavodu zaposleno je 8 ljekara specijalista psihijatrije/specijalista dječije i adolescentne psihijatrije uz 3 specijalizanta dječije i adolescentne psihijatrije. Pored navedenih, zaposleno je 8 medicinskih sestara/tehničara, 2 defektologa, socijalni radnik i psiholozi (6).

Ako u konačnici uporedimo dva dosta slična modela funkcionisanja: Odjel za dječiju i adolescentnu psihijatriju UKC Sarajevo i Zavod za dječiju i adolescentnu psihijatriju KBC Rebro Zagreb, uočavamo najprije primjetnu razliku u broju zaposlenih, prije svega ljekara specijalista ali i ljekara na specijalizaciji. Generalno je broj medicinskog i nemedicinskog osoblja povoljniji u Zavodu, iako se broj pacijenata tretiranih u toku godine značajno ne razlikuje. Stanje u dječijoj i adolescentnoj psihijatriji se i u Hrvatskoj opisuje kao „teško", a u Bosni i Hercegovini je stanje još teže. To naravno utječe, kako na sam tok poremećaja, na sve manju prevenciju i rano otkrivanje, tako i na kvalitet usluge. Ako ne posjedujemo dovoljan broj osoblja, a preopterećeni smo brojem pacijenata, onda pri tome najviše trpe djeca i adolescenti kojima je potrebna pomoć stručnjaka.

Prikaz funkcioniranja: Klinika i poliklinika za dječiju i adolescentnu psihijatriju, psihosomatiku i psihoterapiju Wuerzburg – Njemačka

1. Dječiji odjel (16 pacijenata)
2. Adolescentni odjel (16 pacijenata)
3. Ambulanta (2500 pacijenata godišnje)
4. Intenzivna njega (14 pacijenata)
5. Klinika za duševno zaostalu djecu (15 pacijenata)
6. Dnevna bolnica (30 pacijenata**)**
7. Forenzički odjel
8. Škola u bolnici (7)

Tabela 1: Tipični dnevni raspored u Dnevnoj bolnici za djecu i adolescente Wuerzburg, Njemačka

08:00	Dolazak u Dnevnu bolnicu
08:15	Zajednički doručak, pranje zuba
08:45-10:15	Škola, terapija, dijagnostika ili boravak u igraonici
10:15-10:30	Pauza-užina
10:30-12:00	Škola, terapija, dijagnostika ili boravak u igraonici
12:15-12:45	Zajednički ručak
12:45-13:30	Vrijeme za slobodne aktivnosti
13:30-14:00	Vrijeme za domaće zadaće
14:00-16:00	Grupna terapija (ergoterapija, likovna terapija, *happy hour*, izlet, motopedika)
16:00	Užina
16:15	Odlazak kući

Tabela 2: Najčešće dijagnoze kod prijema u bolnicu za dječiju i adolescentnu psihijatriju, psihosomatiku i psihoterapiju Wuerzburg, Njemačka

ICD-10	Broj slučajeva	Dijagnoza
F 32	52	Depresivna epizoda
F 90	30	Hiperkinetski poremećaj
F 91	15	Poremećaji ponašanja
F 43	12	Reakcija na teški stres i poremećaj prilagođavanja
F 20	9	Shizofrenija
F 06	<=5	Drugi duševni poremećaji uzrokovani oštećenjem i disfunkcijom mozga te tjelesnom bolešću
F 10	<=5	Duševni poremećaji i poremećaji ponašanja uzrokovani upotrebom alkohola
F 23	<= 5	Akutni i prolazna duševna oboljenja
F 30	<= 5	Manična epizoda
F 33	<= 5	Povratni depresivni poremećaj

Terapijska ponuda na Klinici i poliklinici za dječiju i adolescentnu psihijatriju, psihosomatiku i psihoterapiju Wuerzburg, Njemačka:

- Psihoterapija,
- Socioterapija,
- Muzikoterapija,
- Terapija pokretom,
- Ergoterapija,
- Likovna terapija,
- Logoped,
- Terapija uz pomoć životinja (terapijski pas),
- Trening roditelja, motopedika,
- Terapeutsko penjanje,
- Farmakološka terapija.

U poliklinici zaposleno je 15 ljekara, 5 psihologa, 8 terapeuta, 2 socijalna radnika, 8 sekretarica i preko 40 medicinskih sestara/tehničara (7).

Psihijatrijska bolnica za djecu i mladež – Zagreb

Ova bolnica funkcionira kao samostalna ustanova. Sastavljena je iz sljedećeih odjela:

- Specijalističko-konzilijarni odjel čine ambulante dječijih i adolescentnih psihijatara, psihologa, logopeda-defektologa, neurologa i EEG laboratorij; uz to, ljekari obavljaju poslove u ambulanti pri Domu zdravlja;
- Hitna ambulanta;
- Dnevna bolnica čiji je kapacitet 40 stolica/kreveta za djecu od 5 do 18 godina;
- Bolnički odjel je sastavljen od 37 kreveta (25 akutnih i 12 hroničnih) i podijeljen je na dva dijela smještena na dvije etaže. Omladinski dio ima 21 krevetu, a na njemu se liječe adolescenti u dobi od 15 do 18 godina. Dječiji dio ima 16 kreveta, a predviđen je za dobnu skupinu od 6 do 14 godina (8).

Od sredine 2015. godine u sklopu bolnice započela je sa radom Škola u bolnici. U Psihijatrijskoj bolnici za djecu i mladež je trenutno zaposleno 16 psihijatara od kojih dvanaest ima subspecijalizaciju iz dječije i adolescente psihijatrije, jedan ima subspecijalizaciju iz psihoterapije te jedan subspecijalizaciju iz socijalne psihijatrije. Uz ljekare, u bolnici rade 4 psihologa, 3 defektologa-logopeda, 1 radni terapeut, 1 socijalna radnica, 1 diplomirana medicinska sestra, 9 viših medicinskih sestara, i 26 srednjih medicinskih sestara/tehničara (8).

Prednosti funkcionisanja dječije i adolescentne psihijatrije u sklopu Psihijatrijske klinike

Prednosti funkcionisanja dječije psihijatrije u sklopu Psihijatrijske klinike su manji troškovi, manji broj zdravstvenog osoblja, dežurstva su organizirana u sklopu psihijatrijske klinike, hospitalizacija je omogućena 24 sata dnevno kroz prijemnu ambulantu Psihijatrijske klinike, postoji saradnja i razmjena informacija sa ostalim psihijatrima unutar Klinike, te zajednička edukacija i zajednički projekti. Osim navedenog, koriste se usluge Intenzivne njege Psihijatrijske klinike za akutno psihotične adolescente sa agresivnim i destruktivnim ponašanjem. Koriste se usluge logopeda, neuropsihologa, pedagoga, socijalnih radnika, ljekara specijalista iz drugih oblasti unutar UKC-a. Postiže se lakše, brže i jeftinije korištenje laboratorijskih i dijagnostičkih procedura. Prednost predstavlja i praćenje faktora rizika, toka bolesti, prognoze i liječenja od djetinjstva, pa kroz odraslu dob.

Nedostaci funkcionisanja dječije i adolescentne psihijatrije u sklopu Psihijatrijske klinike

Nedostaci funkcionisanja dječije psihijatrije u sklopu Psihijatrijske klinike su otpor roditelja da dovedu dijete na kliniku radi stigmatizacije i postavljanja dijagnoze, manjak kadra za obimniji timski rad, nedostatak prostora za formiranje specijalističkih servisa i ambulanti za različite poremećaje, nemogućnost razdvajanja dječijeg od adolescentnog odjeljenja, nedostatak materijalnih sredstava za realizaciju planskih aktivnosti unutar UKC-a.

Zaključci

1. U većini razvijenih zemalja tretman djece i adolescenata sa psihičkim smetnjama odvija se kroz Klinike za dječiju i adolescentnu psihijatriju.

2. Analizom prednosti i nedostataka funkcioniranja dječije i adolescentne psihijatrije u sklopu Psihijatrijske klinike u Sarajevu, mišljenja smo da se još nisu stvorili uvjeti za osnivanje samostalne Psihijatrijske ustanove za djecu i adolescente.

3. Za koncept organizacije samostalne Psihijatrijske ustanove za djecu i adolescente u Sarajevu neophodno je osigurati finansijska sredstva, odgovarajući prostor, opremu i stručni kadar različitog profila.

4. Da bi klinika za djecu i adolescente funkcionisala samostalno, neophodno je da minimalno posjeduje: intenzivnu njegu, prijemnu ambulantu, dva odvojena stacionara za djecu i adolescente, dnevne bolnice i specijalizirane ambulante.

Reference

1. Centers for Disease Control and Prevention. Mental health surveillance among children – United States, 2005-2011. MMWR. 2013;62 (Suppl; May 16, 2013):1-35.
2. Keller D, Sarvet B. Is there a psychiatrist in the house? Integrating child psychiatry into the pediatric medical home. J Am Acad Child Adolesc Psychiatry. 2013;52(1):3-5.
3. World Health Organization. Regional Office for Europe (homepage on the internet). Copenhagen. Available from: http://www.euro.who.int/en/health-topics/noncommunicable-diseases/mental-health/data-and-statistics.
4. Thomas CR, Holzer CE 3rd. The continuing shortage of child and adolescent psychiatrists. J Am Acad Child Adolesc Psychiatry. 2006;45(9):1023-31.
5. Belfer ML. Child and adolescent mental disorders: the magnitude of the problem across the globe. J Child Psychol Psychiatry. 2008;49(3):226-36.
6. Klinički bolnički centar Zagreb (homepage on the internet). Zagreb. Available from: http://www.kbc-zagreb.hr/zavod-za-djecju-i-adolescentnu-psihijatriju psihoterapiju/.
7. Klinik und Poliklinik fur Kinder – u. Jugendpsychiatrie, Psychosomatik u. Psychotherapie (homepage on the internet). Wuerzburg (updated 2016 April 11, cited 2016 April 14). Available from: http://www.kjp.ukw.de/startseite.html.
8. Psihijatrijska bolnica za djecu i mladež. Zagreb. Available from: http://djecja-psihijatrija.hr/.

CHILD AND ADOLESCENT PSYCHIATRY AS AN INDEPENDENT INSTITUTION OR AS A PART OF ADULT PSYCHIATRY

Abstract

Objectives: To describe the current organisational model and to analyze future perspectives of the Child and Adolescent Psychiatry Division at the Psychiatric hospital University clinical centre Sarajevo. **Background:** The Division for Child and Adolescent Psychiatry at the Psychiatric hospital exists over fifty years. It is the only Child and Adolescent Psychiatry Division in the Federation of Bosnia and Herzegovina. Patients aged between 3-18 years are treated through inpatient, ambulant care and a day hospital. A counselling centre for children and parents is a part as well. For economical reasons and professional exchanges it is better for the Division to exist as a part of the Psychiatric hospital. The main disadvantages are the delayed start of treatment onset because of stigma. **Methods:** Compare the functioning model of our division with other hospitals for children and adolescents with psychiatric disorders. **Discusion:** In most countries the treatment is organized through independent clinics. If we compare the organization of the Division UKC Sarajevo with the DivisionKC BC Zagreb we can conclude that they have similar work concepts. The most prominent and basic difference is seen in the number of the available workforce although UKC Sarajevo treat almost the same numbers of children and adolescents with a range of disorders. An even greater difference is seen if we compare the Division for child and adolescent psychiatry Sarajevo with an independent clinic, for example, the Psychiatric hospital for children and adolescents in Zagreb has 78 employees with different educational profiles. The Division in Sarajevo has only ten employees, although we treat the same number of patients. **Conclusion:** We can conclude that in future we should try to establish an independent hospital for children and adolescents. For this concept it is necessary to provide financial resources, a multidisciplinary professional team, equipment and space which depends on the competent goverment institutions.

Key words: child and adolescent psychiatry, perspectives, organization models.

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Original scientific article

CURRENT STATE AND PERSPECTIVES OF CHILD AND ADOLESCENT PSYCHIATRY AND PSYCHOLOGY IN BOSNIA AND HERZEGOVINA

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Abstract

The goal of this research was to determine the current state of child and adolescent psychiatry and psychology in Bosnia and Herzegovina, and based on the findings, point out some possible future prospects in these fields. For this purpose, a questionnaire regarding the existing state of services provided in the child and adolescent psychiatry and psychology in the county was designed and disseminated across the country. The representatives of 18 different governmental institutions (Psychiatric Clinics, Mental Health Centers, Health Clinics and Centers for Early Childhood Development) across Bosnia and Herzegovina completed the questionnaire. The data were collected from a total of 143 professionals and focused on minors, children ranging in age from birth through 18 years old. Professionals reported that 47.47% of their applied work with patients was with typically developing children, compared to working with children with special needs, where the average percentage across the institutions was 52.53%. A total of 143 experts who worked with the preschool children and minors reported that 35 of them (24.47%) worked directly with the children over 50% of their work-time, and 34 of them (23.77%) worked exclusively with children and minors. Based on the data collected and a descriptive analysis conducted, some recommendations were made for the future.

Key words: child psychology, child psychiatry, Bosnia and Herzegovina, adolescent psychiatry.

Introduction

According to the World Health Organization (WHO) 15% of world population live with some form of disability, while the data from the World Bank (WB) indicate

that 20% of poorest world's population have some form of special needs (1). Approximately, 1 out of 6 children in the USA has some kind of a disability (2). The CDC's Children's Mental Health Report published in 2015 suggested that more children have some form of psychiatric disorders than diabetes, cancer and AIDS combined, further more because of stigma that follows these conditions, these problems were not adequately addressed and a large number of children with psychiatric disorders were in danger of school drop-out, substance abuse and juvenile delinquency (3). Anywhere in the world, whether children are classified as having a developmental disorder, psychiatric disorder or a disability, they all fall under "special needs" category and most will require some kind of support from Health, Education, and Social Care sectors. According to the USA data from 2013, Attention-Deficit/ Hyperactivity Disorder (ADHD) (6.8%) was the most prevalent diagnosis among children ages 3 to 17 years-old, followed by behavioral or conduct problems (3.5%), Anxiety (3.0%), Depression (2.1%), Autism Spectrum Disorders (ASD) (1.1%), and Tourette Syndrome (0.2%) among children ages 6 to 17 years) (3). Regarding the adolescents 12 to 17 years old, data showed that 4.7% were reported with illicit drug use disorder, 4.2% had alcohol abuse disorder, and 2.8% of adolescents had cigarette dependence (4). In 2008, results of a German National Health Survey study of the prevalence of mental health problems in children and adolescents, concluded that 14,5% of children and adolescents ages 7 through 17 years-old, could be classified as having one or more mental health problems (5). Also, the study found that fewer than half of those children and adolescents were receiving treatment and that the key is in the work on the prevention (5).

According to the UNESCO's reports, 98% of children with disabilities in developing countries are not included in any form of formal education and 30% of world's "street" children live with disabilities (6). As far as Bosnia and Herzegovina (B&H) are concerned, no National Survey of Heath exits, nor registry or connected system that tracks numbers of children and adolescents with developmental and/or mental health problems diagnosed or attending schools. UNICEF-B&H "Study of the Situation of Vulnerable Groups of Children and Policy Framework" estimated that 10% of population has some form of disability (7) but there are no data whether B&H is following the world trends in the prevalence of developmental delays and mental and developmental disorders in children and adolescents. According to the UNICEF, 9% B&H children are delayed in growth and development, and only about 13% of them have access to some form of pre-school education (8), thus having the opportunity to be detected as children with growth and development issues before they start school. This seems to be one of the major problems; children with disabilities in this country are "invisible" until they attend school, if they do, making early detection of disorders almost nonexistent.

In 2013, UNICEF conducted a survey with 9% of the adult population of B&H on their attitudes towards children with disabilities (9). According to the results, all participants in the survey daily encountered children with disabilities and 33% stated

that they felt pity towards them; 57.9% of people believed that children with disabilities could not fully be included like other children regardless of personal effort and the efforts of their families and 80.0% believed that by providing professional support, a child with disabilities could be only partially included in the society (9). Stigma and discrimination of children with disabilities is present in all aspects of their lives and it is main obstacle for full inclusion in education, health care, public events and decision-making (10). Stigma of children with disabilities is prevalent throughout the world and something lots of research is focusing on. In some cultures stigma and discrimination is based in traditionally wrong concepts about causes of disabilities, for example connected with spiritual and/or religious bad omens and similar misconceptions (11). Stigmatic and discriminative attitudes toward disabilities and families of youth with disabilities "have important negative psychosocial consequences for individuals living with disabilities"(12) and there is connection with severity of disability and parental perception of stigmatization by their child's disability (13). In B&H, 45% of people reported that they would not accept a child with intellectual disabilities as the best friend of their own child and 55% of population reported the use of violent forms of disciplining children and almost a third of the participants (30%) think that the main obstacle for better living conditions, development of children with disabilities and their inclusion in the society in B&H was the lack of well-trained professionals and institutions that deal with children with disabilities (9). This study focused on those professionals and the services they provide. Based on the fact that majority of mental disorders occurred first during childhood and adolescence, the necessity for strengthening preventive measures in form of early childhood detection and intervention services to decrease risk of secondary, severe mental disorders is obvious (14). Even though we know this from research and the conventions, B&H has no legal framework on early detection of disorders or organized system of intervention, and no prescribed system of services provided to support full inclusion of children and youth into the society. Services provided at the community level differ greatly location-to-location, and are not clearly regulated by any governmental agencies. There is a move towards deinstitutionalization and strengthening of the new service centers at the local level, Mental Health Centers, but they are still mostly incomplete as far as staffing (i.e. lack of psychiatrist, children's psychiatrists, clinical or counseling psychologists, early childhood interventionist, etc.) and are still mostly not providing services to children and adolescents.

In addition, programs for specialty and subspecialty in child and adolescent psychiatry or graduate level programs in child clinical, abnormal or developmental psychology do not exist in B&H. Therefore, many of the service providers for the children and the adolescents with disorders are not registered, supervised or need to pass any rigorous government base testing or licensing process in order to provide therapeutic or other services. In 2001/2002 academic year, Medical School of the Sarajevo University in collaboration with the Umeå University organized a four semester joint Master's degree program in Child and Adolescent Psychiatry

and Psychology. Thirty students, 18 psychiatrist and 12 psychologists, from all over the country entered the program and 24 have successfully graduated (15). These experts were to contribute advancement of services across B&H in child and adolescent psychiatry and psychology and contribute to the body of research coming from these related fields. To date, ten of them have received their Phd degrees as well, and therefore would be able to contribute to the academic programs development. Unfortunately, since the cohort form 2001/2002, no program in child/adolescent psychiatry or graduate programs in different subspecialty areas in psychology have been established nor offered at the universities. No more educated and trained professionals have been produced and therefore, it would be logical to conclude that the fields of child and adolescent psychiatry and psychology are not being developed, but rather being extinguished in B&H.

The goal of this research was to determine the current conditions, map the available resources and the way they are utilized in the child and adolescent psychiatry and psychology in B&H. Surveys were sent to the graduates of the program in 2001/2002 and some additional Health Clinics and Centers where children and adolescents with disabilities would be referred to by the governmental norms and standards of the referral process. Based on the findings, we wanted to analyze the current state and point out possible future prospects in these fields for B&H.

Method

In order to collect relevant data on the current state of the child and adolescent psychiatry and psychology in B&H, a questionnaire was constructed on the actual services available for the children and adolescent with disorders/disabilities. The Committee for Psychiatric and Neurological Research of Academy of Science and Arts of Bosnia and Herzegovina designed the questionnaire, and it was disseminated via e-mail across over 60 relevant institutions in B&H. The non-standard questionnaire is available to interested readers if they write to the authors. Since the services provided for children and adolescents with mental health or developmental disorders are center based, a team of professionals work with them while a psychiatrist or a psychologist is an integral part of the team. Therefore, we collected data on the treatments provided by all the members of the teams at each location. The service providers could be a combination of any of the following professionals: psychiatrists, psychologists, neuro-psychiatrist, speech and language therapists, occupational therapist, physical therapist, special educator-rehabilitator, pedagogues, social workers and teachers, etc.

A total of 18 institutions from 15 cities completed the questionnaires: Department of Psychiatry UKC Tuzla, Health Clinic/Center for Early Childhood Development Tuzla, Health Clinic Tuzla, General Hospital „prim.dr. Abdulah Nakaš“ Sarajevo, Public Institution „Division of Alcoholism and Substance Abuse“ Sarajevo, Health Clinic/Center for Mental Health Ključ, Center for Mental Health Široki Brijeg,

Department of Psychiatry UBKC Banja Luka, University Hospital Foča, Health Clinic/Center for Mental Health Prijedor, Health Clinic Drvar, Health Clinic Glamoč, Health Clinic Tešanj, Health Clinic/Center for Mental Health Derventa, Kindergarten Mostar, Center for Mental Health Brčko, Health Clinic Cazin (including Center for Mental Health, Center for Early Childhood development, Center for Physical Medicine and Rehabilitation), and Health Clinic Ljubuški. Figure 1 shows the above mentioned respondents that covered locations from both entities of Bosnia and Herzegovina: The Federation of Bosnia and Herzegovina (72% respondents), Republic of Srpska (22% respondents), and The Brčko District (6% respondents). With the data provided form the locations, a database using a program for statistical analysis SPSS (Statistical analysis in social science) was created and a descriptive statistical analysis was conducted.

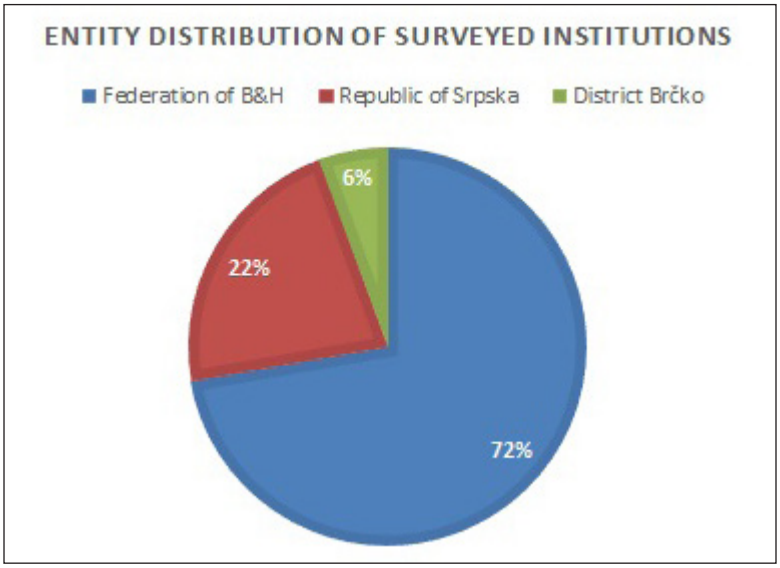

Figure 1

The questionnaire consisted of an open and close-ended questions about the institution, profiles of professionals employed, and their involvement in activities related to child psychology and psychiatry. The surveyed institutions had the possibility of responding by choosing one of the provided answers and some descriptive data in addition. They reported detailed data on the numbers of professionals working with minors with disabilities and disorders, time spent and type of treatment, and codes used to register minors in the institutions. In the questionnaire the following categories / codes were offered: F50 - Eating disorders, F51 - Nonorganic sleep disorders, F70-F79 – Intellectual disabilities, F80 - Specific developmental disorders of speech and language, F81 - Specific developmental disorders of scholastic skills, F82 - specific development disorder motor function, F83 - Mixed specific

developmental disorders, F84 - Pervasive Developmental Disorders (PDD), F88 - Other disorders of psychological development, F89 – Unspecified disorder of psychological development, F90 – Hyperkinetic disorders, F91 – Conduct disorder, F92 - Mixed disorder of conduct and emotions , F93 - Emotional disorders with onset specific to childhood, F94 - Disorders of social functioning with onset specific to childhood and adolescence, F95 – Tic disorder, F98 - Other behavioral and emotional disorders with onset usually occurring in childhood and adolescence, F99 - Mental disorder, not otherwise specified.

Results

Table 1 shows the detailed basic information on the institutions surveyed and their engagement time with minors. The institutions reported data on their geographical position and relevance to the population they were providing services for. Some of the institutions were registered at the level of the Entity (Federation of B&H, Republic of Srpska, Brcko District), serving much larger populations then Municipal institutions, serving much smaller populations. Distribution of surveyed institutions by B&H entity is presented in Figure 1. According to the registration level of the institution, the team members working with minors differed not just by the number but also by profiles of professions (Table 1). Also, in Table 1 data were reported on the numbers of minors the institutions registered as patients in the year 2014 for the first time.

Institutions provided services mostly (83.33%) to children ages birth through 18 years old. Only three institutions limited the age of the children they provided services for. Health Center / Center for Early Childhood Development Tuzla and the Kindergarten “Mostar” worked with children from birth to 6 years old while Public Health Centre/Center for Mental Health in Prijedor worked with children ages 6 to 18 years old. All of the 18 institutions reported that they work both with children with and without disabilities. As part of the questionnaire, included institutions estimated percentage of team’s time engaged working with children and adolescents without disabilities. Three institutions did not provide answers to this question and 15 institutions that provided answers to this question averaged 47.47% of their time spend working with children without disabilities compared to 52.53% time spend working with children with disabilities. Results have ranged from the minimum specified percentage of 8% to the highest 90% of work time spend with children with special needs.

Twelve out of 18 surveyed institutions reported data on the 1024 children and adolescents first time registered in their institution in the year 2014. Data showed that 88.9% institutions listed education/rehabilitation as their treatment they offer to children. 66.7% of institutions also held workshops for parents, and 18.8% held art workshops including art/music therapy, etc. Also, 83.33% of institutions reported that they work with children 1: 1, while only 52.9% of them used group as treatment setting (two or more children in the group).

Table 1

Ordinal number	City	Institution	Geographycal area in activities	Covered population of geographical area	Nummber of minors first time registred in 2014	Team engagement in work with minors compared to adult patients (%)
1	Tuzla	Department of Psychiatry UKC Tuzla	Bosnia and Herzegovina, Federation of Bosnia and Herzegovina, Canton, Community/Township	500.000	32	10%
		Health Clinic/Center for Early Childhood Development Tuzla	Federation of Bosnia and Herzegovin Canton, Community/ Township	130.000	100	100%
		Health Clinic Tuzla	Community/Township	not mentioned	not mentioned	50%
2	Sarajevo	General Hospital „prim.dr. Abdulah Nakaš" Sarajevo	Canton	400.000	50	10%
		Public Institution „Division of Alcoholism and Substance Abuse" Sarajevo,	Canton	400.000	0	10%
3	Ključ	Health Clinic/Center for Mental Health Ključ	Community/Township	10.000	30	70%
4	Široki Brijeg	Center for Mental Health Široki Brijeg	International, Federation of Bosnia and Herzegovina, Canton, Community/Township	50.000	175	not mentioned
5	Banja Luka	Department of Psychiatry UBKC Banja Luka	Republic Srpska	not mentioned	not mentioned	not mentiond
6	Foča	University Hospital Foča	Republic Srpska	200.000	not mentioned	100%
7	Prijedor	Health Clinic/Center for Mental Health Prijedor	Community/Township	100.000	50	30%
8	Drvar	Health Clinic Drvar	Community/Township	5.800	2	20%
9	Glamoč	Health Clinic Glamoč	Community/Township	2.500	150	1%
10	Tešanj	Health Clinic Tešanj	Community/Township	not mentioned	not mentioned	30%
11	Derventa	Health Clinic/Center for Mental Health Derventa	Republic Srpska	3.500	not mentioned	20%
12	Mostar	Kindergarten Mostar	Community/Township	60.000	130	95%
13	Brčko	Center for Mental Health Brčko	District Brčko	94.000	285	50%
14	Cazin	Health Clinic Cazin (including Center for Mental Health, Center for Early Childhood development, Center for Physical Medicine and Rehabilitation)	Community/Township	68.000	not mentioned	35%
15	Ljubuški	Health Clinic Ljubuški	Canton	30.000	20	70%

* Detailed basic information on the institutions and their engagement time with minors (preschool and schoolage chidren, and adolescents)
* Detailed basic information on the institutions, time of their engagement in working with minors expressed in percentages, and the nummber of minors first time registred in 2014 in each institution

We also have collected the data on the number and profile of the experts who worked with minors (preschool and school age children and adolescents) at each institution (Table 2). The following results are also presented in Figure 2 with the

Table 2

Professional profile	Psychi-atrist	Neu-ropsy-chiatrist	Psychol-ogist	Educator -rehabilitator	Occupational Therapist	Speech and Language Therapist	Social worker	Nurse	Physical Therapist	Total number of profes-sionals
Number of specific professionals working with minors	12	15	19	9	4	10	10	59	5	143
The number of profesionals working with minors 50% of their work hours	2	2	9	4	1	3	5	7	2	35
The number of professionals working full time with minors (only)	2	2	2	5	0	6	0	17	0	34

* Number and type of professionals from relevant institutions across B&H, and the percentage of their time spent working with minors (preschool and schoolage chidren, and adolescents).

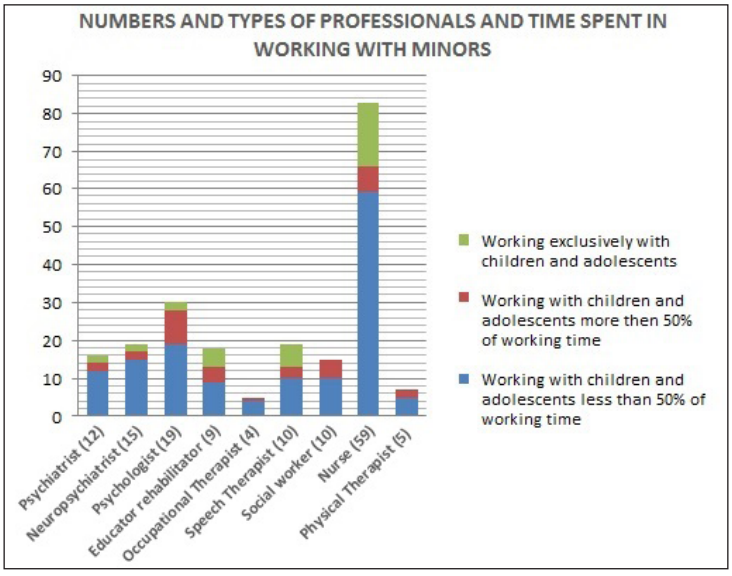

Figure 2

amounts of time each professional spent working with children exclusively (12 psychiatrists, 15 neuro-psychiatrists, 19 psychologists) Detailed data on the profiles of the professionals in teams at each institution and their time engaged working with preschool and school aged children and adolescents are presented in the Table 2. Totally 143 professional that work with preschool and school age children and adolescents were reported on, 35 of them (24.47%) worked with minors over 50% of their time, and 34 of them (23.77%) worked exclusively with minors (Figure 3).

Data were also collected on the disorder categories according to the ICD-10 coding system professionals in B&H use. Figure 4 details data about each code/disorder registered for minors enrolled in the institutions programs in 2014. 14 out of 18 institutions (77.8%) reported that they worked with minors registered under codes F70-F79 – Intellectual Disability, while 13 out of 18 institutions (72.2%) reported that they worked with minors registered under a code F80 - Specific developmental disorders of speech and language. 10 out of 18 institutions (55.5%) reported that they worked with minors registered under a code F81 - Specific developmental disorders of scholastic skills. 13 of 18 institutions (72.22%) reported that they worked with minors registered under a code F91 - Conduct disorders. 14 out of 18 institutions (77.8%) reported that they worked with minors registered under a code F92 - Mixed disorders of conduct and emotions, 14 out of 18 institutions (77.7%) reported that they worked with minors registered under a code F94 - Disorders of social functioning with onset specific to childhood and adolescence. 12 of 18 institutions (66.7%) reported that they worked with minors diagnosed with F95 - Tic disorders More details are shown in Figure 4.

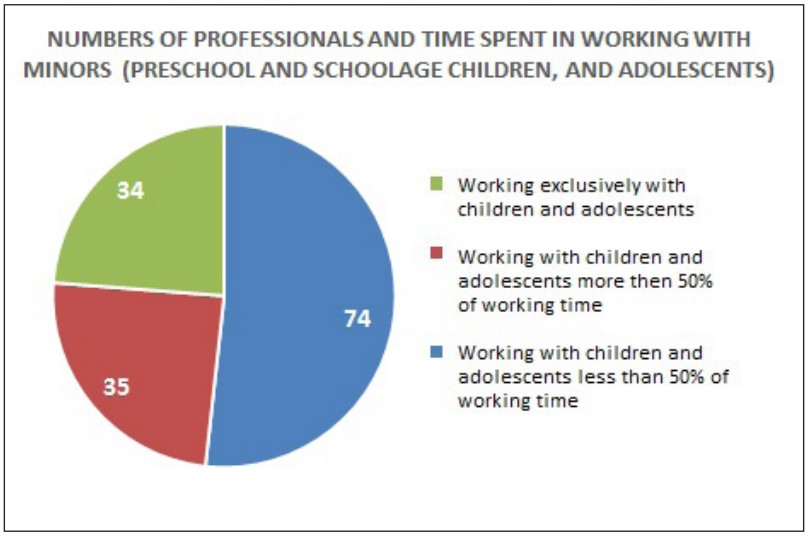

Figure 3

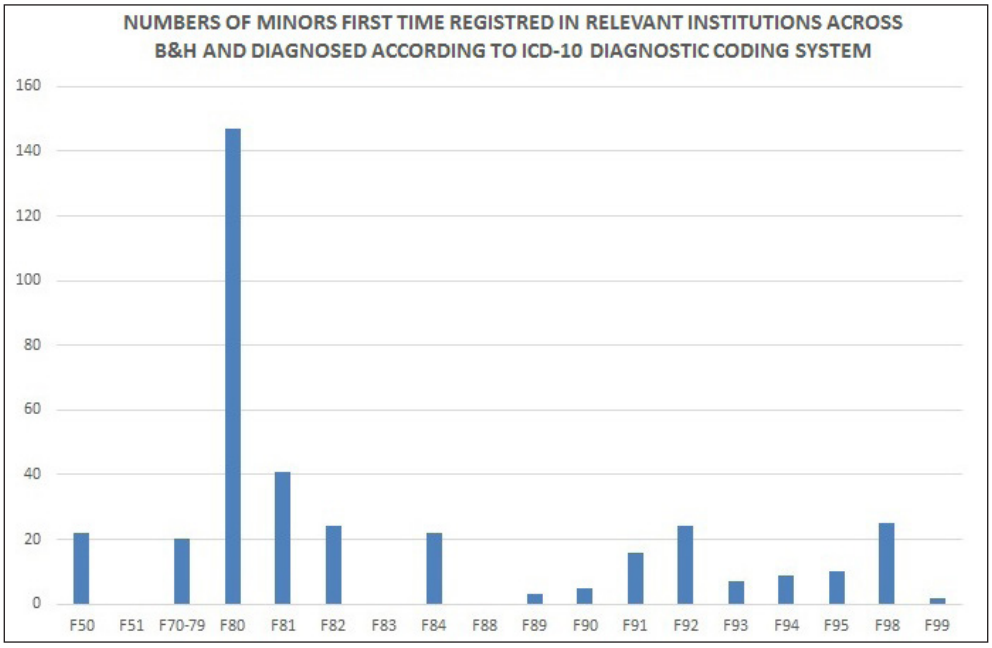

Figure 4

Discussion

According to the preliminary 2013 census data, B&H has a population of 3.791.662. Since 15 out of 18 provided numbers of patients that they cover with their activities in their geographical areas, totaling to a capacity for 1.523.800 people (40.2% of the whole population of B&H), we can conclude that the surveyed institutions were a representative sample. Based on the data from 18 surveyed institutions, the 2013 census data, and the data on the world's trends, we were able to draw some conclusion and recommendations. We do know that 10 to 20% of children and adolescents in the world have some kind of mental health problem and that in low and mid-income countries their needs are neglected (16). B&H being a mid-income country approaching seriously the poverty line (every 6th household is considered poor by the world standards (7)),brings us to a conclusion that the state of special needs children and adolescents in B&H is likely to follow the world's trends. Therefore, we are able to say that the study we conducted suggest that the current state and thus the perspectives of child and adolescent psychiatry and psychology in B&H are worrisome.

Unfortunately, we were not able to get more precise data on the number of children and adolescent with special needs or the actual numbers of service providers or institutions providing services in the country. The complexity of the counties different disenfranchised levels the government makes it impossible to collect precise data and provide a proper analysis of the situation. There are 14 Ministries of Health in a 3.8 mil people country. In addition, the country has no agency or one governing

body to coordinate registries or all data collecting systems for tracking children and adolescents diagnosed or patients receiving treatments. Each canton or even municipality may have their own system, not communicating with other systems, or there is no system yet in place at all. Therefore, this study has many methodological shortfalls, which we are aware of and took them into the consideration. And, we can immediately say that B&H needs a centralized data collecting system in order to learn what are the needs of its population, comorbidity, prevalence of disabilities, what kinds of methodologies exist in the system, correct numbers of service providers, and therefore be able to do better policy planning and conduct a reform of Health and Education sector at all 14 levels.

Our data were collected on 143 professionals across 18 institutions that reported that they work with preschool, school age children and adolescents. 35 of them (24.47%) reported working with children over 50% of their total hours at work, and 34 of them (23.77%) worked exclusively with children and minors, which left us to conclude that 51,74% of professionals spend less than 50% of their work hours with children and minors. This showed a lack of treatment hours for children and adolescents, lack of "child-only" tailored services and departments in institutions. We know that 9% of children in B&H are delayed in growth and development (7), and that about 15% of population has some form of disability (1). Therefore, we can conclude that B&H has similar rates of disabilities, but the treatment hours reported by the professionals and the prevalence data from the world and B&H, raise a question of the intensity of treatments provided for the children detected. We also know from the WHO that in low and mid-income countries, which B&H is one of, 4 out of 5 people who need services for mental, neurological or substance use disorders, do not receive them (16), which is the trend these data confirm in B&H. The next question naturally raised then is the quality or the kind of the treatments these institutions do offer. No evidence based validated screening instruments are standardized in B&H, so the well child health-checks are routine visit that we know are a weak opportunity for early detection of any disorders. These mandatory visits need to become something systematical with the use of validated screening tools, which would immediately aid in early detection and therefore prevention of severe lifelong disorders for many children.

On the other hand, from the survey we know that most of the treatments provided are education-rehabilitation based, but we know that in the low and mid-income countries, most of the intervention in mental and neurological disorders are neither evidence-based nor of high quality (17). This makes us also emphasize the importance of updating graduate programs training for the professionals and introducing novel research-based methodologies and validated assessment tools into practice. In addition to mandating validated instruments to be used in practice in order to detect, monitor and provide treatment for these vulnerable groups.

Not all institutions worked with variety of disabilities and disorders. Though, it is important to mention that at each institution different teams of professionals existed,

and psychologists and psychiatrists might have been or not part of the teams at all. This made it difficult to focus only on child and adolescents psychiatry and psychology and to make clear conclusions for these professions. Uncontrolled variable in our study also was the fact that some professions are naturally focused on only few areas of difficulties, for example, speech and language therapists work with children having speech and language disorders primarily. Still, we found that institutions also reported that 55.5% worked with diagnosis code F83 (Mixed specific developmental disorder), 33.3% with F89 (Unspecified disorder of psychological development), and 22.22% with F99 (Unspecified mental disorder) and F88 (Other disorders of psychological development). This lead us to conclude that large numbers of children and adolescence are registered under non-specific and vague codes, which then makes it much more difficult to assign proper intervention, provide such appropriate treatments and track their advancement. The most interesting result is that 147 children and adolescent were registered for the first time in 2014 under the code of F80 (Phonological disorder), and that 72% of surveyed institutions mentioned that they work with children with this diagnoses. The prevalence of speech and language disorders in the world is high, in the USA around 18.8% of children ages 6 to 21 receive services under this category (18). This tells us that most of the institutions provide services mostly for youth with mild disabilities that affect language development and then actually devote majority of their time working with children that are typically developing and children with language and communication difficulties.

WHO in the report issued in 2013 stated that mental, neurological and substance use disorders account for top ten leading causes of years lived with disability and 10% of the global burden of disease (19). The World Economic Forum in 2011 estimated that in the next 20 years, global impact of mental disorders in terms of lost economic output will amount to US$ 16 trillion (20). This tells us what a significant concern not just public health wise, but also economic wise this is, and it provides again a red flag and proof for the importance of early detection and proper intervention at an early age. The guardians of public health, the government, needs to partner up with key stakeholders and have a leading role in the policy reform, destigmatization and rising awareness, increasing the quality of services provided and updating higher education and professional development for the service providers for children and adolescence with disabilities. Education on all levels is the key message. If we could educate the population and decrease stigma, therefore increase early detection and treatment as prevention of life long disabilities. In order to then strengthen the intervention and treatment, we have to educate professionals to use standardized tools to better detect, monitor and treat children and adolescents. The child and adolescent psychiatry and psychology should not dissipate in B&H, they should be advanced and given support as multidisciplinary approach to healthy development of every child.

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References

1. Who.int. [Home page on the Internet].Switzerland: World health Organization; c2015 [updated 2015 Oct 18, cited 2015 November 26]. Disability and health; [about 2 screens]. Available from: http://www.who.int/mediacentre/factsheets/fs352/en/
2. Boyle C, Boulet S, Schieve L, Cohen R, Blumberg S, Yeargin-Allsopp M et al. Trends in the Prevalence of Developmental Disabilities in US Children, 1997-2008. Pediatrics. 2011;127(6):1034-1042.
3. Perou R, Bitsko R, Blumberg S, Pastor P, Ghandour R, Gfroerer J et al. Mental Health Surveillance Among Children — United States, 2005–2011. Centers for Disease Control and Prevention MMWR. 2013;62(2):1-35.
4. Ravens-Sieberer U, Wille N, Erhart M, Bettge S, Wittchen HU, Rothenberger A et al. Prevalence of mental health problems among children and adolescents in Germany: results of the BELLA study within the National Health Interview and Examination Survey. European Child & Adolescent Psychiatry. 2008;17(S1):22-33.
5. Cdc.gov. [Home page on the Internet] .USA: Centers for Disease Control and Prevention; c2015 [updated 2015 November 12, cited 2015 November 26]. CDC Features – Children's Mental Health - New Report; [about 2 screens]. Available from: http://www.cdc.gov/features/childrensmentalhealth/
6. UN Office of the High Commissioner for Human Rights (OHCHR). Handbook for parliamentarians on the Convention on the Rights of Persons with disability: from exclusion to equality realizing the rights of persons with disabilities. Geneva (Switzerland): UN Office of the High Commissioner for Human Rights (OHCHR); 2007.
7. UNICEF Bosnia and Herzegovina. Study of the situation of vulnerable groups of children and policy framework and strategies that support the services of social protection and inclusion of children in Bosnia and Herzegovina - Situation Analysis. UNICEF Office for Bosnia and Herzegovina; 2011.
8. Pilav A, Lolic A, Abdelbasit A, Mitrovic D, Jokic I, Stijak M. Bosnia and Herzegovina Multiple indicator cluster survey 2011–2012. UNICEF Office for Bosnia and Herzegovina; 2013.
9. Dipa D, Fazlic S. Knowledge, opinions and experiences related to children with developmental disabilities - quantitative research findings. Sarajevo (Bosnia and Herzegovina): UNICEF Office for Bosnia and Herzegovina; 2013.
10. United Nations Children's Fund. Children and young people with disabilities: Fact sheet. UNICEF New York; 2013.
11. The African Child Policy Forum. The African Report on Children with Disabilities: Promising starts and persisting challenges. Addis Ababa: The African Child Policy Forum (ACPF); 2014.
12. Green S, Davis C, Karshmer E, Marsh P, Straight B. Living Stigma: The Impact of Labeling, Stereotyping, Separation, Status Loss, and Discrimination in the Lives of

Individuals with Disabilities and Their Families. Sociological Inquiry. 2005;75(2):197-215.
13. Gray DE. Perceptions of stigma: the parents of autistic children. Sociology of Health & Illness. 1993;15(1):102-120.
14. Wittchen HU, Jacobi F, Rehm J, Gustavsson A, Svensson M, Jönsson B et al. The size and burden of mental disorders and other disorders of the brain in Europe 2010. European Neuropsychopharmacology. 2011;21(9):655-679.
15. Loga S. Postgraduate study in CAPP in Sarajevo (2001-2003). In: Lagerkvist B, ed. Children and youth in the aftermath of war in Bosnia and Herzegovina. A joint master project on child and adolescent psychiatry and psychology between Sarajevo University and Umeå University. Report No 3:2008. Division of Child and Adolescent Psychiatry. Department of Clinical Sciences. Umeå University, Sweden. ISSN: 0349-0815.
16. World Health Organization. MhGAP Intervention Guide for Mental Neurological and Substance-use Disorders in non-specialized Health Settings. Geneva (Switzerland): World Health Organization; 2010.
17. Kieling C, Baker-Henningham H, Belfer M, Conti G, Omigbodun O, Rohde LA et al. Child and adolescent mental health worldwide: evidence for action. The Lancet. 2011;378(9801):1515-1525.
18. Heward WL. Exceptional children: an introduction to special education. 10th ed. Boston: Pearson; 2013.
19. World Health Organization. Investing in mental health: evidence for action. Geneva (Switzerland): World Health Organization; 2013.
20. Bloom DE, Cafiero ET, Jané-Llopis E, Abrahams-Gessel S, Bloom LR, Fathima S et al. The Global Economic Burden of Non-communicable Diseases. Geneva (Switzerland): World Economic Forum; 2011.

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TRENUTNO STANJE I PERSPEKTIVE DJEČIJE I ADOLESCENTNE PSIHIJATRIJE I PSIHOLOGIJE U BOSNI I HERCEGOVINI

Apstrakt

Cilj ovog istraživanja bio je da se utvrdi trenutačno stanje dječije i adolescentne psihijatrije i psihologije u Bosni i Hercegovini, a na osnovu nalaza, ukazano je na neke moguće perspektive u budućnosti u ovim oblastima. U tu svrhu, dizajniran je i distribuiran upitnik u vezi sa postojećim stanjem usluga u dječijoj i adolescentnoj psihijatriji i psihologiji u zemlji. Upitnik su ispunili predstavnici 18 različitih državnih institucija (psihijatrijske klinike, centri za mentalno zdravlje, zdravstvene klinike i centri za rani razvoj kod djece) širom Bosne i Hercegovine. Podaci su prikupljeni od ukupno 143 stručnjaka i fokusirani su na maloljetnike, odnosno, djecu u dobi od rođenja do 18 godina. Stručnjaci su izvjestili da se 47,47% njihovog rada sa pacijentima odnosi na rad sa djecom sa tipičnim razvojem, dok je prosječni procenat rada sa djecom s posebnim potrebama za sve institucije iznosio 52,53%. Ukupno 143 stručnjaka koji su radili sa predškolskom djecom i maloljetnicima naveli su da je 35 njih (24,47%) radilo direktno sa djecom preko 50% radnog vremena, a 34 (23,77%) radilo je isključivo sa djecom i maloljetnicima. Na osnovu prikupljenih podataka i sprovedene deskriptivne analize, date su neke preporuke za budućnost.

Ključne riječi: dječija psihologija, dječija psihijatrija, Bosna i Hercegovina, adolescentna psihijatrija.

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Review article

DEVELOPMENT OF CHILD AND ADOLESCENT PSYCHIATRIC SERVICES IN CENTRAL EUROPE: HEALTH POLICY IMPLICATIONS OF THE SITUATION IN SWITZERLAND, GERMANY AND THE NETHERLANDS

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Abstract

Child and adolescent psychiatry is a young medical specialty that is in charge of mentally disturbed children and adolescents and their families. The discipline is in close contact with pediatrics and general psychiatry as well as with psychology, educational sciences and social work. In the core of child and adolescent psychiatry are the developmental perspective and the social psychiatric approach that integrates the family system and other relevant psychosocial systems like school or peer-groups. Developmental psychopathology approaches are the basis of all etiological explanations of child psychiatric disorders.

In central Europe, child and adolescent psychiatry has evolved in different ways. Switzerland has the highest concentration of child and adolescent psychiatrists worldwide and, as a consequence, is focused mainly on individual psychotherapeutic approaches. In Germany, the number of child and adolescent psychiatrists has been insufficient for a long period of time so that the approach is more focused on social psychiatry where a child and adolescent psychiatrist leads a team of psychologists, social pedagogues and social workers. In the Netherlands

child and adolescent psychiatry is clearly focused on evidenced based medicine, but has been taken out of the medical system in 2015 and has become part of community care together with social work and therapeutic pedagogy.
In many Balkan countries child and adolescent psychiatry has a long tradition but the number of child and adolescent psychiatrists is low in comparison to western and central European countries. Currently there are many threats that endanger child and adolescent psychiatry as an independent and powerful medical specialty that is of high relevance to compete the various challenges for children and adolescents in modern societies and especially in societies in transition.

Key words: child and adolescent psychiatry, social psychiatry, developmental psychopathology.

Introduction

In contrast to general psychiatry child and adolescent psychiatry (CAP) is committed to both a developmental and a multi-professional approach. The concepts of developmental psychopathology (1) and the knowledge of greater chances for changes in childhood and adolescence are of high importance. The basis of the multi-professional treatment approach is a bio-psycho-social comprehension of diseases (2), which integrates besides biological/medical also psychological and social factors in the etiology of a disorder. Therefore educational and social sciences are closely connected to CAP (3).

The majority of child and adolescent psychiatrists implement this bio-psycho-social approach in their daily work where educational and socio-psychiatric methods are as important as psychotherapeutic or pharmacotherapeutic interventions. As the majority of our patients (still) live with their families it is essential to include parents in the treatment (4), a second huge difference to the approach of general psychiatry.

Equifinality (many different early experiences / life events can lead to the same psychological disorder) and multifinality (the same early experiences / life events can be followed by different developmental outcomes) (5) are fundamental principles of developmental psychopathology that guide child and adolescent psychiatric concepts of etiology. The view of infantile development as an interaction between caregivers and child and therefore the interplay between them for the etiology of mental disorders makes it easier to move away from simple assignments of guilt. Furthermore results of longitudinal studies show that even an accumulation of several psychosocial risk-factors do not necessarily lead to a mental disorder (6, 7). The other way round children without severe psychosocial risk-factors can show – because of infantile factors like difficult temperament, hyperactivity and impulsivity – emotional and behavioral difficulties, which can overstrain the family. Even „good enough“ or competent parents can seem to be pathological under the stress of a child with severe psychopathology.

Child and adolescent psychiatry in Europe

Child and adolescent psychiatry (CAP) is a young medical specialty that is in charge of mentally disturbed children and adolescents and their families. As children rely on the support of their families or institutions that take care of them a social psychiatric approach is essential. The family system and other relevant psychosocial systems like school or peer-groups have to be integrated in the treatment. Therefore, the multidisciplinary approach connects CAP with pediatrics and general psychiatry as well as with psychology, educational sciences and social work. A second cornerstone of CAP is the developmental perspective. The integration of developmental psychology and child psychiatry was the origin of developmental psychopathology, where the methods and approaches of normative developmental psychology are used to disentangle the etiology and course of mental disorders.

It was already in 1954 that child and adolescent psychiatrists from different European countries came together in a little town of Switzerland to develop a medical society which was finally founded in 1960 under the name of "Union of European Paedopsychiatrists". In 1983 the organization changed its name into "European Society for Child and Adolescent Psychiatry (ESCAP)". ESCAP aims "to **promote** mental health of children and adolescents in Europe, to **increase** quality of life among children and families and to **ensure** children's right for healthy development and wellbeing" (8).

The European Union of Medical Specialists (UEMS; http:// www.uems.eu), that has been founded in 1958, is an organization that coordinates the training of medical doctors in more than 50 medical disciplines in 34 European countries. Of the Balkan countries Greece, Slovenia and Bulgaria are full members of the UEMS, Croatia is an associate member. The aim of UEMS is to set standards for high quality healthcare practice that are transmitted to the authorities and institutions of both the EU and the national medical associations in order to stimulate them to implement the recommendations of the UEMS in their healthcare system.

In the "Standards of Postgraduate Medical Specialist Training" UEMS describes the following training requirements for the specialty of child and adolescent psychiatry:

Table 1 Theoretical knowledge to be acquired by trainees of CAP (9)

1. Has advanced knowledge of normal **child development** from infancy and milestones. Knows how the child´s development can be distorted by abnormal biological, psychosocial and environmental influences, risk and protective factors.
2. Thorough knowledge of child and adolescent **safeguarding** and a comprehensive knowledge of the **legal framework** of the practice of child and adolescent psychiatry including relevant international conventions such as UN Convention on the Rights of the Child (1989) and the European Union Agenda for the Rights of the Child (2007).
3. Masters knowledge and skills to evaluate and handle **acute** child and adolescent psychiatric conditions.
4. Advanced knowledge of assessment, using a biopsychosocial approach, investigation and the use of international diagnostic systems (ICD and DSM), medical treatment and follow up, course and prognosis of **child and adolescent disorders**.
5. Advanced knowledge of **pharmacological treatment** of child and adolescent psychiatric conditions
6. Sound knowledge of psychological and **a range of psychotherapeutic treatment** methods
7. An understanding of **paediatrics**, particularly paediatric neurology and rehabilitation
8. Knowledge and understanding of advances in **medical technology** that are relevant to child and adolescent psychiatry
9. An understanding of **adult** psychiatric conditions, particularly in young adults and parents
10. An understanding of **drug and alcohol misuse** and its comorbidity with child and adolescent psychiatric conditions
11. An understanding of **environmental influences** on child and adolescent psychiatric conditions from conception to adulthood to include: pregnancy, family, child maltreatment, housing, neighbourhood, media (e.g. computer use, social media networking, gambling), school climate and other environmental stressors.
12. An understanding of **forensic psychiatry** including its organisation and duties, both criminal and civil frameworks of justice.

In table 2 there is an overview of the current situation (2012) of child and adolescent psychiatry and psychotherapy (CAPP) in European countries. The number of CAPP specialists varies enormously between the countries from 3217 children and adolescents per CAPP specialist in Switzerland to 75’000 children and adolescents per CAPP specialist in Poland.

Table 2 Child and adolescent psychiatry in European countries

Country	university departments in CAPP for training	and how many other university chairs are there	CAPP dep.ts for training	number of CAPP specialists (MD)	of which in private practice *(part time)*	CME/CPD obligatory	population in 1'000s	persons <20 yrs/% *<18 yrs* in 1000s	persons<20 *persons<18* per CAPP specialist (MD)	CAPP specia lists per 100'000 <20
Austria	4	1	8	65	40	no	8.134	1'859/23	28.600	
Belgium	4		4	350		yes	10.175	2'385/23	8.000	
Bulgaria	3	0	9	40			8.240	1'939/23.5	48.475	
Croatia	1	1	2	40		yes	4.672	1'125/24	32.000	
Czech Rep.	2	0	13	90	60	yes	10.286	2'524/24.5	28.000	
Denmark	5	3	10	86	19	no	5.400	1'313/24	15.263	
Estonia	1		2	20			1.421	372/26	18.600	
Finland	5	5	34 (15 ado)	401(142 ado)	145	no	5.236	1299 / 24	3.240	31
France	33	31	120	2000		no	58.805	15'010/25.5	7.500	
Germany	27	25	133	1166	647	yes	82.079	17'323/21	15.300	
Greece	1	1	4 +	220	110	no	10.662	2'477/23	11.259	
Hungary	1	0	15	85	5	yes	10.000	2'000/20	25.000	
Iceland	1	0	0	10	5	no	300	85/31	17.000	
Ireland	0?	2	9	47	0?	no	3.619	1'135/31	31.500	
Italy	25	28	60	1200	240	yes	57.333	11'279/20	9.490	
Latvia	1		3	26			2.385	614/25.7	23.600	
Lithuania	2		3	60			3.600	998/27.7	16.600	
Luxemburg	0	0	0	9	4		451,6	115.6/40	12.841	
Netherlands	9	9	5	335	32	no	16.500	3960/24	15.231	
Norway	4	5	19	156	10	no	4.580	*1'076/25*	*6.897*	
Poland	8	6	12	140	*100*	no	38.219	10'701/28	75.000	
Portugal	0	0	3	110	0?	no	10.000	2'500/24	22.727	
Romania	3	3	0	100	60	yes	22.000	5'670/27	60.000	
Russia	0	0	3	1668		yes	143.954	*31'622/22*	*25.000*	
Serbia&Monte	3	3	2	57	3	no	7.498	*1'467/20*	*25.737*	
Slovakia	3	0	5	113			5.393	1'575/29	14.000	
Slovenia	1	1	5	25	5	yes	2.000	500/25	20.000	
Spain	17	1	26	300	100	no	42.717	7'958/18.6	26.528	
Sweden	6	4	30	300	30	no	8.976	2'152/24	7.173	
Switzerland	5	5	16	507	317	yes	7.415	1631/22	3.217	31
Turkey	10	10	1	100	20	no	65.000			
Ukraine	0	1	40	438		yes	50.500	13'153/26	30.000	
U.K.	20	20	60	600	12	no	58.970	15'036/25.5	25.000	

UEMS (2013). The status of child and adolescent psychiatry in European countries (unpublished)

The current situation in Germany

With more than 150 child and adolescent hospitals, clinics and departments, more than 100 outpatient departments and more than 600 CAPs working in private practice (10) the child and adolescent psychiatric patient-centered care is currently on a high standard in Germany.

In Germany there are three different ways of outpatient child and adolescent psychiatric assessment and treatment. Attached to most child and adolescent psychiatric hospitals are outpatient departments that are subsidized with high flat-rates with the intention that they should take care of the most disturbed patients from difficult psychosocial backgrounds. Beside child and adolescent psychiatrists who work in individual settings and who are mostly focused on individual psychotherapy there is a third approach to child and adolescent psychiatric patient-centered care that is called “social psychiatry agreement”. This agreement between medical doctors and insurance companies allows an interdisciplinary work in a child and adolescent psychiatric private practice to offer a competent alternative and addition to inpatient treatment.

In those private practices CAPs are obliged to employ a staff of social-pedagogues and social workers with special training in any kind of therapeutic work (not a full psychotherapy training) as well as psychologists. The difficult question if a mentally disturbed child or adolescent needs more pedagogic or more psychiatric help

can be answered with "he or she needs pedagogic help because he/she is a child that has to be educated and psychiatric help because he/she is a patient" and can therefore "lead from a coexistence to a cooperation" (11) of educational and psychiatric care. This implicates the knowledge, that only with the know-how of different professions mentally ill children and adolescents can be helped in a sustainable way.

Child and adolescent care in structures of social-psychiatric practices is local and low-threshold work. A central task is the connection between somatic, psychiatric and social assessment for integrative therapeutic interventions.

In such a practice many of the duties are taken over by the non-medical co-workers:

Assessment:
1. Neuro-psychiatric Assessment
2. Broad Assessment of development and social behavior, including observation in social environment (school, Kindergarten)
3. Assessment of interactions und relationships as well as biographical history including observation of the patient in contact with his/her parents, care-givers and environment
4. Specific testing (psychological, developmental, capability/disability etc)

Therapy:
1. Establishment of an individual therapeutic program (medical and non-medical)
2. Consultation and psycho-education of the parents
3. Interventions during psychosocial crisis including contacting school, agencies, social welfare office/youth welfare office
4. Therapeutic pedagogic and developmental activities

Cooperation outside the practice with: Pediatricians, speech-therapists, physiotherapists, social welfare offices, hospitals etc., Kindergarten, schools, children's homes, foster parents, lawyers, guardianship court etc.

Through inclusion of the social environment the resources of the patient and his family can be used to strengthen the therapy process.

The current situation in Switzerland

Switzerland has one of the longest traditions of child and adolescent psychiatry in the world. It was the Swiss Moritz Tramer who was elected as the first president of the new society "Union of European Paedopsychiatrists" in 1954 (12). Since then child and adolescent psychiatry has developed into a strong medical specialty so that today (2013) in Switzerland there are more child and adolescent psychiatrists (N=650) than for example neurologists (N=530), gastroenterologists (N=326) or oncologists (N=293). With about 1.5 million children and adolescents under the age of 19 living in Switzerland (total Swiss population: nearly 8 million inhabitants) one

child and adolescent psychiatrist takes care of about 2300 children and adolescents in the population, what can be seen as the highest concentration of child and adolescent psychiatrists worldwide (13). About 500 CAPs work in private practice, another 200 work in hospitals or are in training.

With this high amount of CAPs working in private practice there is a long tradition of individual psychotherapy as standard approach. Patients with more complex psychiatric disorders or from difficult psychosocial backgrounds are mostly sent to outpatient departments of child and adolescent psychiatric hospitals which have, as a tradition, closer links to pediatric hospitals than in other countries.

These figures could lead to the misestimation that Swiss CAP is in a state of paradise. However several problems have to be mentioned:

- More than 70% of the Swiss child and adolescent psychiatrists are older than 50 years. This will lead to serious problems in the next decade when those doctors will retire.
- Currently it is difficult to attract young doctors for a specialization in our field. As a consequence, Swiss child and adolescent psychiatric hospitals have major difficulties to fill vacancies of medical doctors and have to engage psychologists instead.
- Most child and adolescent psychiatrists work in private practices (alone or with general psychiatrists or psychologists) and don't see more than about 50 patients per year. Psychodynamic approaches with frequent sessions are common so that even with an enormous number of CAP specialists it is difficult to get severely ill children and adolescents into specialized treatment.

The current situation of CAP in Switzerland can only be understood against the background of extremely high numbers of specialists and the long tradition of individual psychotherapy. Such a system of care can only work in a rich country with high expenses for specialized medical care. For most European countries and especially for the Balkan countries this model should not be transferred because a transfer would lead to a split between high standards of care for a small group that can afford these treatments and a large number that can't. As long as there is no fair distribution of resources between countries there should be a strong focus on fair distribution of resources inside a country.

The current situation in the Netherlands

Over the last decades the Netherlands had established one of the most developed standards of care for children with mental problems. Nine out of 14 child and adolescent psychiatric hospitals are located at university centres and the quality of scientific research is among the best internationally. Therefore it is no surprise that a great emphasis has been put on changing the system to an evidenced based system of care. Cognitive behavioural psychotherapeutic approaches are most popular, and the scientific approaches are strongly focused on biological research.

However, despite this high level of care and research the Netherlands have radically changed the way in which child and adolescent psychiatric services are provided to children and adolescents. As of Jan 1st 2015 CAP has been taken out of the medical system (health insurance) and, despite massive opposition, is now under the responsibility of the civil authorities in the local communities.

This decision is unique in Europe and has terminated child and adolescent psychiatry as a medical specialty. More important, it threatens the delivery of appropriate mental health care for children in the Netherlands. It is difficult to understand why children with mental disorders are treated differently from minors with somatic complaints. The gap between child and adolescent psychiatry and adult psychiatry that is a concern in many countries will become much bigger so that the pathway of care across the lifespan will be disrupted for these mentally disordered children.

Conclusions for the development of child and adolescent psychiatry in Bosnia and Herzegovina

In Bosnia and Herzegovina child and adolescent psychiatry has a long tradition but currently the number of child and adolescent psychiatrists is very low in comparison to western and central European countries. There are many threats that endanger child and adolescent psychiatry as an independent and powerful medical specialty that is of high relevance to compete the various challenges for children and adolescents in modern societies and especially in societies in transition (4).

The transition process in general and especially the war in Bosnia and Herzegovina have broken up societal structures and lead to severe traumatisation of many children and adolescents. In contrast to the enormous need for help the number of facilities and trained personnel in child psychiatric settings is far too low.

One of the major problems of child and adolescent psychiatry in Bosnia and Herzegovina is the fact that CAP is not a medical speciality but still a subspecialisation of general psychiatry.

As a consequence the core decisions concerning the development of child psychiatry are taken by the management of the general psychiatric hospitals. This is especially true for the employment of new young professionals and the training they will get. To explain and stress the importance of promoting child and adolescent psychiatry as a profession is a long lasting struggle of those very few who work in the field (14).

Training in child and adolescent psychiatry should become a more important issue for the medical system in Bosnia and Herzegovina. After a master course in 2002-2004 which was organized by the Medical Faculty of the University of Sarajevo in collaboration with the Medical Faculty of the University of Umea (Sweden), there was no other training in child psychiatry in Bosnia and Herzegovina.

For the further development of CAP in Bosnia and Herzegovina it is essential that the BiH Society of Child and Adolescent Psychiatry applies for membership

in the UEMS so that the UEMS can help to implement international standards of training. As a first step the Swiss Society of Child and Adolescent Psychiatry has decided to support the attendance of BiH delegates in the annual UEMS meetings.

References

1. Cicchetti D, Rogosch FA. A developmental psychopathology perspective on adolescence. Consult Clin Psychol. 2002;70(1):6-20.
2. Resch F. Entwicklungspsychopathologie des Kindes- und Jugendalters. Weinheim: Psychologie Verlags Union; 1996.
3. Schmeck K. Bezugsdisziplinen der Kinder- und Jugendpsychiatrie. In: Fegert JM, Schrapper Ch, editors. Handbuch Jugendhilfe-Jugendpsychiatrie. Weinheim und München: Juventa; 2004. p. 251-7.
4. Daneš-Brozek V. Contemporary characteristics of the developmental age psychopathology. Psychiatr Danub. 2012;24(Suppl.3):384-7.
5. Cicchetti D, Rogosch FA. Equifinality and multifinality in developmental psychopathologyEquifinality and multifinality in developmental psychopathology. Development and Psychopathology. 1996;8(4):597-600.
6. (6)Laucht M, Esser G, Schmidt MH. Developmental outcome of infants born with biological and psychosocial risks. J Child Psychol Psychiatry. 1997;38(7):843-53.
7. (7) Caspi A, Sugden K, Moffitt TE, Taylor A, Craig IW, Harrington H, et al. Influence of life stress on depression: moderation by a polymorphism in the 5-HTT gene. Science 2003;18;301(5631):386-9.
8. (8) ESCAP [homepage on the Internet]. Aims and goals of ESCAP [cited 2014 Mar 21]. Geneve: European Society for Child and Adolescent Psychiatry – ESCAP. Available from: http://www.escap.eu/index/aims-and-goals.
9. (9) UEMS. Training Requirements for the Specialty of Child and Adolescent Psychiatry. European Standards of Postgraduate Medical Specialist Training. Unpublished final draft of chapter 6 [cited 2014 Mar 21]. UEMS; 2013. Available from: http://www.uemscap.eu/.
10. Berufsverband für Kinder- und Jugendpsychiatrie, Psychosomatik und Psychotherapie in Deutschland e. V. und Bundesarbeitsgemeinschaft der Leitenden Klinikärzte für Kinder- und Jugendpsychiatrie, Psychosomatik und Psychotherapie e.V. [cited 2014 Mar 21]. Available from: http://www.kinderpsychiater.org/.
11. Fegert JM, Schrapper Ch, editors. Handbuch Jugendhilfe-Jugendpsychiatrie. Weinheim und München: Juventa; 2004.
12. ESCAP [homepage on the Internet]. History of ESCAP [cited 2014 Mar 21]. Available from: http://www.escap.eu/index/history.
13. SGKJPP. Gegenwart und Zukunft der Kinder- und Jugendpsychiatrie in der Schweiz [cited 2014 Mar 21]. Available from: http://www.sgkjpp.ch/SGKJPP/user_upload/documents/Fachleute/Ki_u_Ju_Psychiatrie_Bericht_an_BAG_definitiv.pdf.
14. Daneš-Brozek V. Child and adolescent psychiatry in Bosnia and Herzegovina. In: Schmeck K, Schlüter-Müller S, Goth K, Daneš-Brozek V, Polnareva N, Suli A, et al. Improving the situation of children with psychiatric disorders in Southeast Europe. Application to the SCOPES research program of the Swiss National Science Foundation. 2011. p. 22-5.

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RAZVOJ PSIHIJATRIJSKIH USLUGA ZA DJECU I ADOLESCENTE U CENTRALNOJ EVROPI: IMPLIKACIJE SITUACIJE U ŠVICARSKOJ, NJEMAČKOJ I HOLANDIJI NA ZDRAVSTVENE POLITIKE

Apstrakt

Dječija i adolescentna psihijatrija je mlada medicinska specijalnost koja je zadužena za djecu i adolescente sa mentalnim poteškoćama i njihove porodice. Ova disciplina je u bliskom kontaktu sa pedijatrijom i općom psihijatrijom, kao i sa psihologijom, obrazovnim naukama i socijalnim službama. U srži dječije i adolescentne psihijatrije su razvojna perspektiva i socijalni psihijatrijski pristup koji integrišu porodični sistem i druge relevantne psihosocijalne sisteme, poput škole ili vršnjačkih grupa. Razvojni psihopatološki pristupi su osnova svih etioloških objašnjenja psihijatrijskih poremećaja kod djece.

U Centralnoj Evropi, dječija i adolescentna psihijatrija evoluirala je na različite načine. Švicarska ima najveću koncentraciju dječijih i adolescentnih psihijatara u svijetu i, kao posljedica toga, usredsređena je uglavnom na individualne psihoterapeutske pristupe. U Njemačkoj, broj dječijih i adolescentnih psihijatara nedovoljan je već duži vremenski period, tako da je pristup više usmjeren na socijalnu psihijatriju gdje dječiji i adolescentni psihijatar vodi tim psihologa, socijalnih pedagoga i socijalnih radnika. U Holandiji, dječija i adolescentna psihijatrija se jasno fokusira na medicinu zasnovanu na dokazima, ali će biti izvučena iz medicinskog sistema u 2015. godini i postat će dio njege u zajednici, zajedno sa socijalnim radom i terapijskom pedagogijom.

U većini balkanskih zemalja dječija i adolescentna psihijatrija ima dugu tradiciju, ali je broj dječijih i adolescentnih psihijatara nizak u poređenju sa zemljama Zapadne i Centralne Evrope. Trenutno postoje mnoge prijetnje koje ugrožavaju dječiju i adolescentnu psihijatriju kao nezavisnu i snažnu medicinsku specijalnost koja je od velike važnosti za borbu sa različitim izazovima za djecu i adolescente u savremenim društvima, a posebno u društvima u tranziciji.

Ključne riječi: dječja i adolescentna psihijatrija, socijalna psihijatrija, razvojna psihopatologija.

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Professional article

CHILD AND ADOLESCENT MENTAL HEALTH SERVICES CLINICAL ACADEMIC GROUP AT THE MAUDSLEY HOSPITAL IN LONDON

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Abstract

Objective: This article is based on the lecture delivered at the scientific meeting of the Academy of Sciences and Arts of Bosnia and Herzegovina, Department of Medical Sciences and UNICEF meeting on 'Child and Adolescent Psychiatry and Psychology in Bosnia and Hercegovina – current status and perspectives' held in Sarajevo from 5 - 7th April 2014. **Materials and methods:** The focus is on the need to prioritise the provision of mental health services for children and young people. **Results:** A brief history and description of the development of Child and Adolescent Mental Health Services in the UK, and specifically in England is provided. National Policy and clinical Guidelines are highlighted. A model of Child and Adolescent Mental Health Services (CAMHS) at the South London and Maudsley NHS Foundation Trust is described as an example of good practice. **Conclusions:** Evidence based interventions and proven service models should inform all planning. Collaborative decision making in clinical practice, an emphasis on quality standards and outcomes are at the core of well run services. The views of children, young people and their families are crucial in establishing new services. Transition to adult mental health services will require clear pathways and protocols.

Key words: mental health services, children, adolescents.

Background

There has been evidence of rising prevalence rates of childhood and adolescent mental health disorders across cultures and countries (1). More than half of all adults with mental health problems are diagnosed in childhood. Less than half were treated appropriately at the time (2). As many as three quarters of adult disorders stem from childhood (3). Although there are few studies which collate epidemiological data across the world (4, 5) it is likely that most mental, behavioural and developmental disorders across cultures start in childhood and adolescence (6).

It is estimated that in the UK as many as 20 % of young people will suffer from mental health problems before they reach the age of 18 (7). More recent data in the UK point to ever increasing rates with 1 in 10 children and young people aged 5 - 16 suffering from a diagnosable mental health disorder (8). As many as 1 in every 12 and 1 in 15 ,children and young people respectively, are self-harming and the rate of admissions for self harm has risen by 68% over the last 10 years. (9). Children raised in care and the young offending population appear to be even more at risk (10, 11). The number of young people aged 15-16 with depression nearly doubled between the 1980s and the 2000s (12) and the proportion of young people aged 15-16 with a conduct disorder also doubled between 1974 and 1999 (13).

The History of Child and Adolescent Mental health services

The history of CAMHS in the UK can be traced back to the Child Guidance movement which originated in the USA at the turn of the century. The model was transferred in the 1950-ies to the UK although in the annals of the Maudsley Hospital it is recorded that Dr William Moodie, the Deputy Medical Superintendent of the Maudsley Hospital set up a children's department at the Maudsley Hospital in 1928. With the establishment of community and hospital outpatient services in the early 1970 - ies child and adolescent psychiatry drew closer to the study and practice of adult mental health provision. With the establishment of academic child and adolescent psychiatry the practice became more aligned with mainstream medicine.

Over the last 10 years CAMH Services in the UK underwent some of the largest organisational changes since the inception of the services. Following the publication of the National Service Framework for Children, Young People and Maternity Services (14) which established standards for promoting health and wellbeing in children and adolescents comprehensive CAMHS were developed up and down the country.

The structure of CAMHS

CAMHS can be managed as part of a Mental Health Trust together with Adult Mental Health Services, or are part of Acute Hospital Trusts, or Community Trusts. Some

services sit in Children's Trusts where Social Services, Education and Health come together to jointly commission and to provide children's services including CAMHS.

In order to bridge the gap between demand and capacity CAMHS was conceptualised across 4 tiers of services (15). Although the terminology applied to this stratification has changed over time including phrases such as 'universal', 'targeted' and 'specialist' services (16) the philosophy of a stepped care approach in the prevention and management of child and adolescent mental health has remained the same. The basic principles of a tiered approach include the involvement of primary care services in addressing the wellbeing of children and young people's emotional and mental health needs such as can be provided by general practice or schools and the establishment of specialist services to provide specialist mental health care.

Thus at Tier 1, GPs , Health Visitors, School Nurses, Social services, Teachers, Voluntary agencies and juvenile justice workers are trained to identify mental health problems early in their development, to offer general advice and to pursue opportunities for promoting mental health and preventing health problems. At Tier 2 mental health services for children and adolescents are provided by uni-professional CAMHS staff who network with community paediatricians, educational psychologists and teachers. These CAMHS mental health workers are trained to deliver training to Tier 1, consultation to professionals and families, assessment which may trigger an intervention or a referral to other tiers of service. The greatest numbers of children will be seen at Tiers 1 and Tier 2 and it is therefore important for primary care, social services and education to have structures which can maximise the contribution of CAMHS professionals at these tiers.

Tier 3 are specialist services for more severe, complex and chronic disorders. They are staffed by multidisciplinary teams either working in the community or as part of an outpatient setting in a hospital. The staff includes child and adolescent psychiatrists, clinical psychologists, social workers, nurses and child psychotherapists. The core CAMHS services in each district are expected to provide assessment and treatment of all child and adolescent mental disorders, process referrals to Tier 4, contribute to service development, training and consultation to Tier 2 and Tier 1 and take part in research and further development of services.

Tier 4 services include specialised outpatient teams, such as forensic teams, teams for sexually abused children, eating disorders services, specialist day care provision, inpatient adolescent units and adolescent Psychiatric Intensive Care Units (PICUs). These services are provided on a supra – district level and focus on building up their respective areas of expertise (15, 17).

Some children will progress in treatment through the services in the manner of a stepped care approach and some will be seen simultaneously by specialist and core services.

Much attention over the years has been devoted to the development of 24 hours emergency services either by CAMH services on their own or in conjunction with adult services where there are insufficient CAMHS resources. In some areas where

personnel is scarce patients and families are able to access specialist CAMHS telephone advice via staff in emergency departments of hospitals.

Capacity in inpatient and outpatient services

Overall mental health policy in England and Wales has advocated community services and there has been a steady reduction of beds particularly in the sphere of adult mental health services. The National In-patient Child and Adolescent Psychiatry Study (NICAPS) (18), was set up to identify and to describe all child and adolescent psychiatric in-patient units in England and Wales. The study identified 80 units with 900 beds. The NICAPS study showed that provision of beds at the time was not based on need (18). The average was 3.4 beds per 100 000 under 18 years population whereas 24–40 CAMHS beds are required per 1million total population (19). Further the Royal College of Psychiatrists recommends 3–4 beds for young people with severe learning disability and 2–3 beds for those with moderate learning disability and 1 low-secure bed per 1million total population (20). Calculations of bed need for 0–13-year-olds, based on data summary of recommended needs for under -12 year olds admissions recommended around 200 beds for England and Wales. This equates to approximately one bed for 0–13-year olds per total population of 265 000 (21).

Although the profession generally approves the model of community and intensive outreach based services it is the view of clinicians in England that the number of beds for adolescents is still inadequate. In everyday clinical practice it is not unusual for young people to be stranded in emergency departments awaiting admission. Fortunately the practice of admitting adolescents and children to adult wards has stopped although a number of young people are still treated on paediatric wards particularly in emergency situations and in areas where inpatient services are not available.

There are recommended norms for community services as well. It is estimated that the total number of staff required in a community or outpatient service in a non –teaching environment is 19.3 and 24.2 in a teaching environment, both per 100 000 general population up to 18th birthday (22).

Evidence Based Practice and Outcome focussed CAMHS

The last decade has witnessed the proliferation of clinical practice guidelines in mental health many of which apply to children and young people under 18. The National Institute for Health and Care Excellence in England and Wales sets standards, which are not always easy to adhere to, since there are insufficient numbers of trained staff in CAMHS. In England in the last 3 years the government has funded a project entitled Children and young People's Improving Access to Psychological Therapies (CYP-IAPT) ushering in organisational changes and improving quality standards. For instance, existing staff are being additionally trained in Cognitive Behavioural Therapy techniques, parenting intervention and Interpersonal psychotherapy in the

management of common child psychiatric disorders. Outcome measures are routinely collected after each session. Children and young people are being involved in the design and development of services. The project is now in its third year with almost three quarters of services across the NHS, social services and voluntary sector have been involved in the project (www.iapt.nhs.uk/cyp-iapt) (23).

Outcome measures

Clinician rated outcomes and patient rated outcomes are becoming regular features of treatment and are used to inform treatment decisions in all CAMHS. Two major bodies in England have been developing outcome measures and collating meaningful outcomes from a range of establishments and clinics across the country in order to inform further developments of the tools used: the Clinical Outcomes Research Consortium (24) and the CYP-IAPT have each contributed to Improving Children and Young People's Health Outcomes (25). Teacher report dimensional scales are sought where possible and represent an invaluable source of information.

The Maudsley Model of CAMHS

The Maudsley Hospital is part of the South London & Maudsley NHS Foundation Trust (SLaM) and the Kings Health Partners (KHP) Academic Health Sciences Centre (AHSC). KHP have established a pioneering collaboration between one of the world's leading research-led universities and three of London's most successful NHS Foundation Trusts (University Hospital Centres). The model is based on the organisational mergers of top academic institutions (including medical schools) with hospitals and community services. The AHSC includes seven hospitals and over 150 community based services. It is responsible for seeing 2 million patients each year, has 25,000 employees and 19,500 students, and an approximate £2 billion annual turnover. It brings together the best of basic and translational research, clinical excellence and world-class teaching to deliver advances in physical and mental healthcare (26).

KHP is continually seeking and bringing about swifter and more effective improvements in health and wellbeing, is devoted to its community and the wider population by combining the best of research, clinical excellence and world class teaching to deliver ground-breaking advances in healthcare.

SLaM Services offer services to people with severe and enduring mental illness. In addition, the Trust promotes good mental health, early intervention to prevent more serious problems and provides support to primary care in dealing with people with less severe problems. The Trust has a strong community focus and the services are provided in a wide range of settings including people's own homes, GP practices, day centres, residential and nursing homes, prisons and hospitals. The Trust's core value states that 'everything we do is to improve the experience of people using our services and to promote mental health and wellbeing for all'.

Clinical Academic Groups (CAGs) are the organisational building blocks of King's Health Partners. The CAMHS CAG has been successful in becoming a viable entity in its own right. The Child and Adolescent Mental Health CAG provides mental health services for children and young people with emotional, behavioural, psychiatric and neurodevelopmental problems. Services cover a spectrum of inpatient, outpatient and community based resources delivering care to local and national patients. SLaM CAMHS is one of the largest mental health services for children and adolescents in the country providing services to a general population of 1.2 M which includes a child population of 250 000. There are 650-700 staff working for the SLaM CAMHS CAG. 68 hospital beds are supported by outpatient clinics in each of the local services.

The clinical process

At the Maudsley Hospital and in its inpatient and community settings, the comprehensive assessment process is usually underpinned by a set of preliminary questionnaires some of which are completed on the internet before the child, young person or family attend their appointment. An example is the Development and Wellbeing Assessment (27) which provides the clinician with a baseline of outcome measures, an indication of relevant diagnostic indicators and offers a preliminary ICD 10 and DSM IV diagnosis. The assessment process is aided by other benchmarking outcome measures including self-report and clinician ratings. The correct diagnosis forms the focus of intervention but much attention is also paid to the context and other systemic factors. Therapies offered are evidence based and NICE Guideline compliant. The choice of treatment is the result of a collaborative decision making process with the young person and their family. Information is provided on the risks and benefits of modalities of treatment and medications. The entire process is aided through the use of electronic records. Where possible audio and video conferences are held with colleagues in other services and a programme involving video linked assessments and treatment with children and adolescents is in development. The work is carried out in close partnership with the patient's family, school and partner agencies.

Conclusions

All children and young people under the age of 18, irrespective of their gender, sexuality, race, religion, ability and culture should have access to a comprehensive CAMHS based on the best available evidence and provided by well trained staff with an appropriate range of skills and competencies.

The provision and commissioning of services needs to be based on sound epidemiological knowledge, cultural values and local demographic characteristics. Clear protocols of interagency collaboration must be set up between health, education, social services and voluntary agencies. Emergency services need to support core services with access to inpatient facilities and prompt mental health assessments.

Evidence based interventions and proven service models should inform all planning. The views of children, young people and their families are crucial in establishing new services. There should be an emphasis on quality standards and outcomes. Transition to adult mental health services will require collaborative models of care and clear protocols.

Training and on-going supervisory arrangements are intrinsic to any planning of future services. Workforce and skills issues need to be continuously addressed in view of emerging research and evidence based clinical practice guidelines.

In view of the diminishing resources, even in high income countries, and the lack of resources and small numbers of trained professionals in developing countries it is important to develop services aimed at prevention and early treatment that can be offered by non-specialist mental health workers in primary care settings, in schools and settings run by voluntary agencies (28).

References:

1. WHO. Atlas child and adolescent mental health resources – global concerns: Implications for the future. WHO; 2005.
2. Kim-Cohen J, Caspi A, Moffitt TE, Harrington H, Milne BJ, Poulton R. Prior juvenile diagnoses in adults with mental disorder: developmental follow-back of a prospective-longitudinal cohort. Arch Gen Psychiatry. 2003;60:709-17.
3. Kessler RC, Berglund P, Demler O, Jin R, Merikangas KR, Walters EE. Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. Archives of General Psychiatry. 2005;62:593-602.
4. Polanczyk G, de Lima MS, Horta BL, Biederman J, Rohde LA. The worldwide prevalence of ADHD: A systematic review and metaregression analysis. American Journal of Psychiatry. 2007;164:942-8.
5. Kessler RC, Angermeyer M, Anthony JC, DE Graaf R, Demyttenaere K, Gasquet I, et al. Lifetime prevalence and age-of-onset distributions of mental disorders in the World Health Organization's World Mental Health Survey Initiative. World Psychiatry. 2007;6(3):168-76.
6. Leckman JF, Leventhal BL. Editorial: a global perspective on child and adolescent mental health. J Child Psychol Psychiatry. 2008 Mar;49(3):221-5.
7. Audit Commission for Local Authorities and the National Health Service in England and Wales. Children in Mind: Child and Adolescent Mental Health Services. London, Audit Commission; 1999.
8. Green H, McGinnity A, Meltzer H, Ford T, Goodman R. Mental health of children and young people in Great Britain, 2004. Basingstoke: Palgrave Macmillan; 2005.
9. Mental Health Foundation. Truth hurts: report of the National Inquiry into self-harm among young people. London: Mental Health Foundation; 2006.
10. Sempik J, Ward H, Darker I. Emotional and behavioural difficulties of children and young people at entry into care. Clin Child Psychol Psychiatry. 2008;13(2):221-33.
11. Office for National Statistics. Psychiatric morbidity among young offenders in England and Wales. London: Office for National Statistics; 1997.
12. Nuffield Foundation. Social trends and mental health: introducing the main findings. London: Nuffield Foundation; 2013.

13. Collishaw S, Maughan B, Goodman R, Pickles A. Time trends in adolescent mental health. J Child Psychol Psychiatry. 2004;45(8):1350-62.
14. Department of Health, Department for Education and Skills. National Service Framework for Children, Young People and Maternity Services. The Mental Health and Psychological Well-Being of Children and Young People [cited 2014 Dec 1]. London: Department of Health; 2004. Available from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/199959/National_Service_Framework_for_Children_Young_People_and_Maternity_Services_-_The_Mental_Health__and_Psychological_Well-being_of_Children_and_Young_People.pdf.
15. NHS Health Advisory Service. Together we stand: thematic review of the commissioning, role and management of child and adolescent mental health services. London: HM Stationery Office; 1995.
16. Department of Health, Social Services and Public Safety. Child and Adolescent, Mental Health Services: A Service Model [cited 2014 Dec 1]. DHSSPS; 2012. Available from: https://www.health-ni.gov.uk/sites/default/files/publications/dhssps/camhs-service-model_0.pdf.
17. Street C. In-patient mental health services for young people--changing to meet new needs? J R Soc Promot Health. 2004;124(3):115-8.
18. O'Herlihy A, Worrall A, Banerjee S, Jaffa T, Hill P, Mears A. National In-patient Child and Adolescent Psychiatry Study (NICAPS) [cited 2014 Dec 1]. College Research Unit, Royal College of Psychiatrists. Report submitted to the Department of Health, 2001. Available from: https://www.rcpsych.ac.uk/PDF/NICAPS%20report%20full.pdf.
19. Kurtz Z. The Evidence Base to Guide Developments of Tier 4 CAMHS. Department of Health; 2009.
20. Royal College of Psychiatrists. Acute In-patient Psychiatric Care for Young People with Severe Mental Health Illness: Recommendations for Commissioners, Child and Adolescent Psychiatrists and General Psychiatrists (Council Report CR106). London: Royal College of Psychiatrists; 2002.
21. Royal College of Psychiatrists. Building and sustaining specialist CAMHS to improve outcomes for children and young people; Update of guidance on workforce, capacity and functions of CAMHS in the UK (Council Report CR182). London: Royal College of Psychiatrists; 2013.
22. Kelvin RG. Capacity of Tier 2/3 CAMHS and Service Specification: A Model to Enable Evidence Based Service Development. Child and Adolescent Mental Health. 2005;10:63-73.
23. NHS England [homepage on the Internet]. Wakefield: NHS England [cited 2014 Dec 1]. Children and Young People's Improving Access to Psychological Therapies Programme: Available from: https://www.england.nhs.uk/mental-health/cyp/iapt/.
24. Clinical Outcomes Research Consortium (CORC) [homepage on the Internet]. London: Clinical Outcomes Research Consortium [cited 2014 Dec 1]. Available from: http://www.corc.uk.net/.
25. Department of Health. Improving Children and Young People's Health Outcomes: A System Wide Response [cited 2014 Dec 1]. Department of Health; 2013. Available from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/214928/9328-TSO-2900598-DH-SystemWideResponse.pdf.
26. King's Health Partners [homepage on the Internet]. London: King's Health Partners [cited 2014 Dec 1]. Available from: http://www.kingshealthpartners.org/.

27. Goodman R, Ford T, Richards H, Gatward R, Meltzer H. The Development and Well-Being Assessment: description and initial validation of an integrated assessment of child and adolescent psychopathology. J Child Psychol Psychiatry. 2000;41(5):645-55.
28. Belfer ML, Saxena S. WHO Child Atlas project. Lancet. 2006;367(9510):551-2.

KLINIČKA AKADEMSKA GRUPA ODJELA MENTALNOG ZDRAVLJA KOD DJECE I ADOLESCENATA PRI BOLNICI MAUDSLEY U LONDONU

Apstrakt

Cilj: Ovaj članak zasnovan je na predavanju održanom na naučnom skupu Akademije nauka i umjetnosti Bosne i Hercegovine, Odsjeka medicinskih nauka i UNICEF-a na temu „Dječija i adolescentna psihijatrija i psihologija u Bosni i Hercegovini – trenutni status i perspektive“ održanoj u Sarajevu od 5. do 7. aprila 2014. godine. **Materijali i metode:** Fokus je na potrebi da se da prioritetni značaj pružanju usluga mentalnog zdravlja za djecu i mlade. **Rezultati:** Kratki historijat i opis razvoja Odjela mentalnog zdravlja za djecu i adolescente u Velikoj Britaniji, a posebno u Engleskoj. Naglašeni su Nacionalna politika i kliničke smjernice. Kao primjer dobre prakse opisan je model Odjela za mentalno zdravlje djece i adolescenta (CAMHS) pri *South London and Maudsley NHS Foundation Trust*-u. **Zaključci:** Intervencije zasnovane na dokazima i dokazani modeli usluga trebaju se koristiti kao osnova pri izradi svih planova. Kolaborativno donošenje odluka u kliničkoj praksi, naglasak na kvalitetnim standardima i ishodima su od suštinske važnosti pri izradi novih usluga. Stavovi djece, mladih i njihovih porodica su presudni za uspostavljanje novih usluga. Prelazak na usluge mentalnog zdravlja za odrasle zahtijevat će jasne puteve i protokole.

Ključne riječi: usluge mentalnog zdravlja, djeca, adolescenti.

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Review article

MENTAL HEALTH CARE IN SERBIA – CHILD AND ADOLESCENT MENTAL HEALTH (CAMH)

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Abstract

Child and adolescent psychiatry (developmental psychiatry) is a relatively young branch of psychiatry and a very young discipline in Serbia. With the advancement of clinical knowledge, research, education and professional activities, new challenges are constantly arising in the field. It had been developing in Serbia for the past fifty years and now represents a separate professional discipline which encompasses specific diagnostic procedures, treatment, prevention, rehabilitation and research of disorders of emotional, social and cognitive development of children and adolescents. In this article we discuss historical perspectives of child psychiatry in Serbia, its current states, challenges and we outline further possibilities of development.

Key words: child and adolescent psychiatry, public health, Serbia.

Introduction

Child and adolescent psychiatry (developmental psychiatry) is a relatively young and new discipline. With the advancement of clinical knowledge, research, education and professional activities, this field is continually being enriched and is a challenge for mental health professionals. It had been developing in Serbia for the past fifty years and now represents a separate professional discipline which encompasses specific diagnostic procedures, treatment, prevention, rehabilitation and research of disorders of emotional, social and cognitive development of children and adolescents.

Historical background

Just like it is not possible to understand the current level and perspectives for future development of children without knowing the preceding developmental history, it is

also not possible to encompass the challenges faced by child and adolescent psychiatry in Serbia today or its developmental perspectives without looking at the history of its development in our region.

First mental health facilities for children and adolescents in Serbia were situated inside institutions for adult neuropsychiatry, or more rarely as parts of pediatric, psychological or special education services. The first department for child neuropsychiatry was founded in Belgrade in 1949 (1, 2). Along with the opening of services such as outpatient and inpatient units for child and adolescent psychiatry, education of local professionals was taking place abroad (primarily in Great Britain and France). A significant contribution to the psychosocial approach to child and adolescent mental health care was introduced at the Institute of Mental Health in Belgrade in 1963, leaning on the model of mental health care at the 13th arrondissement (municipality) in Paris. Following that model, a department for comprehensive mental health care of children and adolescents on the territory of the Old City municipality was founded (central quarter of the city, on the territory where the Institute of Mental Health is situated) (3).

During the last decade of the twentieth century, a subspecialty in child neuropsychiatry was introduced. Department for Psychiatry at the School of Medicine, University of Belgrade, introduced a separate residency in child and adolescent psychiatry in 1994. Since then, twenty five child psychiatry specialists were educated in Serbia, and about ten to fifteen are in training (subspecialty in child neuropsychiatry does not exist anymore).

In the summer of 2004, DEAPS (Association for Child and Adolescent Psychiatry and Allied Professions of Serbia and Montenegro) was formed in Belgrade and it was soon recognized and accepted by the international organizations such as IACAPAP (International Association for Child and Adolescent Psychiatry and Allied Professions), and ESCAP (European Society for Child and Adolescent Psychiatry). Most experts in the field of child and adolescent psychiatry in Serbia are members of DEAPS. Associations communicate with other associations that are focused on children health and wellbeing as well as with NGO, international organization, other sectors. Until today, four international congresses were organized and presenters were professionals from the region but there is an increasing number of international participants as well.

Demographic data on children and adolescents

Population of Serbia according to the last census taken in 2011 was 7.186.862 (by age structure, number of children and young people of the age of 0 to 4 is 328.225, ages 5-9 is 350.154, for ages 10-14, 364 869, 15-19 401 994 and 20-24, 439.741. The total number of children and young people from 0-14 year is 1.025.278, or 14.27% of the entire population. In the period between the two censuses (2002-2011), there was a decline in the total population of 4.15%, which was mainly the result of negative

natural growth and departure of our citizens abroad. The average age of the total population has increased by two years (4).

Main causes of psychiatric morbidity

Population of Serbia was exposed to many severe stressors during the last twenty years and as a result the incidence of mental health problems in its population is now higher than expected so that mental disorders are the second largest public health problem, after cardiovascular diseases. Being per se vulnerable groups, children and adolescents are amongst those at the highest risk for developing mental health problems. The prevalence of mental disorders has increased by 13.5% since 1999, with unipolar depression becoming one of the leading causes of the total burden of diseases (5). Furthermore, the incidence of stress related disorders, psychosomatic illnesses, substance abuse and suicide is high, as well as delinquency and violence among young people (6).

In accordance with the Law on Health Protection of the Republic of Serbia from 2005 among population groups "that are exposed to increased risk of disease" following groups were noted: "Children up to 15 years of age, school children and students by the end of regular education, but not later than 26 years of age." Among children and adolescents (aged 7 to 19), it was found that 22% of them had some emotional problems, as well as that the incidence of these problems increased with age, with a peak in the subgroup of 15-19 years old (7, 8). Studies have shown that the total number of persons with substance abuse in Serbia ranges between 60.000 and 80.000 (over 60% of these are young people).

According to the latest data the total number of citizens in Serbia is 7.120.666, 30% of which is considered the youth population (younger than 24) - in total 2.184.850 persons (Statistical Office of the Republic of Serbia) and the alarming data is that the number of those who drink heavily increases almost every year, especially among the young (3, 4). Deaths caused by the consequences of abuse were predominantly registered in the ages between 20 and 24 years (7, 9).

The organization and provision of child and adolescent mental health services; settings, organizations, providers and functions of mental health care

The mental health care sector is organized through a network of public health care facilities, which are most frequently available, and private facilities, which are steadily expanding. Mental health care is well integrated into the primary health care system, at least in larger cities with mental health care and developmental counseling teams and units within municipal health centers.

Most services dealing with mental health problems of children and adolescents are situated in big cities and regional centers. The significant problem at the state level is an

insufficient number of child psychiatrists, since the specialized training in child psychiatry was only introduced fourteen years ago. However, the total number of psychiatrists (neuropsychiatrists) in Serbia is sufficient, and is approximately 947 (336 in Belgrade alone). For 100.000 people there are 2.7 psychiatrists and 9.93 neuropsychiatrists (10).

Nowadays, there are 5 inpatient child and adolescent psychiatric institutions in Serbia, 30 developmental counseling services and 50 youth counseling services. Developmental and youth counseling services are within primary health care centers and constantly are going through reforms not well supported by authorities.

The total number of psychiatric beds for children and young people are: for ages 3-18 years there are 52 beds, for ages between 15 and 24 - 24 beds. In total, 1 bed for every 28 748 children and young people. There is only one daily stay hospital for children with capacity for 15 patients at the time, within Institute of Mental Health, Belgrade and three day hospitals for adolescents with room for 50 patients (40 in Belgrade, and 10 in Novi Sad). The total number of psychologists, social workers, therapists, specialist teachers, speech therapists and nurses cannot be precisely determined because of incomplete data.

Human resources in CAMH, education

Medical students have their first contact with CAP during regular curriculum in the fourth year of medical school. Some of them have the opportunity to have extra courses on special CAP topics within regular psychiatry classes such as autism or early psychoses or child abuse and neglect prevention through elective courses. These are elective courses and every year we have more and more participants interested in it.

The total number of psychiatrists (adult psychiatrists and child psychiatrists) who work with children and young people in psychiatric institutions in Serbia is 38; 9 more child psychiatrists work within regional health centers, community health centers, or in private practice; in total - 47 doctors. A significant problem at the state level is an insufficient number of child psychiatrists, since specialized training in child psychiatry was introduced only fourteen years ago. The largest proportion of them is working in psychiatric institutions in main cities, and only few of them are working within regional health care centers, municipalities health care centers or in private practice. Approximately, per 47.497 children and adolescents is one child and adolescent mental health professional with medical background, which almost third as in other European countries.

During the last decade of the twentieth century, a subspecialty in child neuropsychiatry was introduced. Department for Psychiatry at the School of Medicine, University of Belgrade, introduced a separate residency in child and adolescent psychiatry in 1994. Since then, about twenty-one child psychiatry specialists were educated in Serbia, and about ten to fifteen more are in training (subspecialty in child neuropsychiatry does not exist anymore). Apart from Belgrade, Nis and Novi Sad, there are specialist in child psychiatry in Sremska Mitrovica, Sabac, Kraljevo, Bor,

Čačak, Jagodina, Ćuprija and Vršac. Most of child and adolescent psychiatrists have completed some psychotherapeutic training and psychotherapy is applied both in outpatient and inpatient departments.

Serbia is not the only one facing problems; many Balkan countries also have an insufficient number of professionals engaged in child and adolescent mental health care protection and promotion. The principle of territorial mental health care is also not very well promoted, and the cooperation between institutions is not always well developed as it should be. Another possible danger of the chronic lack of specialized professionals is the work overload of working specialists that can lead to emotional exhaustion and burnout, with consequently lowered work efficiency. Burnout syndrome is not uncommon among child psychiatrists even in countries with better developed mental healthcare systems. In countries where child healthcare protection is insufficiently developed, burnout should be taken in consideration as a serious problem that can reduce the overall quality of care (11).

Referral procedures for mental health care

First professional help for children with mental health problems is given at preschool and school facilities and primary health care centers (pediatric services within health centers). From there, after professional assessment, most of the children with evident developmental problems (as well as children with high-risk of developing problems) are referred to developmental counseling services or youth counseling services, which are parts of pediatric services in primary health care centers and are functioning as teams consisting of a pediatrician, psychologist, social worker, special pedagogue and a nurse.

Most interventions are completed within developmental counseling services (each covering about 8.000 children, from 0 to 10 years of age) or youth counseling services. If problems are beyond their liability, children and adolescents can be referred to local social services, specialized clinics, and departments for mental health care of children and adolescents with developmental problems within large hospitals (secondary healthcare). When the problems are beyond the competence of secondary healthcare services, children are directed towards tertiary healthcare such as specialized departments for child and adolescent mental health care at university clinics (2).

Key points of the mental health reform aim to focus on improved cooperation and collaboration between primary, secondary and tertiary healthcare levels, definition of catchment areas and responsibilities, continuing education of general practitioners in mental health issues, and better cooperation between psychiatric and social welfare institutions.

Current challenges of child and adolescent psychiatry in Serbia

At its current stage of development child and adolescent psychiatry faces numerous challenges, some of which we will discuss here as they are considered significant

and most urgent to solve. Some of these issues are: finding the best way to promote and protect the mental health of children and adolescents in the reformed healthcare system, finding a way to align the Serbian specialized training in child and adolescent psychiatry with international standards, and finally, how to solve certain ethical dilemmas faced daily by mental health professionals in Serbia.

Protection of child and adolescent mental health in the reformed healthcare system

With the reform of the healthcare system which has been ongoing in the past decade there was a certain strengthening of the capacity of the primary healthcare in the prevention of mental health problems of youth, especially through Youth Counseling Services, but at the same time there was reduction of the number and the capacities of remaining child and adolescent psychiatric facilities.

The Law on Health Care (2010) predicts that mental health protection is performed on the primary, secondary, and tertiary levels, but in reality the situation is vastly different. Mental Health services within primary healthcare institutions, which used to be responsible for the majority of outpatient mental healthcare, have been terminated. In reality, most of the diagnosing and treatment of children and adolescents with mental health problems is being conducted on the tertiary level, in inpatient and consultative outpatient practices of clinics, institutes and specialized hospitals in Belgrade, Novi Sad and Niš (2).

The Strategy for the Development and Health of Youth in Serbia has paved the way for founding of counseling practices in primary healthcare institutions. Counseling practices are easily available, non-stigmatizing services available for promoting the mental health of young people and strategies and services offered by them have shown to be very effective. At the moment, there are 56 counseling practices of this kind in Serbia whose experts have been educated in the area of developmental and psychological problems and mental health problems of adolescents, on psychoactive substance abuse problems and drug dependency, abuse, neglect and other common problems.

An encouraging fact is that the Law on National Healthcare for Women, Children and Adolescents proclaimed by the government of the Republic of Serbia in 2009 defines as one of its general goals *improvement and maintenance of mental health of children and youth as well as prevention of mental health problems.* The law introduced mandatory screening for psychomotor and psychosocial development of children including hearing and eye sight monitoring, within preventative pediatric consults, and also early interventions for children that face psychomotor or psychosocial developmental challenges. The law and an additional professional-methodological manual regulates the organization, work approach, and goals of developmental counseling services which existed previously but whose goals were vaguely defined. At the same time, the question arose as to how to best educate the multidisciplinary

teams in these services, how to create clear boundaries between different professional roles, and how to cooperate with specialized psychiatric services for children and adolescents.

One of the priority goals of the law is to secure the rights of children with developmental problems, most of all the right to get quality healthcare protection and to create possibilities for their equal participation in the society. It has been determined that developmental counseling services have a key role in achieving this goal. However, due to longtime meandering in execution and vague interpretations of the status of pediatric specialists in developmental counseling services in relation to the status of the "chosen doctor," the number of developmental counseling services has been reduced instead of increased in comparison to their number during the '90s (in that decade there was about 30 of them in Serbia). A major obstacle to the more efficient care for children with developmental problems was *The Rule Book for the Activity of the Board for Additional Care Assessment for Educational, Health, and Social Support for Children and Students* (2010). Instead of taking up a holistic approach to the needs of children with developmental difficulties, this rule book focused only on educational needs and an opportunity was missed to focus also on other issues, for example, it could have been also used to help identify developmental problems as early as possible and also help provide an integrated response for the needs of children. It is expected to rewrite and correct these faults of the document.

Professional – methodological instruction also provides details of the organization and mode of operation of the counseling services for youth through healthy lifestyle programs, reproductive health programs and prevention of dependency problems (alcoholism, drug addiction, smoking), as well as non-violent communication programs.

There is a consensus that strengthening the primary healthcare in prevention of mental health disorders and early interventions has justification and advantages, and also is in accordance with European public health trends, and we are advocating this approach without hesitation. However, we feel that the development of primary healthcare should not be at the expense of secondary and tertiary level development, as these services are also needed for adequate protection of mental health of children and adolescents.

Aligning the training of child and adolescent psychiatrists in Serbia with international standards

Specialization in child and adolescent psychiatry lasts 4 years and includes theoretical and practical skills in following areas: child psychiatry (12 months), adolescent psychiatry (12 months), adult psychiatry (2 months), child neurology two-semesters classes (8 months), pediatrics (2 months), otorhinolaryngology (15 days) and ophthalmology (15 days). Curriculum is partially aligned with European standards assigned by the Section for Child and Adolescent Psychiatry of the European

Association of Medical Specialists (UEMS, CAP Section) except in the field of psychotherapy training, a skill set which is supposed to be gained during the specialization, but are quite poorly provided in our training programs and they are left up to the will of specializing doctors to decide on one of the internationally recognized therapeutic modalities and train with a licensed association in Serbia (most commonly psychoanalytic, family, or transactional analysis). It is clearly not possible to conduct these kinds of trainings within official specialization, mainly because these take a long time with large number of hours necessary to complete them, and also because Medical Schools where specializations in Serbia take place do not have internationally recognized licenses to conduct these trainings. We feel that it is necessary to find solutions to bridge this problem in order to provide child and adolescent psychiatrists with necessary psychotherapeutic skills.

The question of how to organize continued medical education in child and adolescent psychiatry also remains open. Society for Child and Adolescent Psychiatry an Allied Professions (DEAPS) is trying to fill the gap by organizing accredited symposia and seminars focused around different subjects in the field of child psychiatry, as much as its current financial means allow. Regardless of the efforts of DEAPS, to resolve this issue other than certain financial means, a systemic approach is needed.

With the new roles of primary health care in the process of reform and improvement of the mental health care system for children and adolescents, the question of education of pediatric specialists remains open and important, especially education of multidisciplinary teams in these services, as well as clear definition of boundaries (limitations and expectations) from each role in the team, as well as defining constructive ways of communication with specialized child and adolescent health care facilities. The fact is that knowledge and skills in this area of mental health care provided to specializing pediatricians is rather poor. In previous periods, all members of multidisciplinary teams in developmental counseling services (pediatrician, psychologist, speech therapist, social worker, pediatric nurse) have been obligated to complete a one year of specialized education – a seminar titled *Mental hygiene of the developmental* period organized by the Institute of Mental Health continuously since 1978. There is a question now if this form of education is well adjusted to the needs of the new roles taken over by primary healthcare, and a specifically important is the question of the education of pediatricians and their ability for early detection and treatment of psychomotor and psychosocial development of children, as well as their training to work in youth counseling services.

A big and significant step forward in the training of child and adolescent mental health professionals is the publication of the textbook Developmental Psychiatry (2012) whose chief editors were professor Svetomir Bojanin and associate professor Smiljka Popovic Deusic, and whose authors include 25 of Serbia's most eminent experts in different areas of child and adolescent psychiatry. The book displays most contemporary research in normal development, as well as all significant developmental and psychiatric disorders in childhood and adolescence, and diagnostic and

therapeutic steps based on current scientific knowledge. We consider this an important addition for the education of experts and a contribution to the Serbian scientific community in general.

Ethical challenges in child and adolescent mental health research

There is general consensus that a doctor should be guided by the following principles: 1) do good, which means that a doctor's professional engagement must be with his best intentions and interest to preserve the life and health of his patient without any discrimination; 2) do not harm – do nothing to cause harm to the health and wellbeing of the patient; 3) respect patient's autonomy, which requires doctors to guarantee doctor-patient confidentiality and to get consent for his actions based on information he provides to the patient; 4) aim to be just.

Even though these principles were taken into account during the writing of the draft of the Law on Protection of Patient Rights and Law on Health Care for Persons with Mental Health Problems, working with children and adolescents with mental health problems poses new challenges to professionals, challenges which are yet to be given useful answers.

An especially sensitive question is related to research on issues of violence and traumatic experience in children and adolescents. It is difficult to find balance between the need to conduct research on the influence of various traumatic events and the need to protect children from re-traumatization. In such circumstances it is necessary for researchers to show that their research is necessary, useful and scientifically justified, and that it will be conducted within the boundaries of ethical principles, that the risk is acceptable, that subjects are given ample opportunity to be informed of the risks and that written consent was given by the subjects to participate in the research. In any case, it is unethical to expose children and adolescents to high-risk situations such as interviews on horrifying experiences without support and outside of a safe environment. However, it is frequently rather difficult to perform risk assessments in advance, even more so when delicate subjects are approached. On the other hand, the possibility to testify, to speak about their experiences, to give information which might be useful to others can help and empower traumatized children and adolescents to overcome their problems more easily. It is important, in such situations, to make sure that all children and adolescents are well acquainted in advance with risks and nature of intervention, to understand the benefits they might stand from it and others as well, and to give their consent in the light of this knowledge.

One of the key questions is the ability of the child to give consent for a medical or psychosocial intervention or participation in research. Today it is considered that aside from the mandatory consent signed by parents or legal guardians, consent (assent) is needed also from the child himself or herself. It is considered that starting from seven or eight years of age children can already understand the risk and can give their consent to an intervention or participation in research, and children older

than 14 can give their full consent. Even children younger than seven should be given the opportunity to express their desires and feelings in relation to a suggested intervention or research participation.

Situation is also quite complex in psychotropic medication research due to exposure of sometimes very young children to these drugs. Because of all these sensitive issues we consider it a first grade priority to design an Ethical Code for providing services and research in the area of mental health of children and adolescents.

Steps in future development of child and adolescent psychiatry in Serbia

Basic directions for future development of child and adolescent psychiatry in Serbia is defined with the above mentioned Strategy for the development and health of youth in the Republic of Serbia (2006), and also in the Strategy for the development of mental health care in the Republic of Serbia (2007) and finally with the Law on national program for health care of women, children and youth (2009). Board for mental health of the Ministry of Health of the Republic of Serbia is considering the following suggestions as possible directions for further improvement of mental health of children and adolescents:

1) Increasing the preventative and therapeutic potential of primary healthcare through additional education in mental health problems of children and adolescents for existing personnel from primary institutions (general practitioners, pediatricians and associated professionals)
2) Establishing developmental counseling units or functional teams for early detection and early interventions for children with difficulties in psychomotor and psychosocial development;
3) Securing the possibility for adolescents to get psychological support and help in counseling units for youth in primary health care institutions, but also through opening counseling services in cities outside of health care institutions – in schools and student dorms.
4) Developing primary prevention strategy for mental health problems for children and adolescents and improvement of their mental health through the school system and all forms of mass communication;
5) Strengthening personnel, organization and improving the space in currently available specialized units for mental health problems of children and youth in secondary and tertiary institutions;
6) Opening small wards for adolescent psychiatry with two to four beds and adequate ambulance-polyclinic services in all medical centers and general hospitals where there are psychiatric units;
7) Strengthening personnel by opening new work places for child and adolescent psychiatrists and by stimulating those who chose to specialize in the field of child and adolescent psychiatry;

8) Establishing in cooperation with the Ministry of Labor and Social Politics adequate care for mental health of children and adolescents in institutions of social protection;
9) Supporting further education and specializing and providing help to non-governmental agencies for projects and programs that provide psychological help and support for children and adolescents with mental health problems.
10) Promoting collaboration with international organizations as well as participation in international research programs in order to improve research methodology and to exchange knowledge and professionals.

Considering the emphasis on collaboration with international organizations and participation in international research programs (see points 9 and 10 above) there is significant space for regional cooperation in improving mental health protection of children and adolescents. Given our similar linguistic and cultural backdrop, and also a similar organization of healthcare systems reflecting our Yugoslav ancestry, common steps can be taken to align and improve the structure of service provisions, as well as to improve knowledge and skill base of professionals working in the field, by organizing trainings and educational seminars, especially in the less developed areas such as providing psychotherapy for children and adolescents.

Already there are some possible existing platforms where such exchanges can take place, such as the DEAPS international conferences that unite regional mental health experts, and several journals with regular regional contributors such as Psihijatrija Danas, Psychiatria Danubina, etc.

Perhaps the most under-utilized and possibly very fruitful field of cooperation is research. The data on mental health needs of children and adolescents are still relatively scarce in Serbia as well as in other countries in the region. Multi-centric studies could provide a good and comprehensive statistical base for analyzing the factors that influence the incidence and prevalence of certain mental health problems of children and adolescents, due to linguistic, cultural and historical closeness of regional countries. Such cooperation could also help bridge financial problems that currently slow down research progress as it would open up space for accessing more financing options for research projects. A larger epidemiological space available would be especially useful for studying risk factors that may elude identification in smaller, less diverse national populations.

Considering that these complex projects require very good situation of the reality of clinical practice and constant managing of needs with the possibilities of practical realization, as well as monitoring the implemented measures and measuring results of these measures in terms of its success in improving mental health protection of children and adolescents we consider that it is not only justified, but also necessary to form a special commission within the Ministry of Health to deal with issues related to mental health of children and adolescents.

References

1. Tadić N. Psihijatrija detinjstva i mladosti. Beograd: Naučna knjiga; 2010.
2. Ispanovic Radojkovic V, Tadic N. Child and Adolescent Psychiatry. In: Remschmidt H, van Engeland H. Child and Adolescent Psychiatry in Europe: Historical Development, Current Situation, Future Perspectives. Berlin: Springer-Verlag; 1999. p. 285-97.
3. Popovic Deusic S, Mitkovic M, Pejovic Milovancevic M, Lecic Tosevski D, Draganic Gajic S, Aleksic Hil O. Poremećaji prilagođavanja bolnički lečenih adolescenata – studija nadgledanja. Srpski Arhiv za Celokupno Lekarstvo. 2012;140(5-6):344-9.
4. Statistical Report, 2012 [cited 2014 Oct 1]. Available from: http://popis2011.stat.rs/?page_id=2134.
5. Institute of Public Health. Health of Population of Serbia. Analytical Study 1997-2007. Belgrade: Institute of Public Health; 2009.
6. Lecic Tosevski D, Pejovic Milovancevic M, Popovic Deusic S. Reform of mental health care in Serbia: Ten steps plus one. World Psychiatry. 2007;6(2):115-7.
7. Institute of Public Health of Serbia. Health survey, healthcare needs and healthcare utilization in Republic of Serbia, Results of survey, I part - Household and family characteristics in Serbia. Health survey, healthcare needs and healthcare utilization among adult population in Republic of Serbia. Journal of the Institute of Public Health of Serbia. 2002;76(1-2):91.
8. Pejovic Milovancevic M, Lecic Tosevski D, Popovic Deusic S, Draganic Gajic S. Mental health care of children and adolescents in Serbia: Past steps and future directions. Epidemiologia e Psichiatria Sociale. 2009;18:262-5.
9. World Health Organization. Second report / WHO Expert Committee on Problems Related to Alcohol Consumption. Geneva: WHO; 2007.
10. Ministry of Health of the Republic of Serbia. Strategy for the Development of Mental Health Care [cited 2014 Oct 1]. Belgrade: Ministry of Health of the Republic of Serbia; 2007. Available from www.imh.org.rs.
11. Korkeila JA, Töyry S, Kumpulainen K, Toivola JM, Räsänen K, Kalimo R. Burnout and self-perceived health among Finnish psychiatrists and child psychiatrists: a national survey. Scandinavian journal of public health. 2003;31(2):85-91.
12. Lecic Tosevski D, Draganic Gajic S, Pejovic Milovancevic M. State of psychiatry in Serbia--problems, advances and perspectives. Int Rev Psychiatry. 2012;24(4):341-6.

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MENTALNA ZDRAVSTVENA ZAŠTITA U SRBIJI - MENTALNO ZDRAVLJE DJECE I ADOLESCENATA (CAMH)

Apstrakt

Dečija i adolescentna psihijatrija (razvojna psihijatrija) je relativno mlada grana psihijatrije i veoma mlada disciplina u Srbiji. Sa napretkom kliničkog znanja, istraživanja, edukacije i profesionalnih aktivnosti, novi izazovi se neprekidno ukazuju u ovoj sferi. Dečija i adolescentna psihijatrija se u Srbiji razvija u proteklih pedeset godina i sada predstavlja zasebnu profesionalnu disciplinu koja obuhvaća specifične dijagnostičke procedure, metode lečenja, prevenciju, rehabilitaciju i istraživanja poremećaja emocionalnog, socijalnog i kognitivnog razvoja dece i adolescenata. U ovom tekstu razmotrićemo srpsku dečju i adolescentnu psihijatriju iz istorijske perspektive, trenutno stanje razvoja, kao i izazove sa kojima se suočava, uz pregled daljih mogućnosti za razvoj.

Ključne reči: dečija i adolescentna psihijatrija, javno zdravstvo, Srbija.

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RANI SKRINING NA AUTIZAM U PRIMARNOJ PEDIJATRIJSKOJ SLUŽBI

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Apstrakt

Uvod: Poremećaj autističnog spektra (ASD), stanje klasifikovano u grupi neurorazvojnih poremećaja, karakteriše trajni deficit u komunikaciji i društvenim interakcijama i prisustvo restriktivnih, ponavljajućih obrazaca ponašanja, interesa ili aktivnosti. Rana dijagnoza i intervencija su od ključnog značaja za bolje ishode. Američka akademija za pedijatriju (AAP) podržala je projekat „*Autism Education and Early Screening*", sa ciljem podizanja svijesti javnosti o autizmu u Bosni i Hercegovini putem edukacije javnosti o ranim znacima i simptomima, određivanja učestalosti i povećanja ranog otkrivanja ASD-a uvođenjem ranog skrininga na autizam u dobi 18-30 mjeseci. **Metode i materijali:** Izrađene su obrazovne brošure o tipičnom razvoju djeteta i ranim znacima autizma i distribuirane roditeljima; u vrtićima, školama i zdravstvenim ustanovama postavljeni su posteri. Obimna medijska pokrivenost i brojne stručne prezentacije imali su za cilj da edukuju i javne i zdravstvene radnike. Modificirana ček-lista za autizam kod djece (*Modified Checklist for Autism in Toddlers* - M-CHAT) je prevedena u skladu sa pravilima i autorskim pravima. **Rezultati:** Od januara 2009. do 2012. godine, 611 djece (55% dječaka), u dobi od 21±3 mjeseca podvrgnuto je skriningu. Početni pregled je prošlo 298 dječaka (89%) i 256 djevojčica (92%). Četiri dječaka i jedna djevojčica odmah su upućeni na dalju evaluaciju i rano liječenje. **Zaključak:** Ovaj cjelokupni projekat je doprinio povećanju svijesti o autizmu povezivanjem zdravstvenih, socijalnih i obrazovnih resursa. Preliminarni rani pregledi potvrdili su da je procijenjena incidenca ASD-a u Bosni i Hercegovini slična kao incidenca u drugim državama. Znanje (opšte i stručne javnosti), kao i rani pregledi, neophodni su za pravovremenu dijagnozu i intervencije.

Ključne riječi: autizam, edukacija, rani pregledi.

Uvod

Poremećaj autističnog spektra (ASD) je neurorazvojni poremećaj hroničnog toka koji se manifestuje u ranom djetinjstvu poremećajem socijalne interakcije, komunikacije i repetitivnim ponašanjem. U petom izdanju Dijagnostičkog i statističkog priručnika za mentalne poremećaje (DSM-5), objedinjena su četiri različita poremećaja iz prethodne klasifikacije (autistični poremećaj, Aspergerov sindrom, dječiji dezintegrativni poremećaj i pervazivni razvojni poremećaj koji nije drugačije klasificiran) u poremećaj autističnog spektra (ASD). Osim gore navedene trijade oštećenja, uz izraženu hipersenzibilnost na promjene u okruženju i opsesivne interese za neke pojave ili predmete, za dijagnozu poremećaja veoma važan dijagnostički kriterijum je i prisustvo simptoma u ranom razvojnom uzrastu (1). S obzirom na to da ne postoje specifični laboratorijski testovi za ASD, dijagnoza se postavlja na osnovu kliničkog nalaza, te je potrebno poznavanje razvojnih miljokaza u svim oblastima razvoja u kojima se pojavljuju simptomi poremećaja.

Simptomi mogu biti različiti i mijenjati se sa uzrastom. Rani znaci i simptomi mogu biti uočeni već u uzrastu od 6 do 9 mjeseci, ali se tipično manifestuju od 12 do 24 mjeseca. Veoma važni simptomi su izostanak odazivanja na ime u uzrastu od 12 mjeseci, kao i korištenja kažiprsta u svrhu pokazivanja predmeta od interesa u uzrastu od 14 mjeseci, te igre pretvaranja u uzrastu od 18 mjeseci. Roditelji mogu uočiti i izostanak očnog kontakta, osamljivanje djeteta, usporen razvoj govora, eholaliju, opsesivne interese, neobične pokrete prstima, tapšanje ili druge stereotipne pokrete. Ovi simptomi su važni jer mogu pokrenuti roditelje da potraže stručnu pomoć. Razvoj govora može sasvim izostati, što se i dešava u 40% slučajeva djece sa ASD, dok, 25 do 30 % njih izgubi riječi koje je koristilo do uzrasta od 12 do 18 mjeseci (2). Razvoj govora i simbolične igre do pete godine života važan je pokazatelj povoljnog ishoda (1).

Educirani roditelji i oni koji već imaju dijete sa poremećajem autističnog spektra mogu znatno ranije prepoznati simptome. Studije su pokazale da je 30 do 50% roditelja djece sa poremećajem moglo primijetiti problem prije djetetovog prvog rođendana, a 80%–90% njih do uzrasta od 24 mjeseca (3). Etiologija poremećaja je nepoznata. Prevalencija je 4 puta veća u dječaka u odnosu na djevojčice. Najnovija istraživanja ukazuju na prenatalno porijeklo abnormalnosti mozga u djece sa ASD, poremećaj arhitekture kore mozga i prisustvo abnormalnih neurona u pojedinim slojevima kore. Ovo naučno otkriće potvrđuje činjenicu da rana intervencija može pomoći tako što razvija nove veze između zdravih neurona i premoštava devijantne neurone u zonama kore koje su važne za socijalizaciju i komunikaciju (4).

Iako se dijagnoza tipično može uspostaviti prije 36 mjeseci života, do konačne dijagnoze se najčešće dolazi u kasnom predškolskom ili ranom školskom uzrastu. Kašnjenje u dijagnozi znači da dijete sa ovim poremećajem možda neće dobiti ranu intervenciju koja mu je potrebna (3). Činjenice dokazuju da rana intervencija započeta prije treće godine života i usmjerena ka jezičkom i govornom razvoju može popraviti jezički kapacitet i kasniji socijalni razvoj (3). Postoje različiti upitnici

koji mogu pomoći pri dijagnozi poremećaja (5). Američka pedijatrijska akademija (AAP) preporučuje skrining na autizam za djecu uzrasta od 18 do 24 mjeseca, što je već postalo standard u skoro svim pedijatrijskim ambulantama u SAD (6). Poremećaji autističnog spektra (ASD) nisu rijetki. Najnoviji podaci koje je objavio Centar za kontrolu bolesti (CDC) iz Atlante u SAD, pokazuju da se procenat dijagnostikovanih slučajeva ASD povećao u periodu od 2000. do 2010. godine za 120%, te se održava na istom visokom nivou. Podaci iz 2012. godine ukazuju da jedno od 68 djece ili 1,5% djece u SAD imaju poremećaj autističnog spektra (3). U porodicama sa djecom koja imaju dijagnostikovan poremećaj postoji visok nivo roditeljskog stresa i često porodična disfunkcija. Pedijatri imaju važnu ulogu u ranom prepoznavanju poremećaja, jer su najčešće prvi kontaktirani od strane roditelja (7). Različiti upitnici olakšavaju strukturiranu komunikaciju između roditelja i pedijatara i omogućavaju sveokupno sagledavanje ranog rasta i razvoja za vrlo kratko vrijeme (8-10). U Dispanzeru za predškolsku djecu Doma zdravlja Tuzla, od januara 2009. do decembra 2011. godine implementiran je projekat Autizam – edukacija i rani skrining. Projekat je podržala Američka pedijatrijska akademija (AAP). Za potrebe projekta pripremljen je edukativni materijal za roditelje sa informacijama o tipičnom razvoju dojenčeta i malog djeteta, simptomima i ranim znacima autizma, kao i posteri, koji su postavljeni na vidnim mjestima u obrazovnim i zdravstvenim ustanovama. Educirani su roditelji i zdravstveni radnici o tipičnom i atipičnom razvoju, ranim simptomima i znacima autizma. Uz podizanje javne svijesti o autizmu urađen je i skrining na autizam, u uzrastu 18 do 30 mjeseci, u primarnoj pedijatrijskoj službi, sa ciljem da se rizična djeca otkriju u ranom uzrastu i upute na dalju evaluaciju i ranu intervenciju. Zahvaljujući neuroplasticitetu mozga i mogućnosti stvaranja novih sinapsi između neurona, rana intervencija može ublažiti simptome mnogih razvojnih poremećaja pa i poremećaja autističnog spektra.

Materijal i metode

Za prvi nivo skrininga, u primarnoj zdravstvenoj zaštiti, odabran je „Modifikovani upitnik za autizam male djece“ -The Modified Checklist for Autism in Toddlers (M-CHAT) (10). Upitnik nije dijagnostičko, već pomoćno sredstvo koje ukazuje na rizik za poremećaj autističnog spektra.

M-CHAT je upitnik za djecu uzrasta od 18-36 mjeseci. Dosadašnje studije koje su koristile M-CHAT pokazale su da je za popunjavanje upitnika od strane roditelja dovoljno 5 do 10 minuta, a za njegovu procjenu dodatno vrijeme od par minuta. Specifičnost upitnika u opštoj populaciji je dobra a senzitivnost iznosi 75-91% (10). Revidirani upitnik M-CHAT (M-CHAT-R) i popratni intervju (M-CHAT-R/F) imaju veću senzitivnost i manji broj lažno pozitivnih rezultata u odnosu na prethodnu verziju. Dizajniran je da ukaže na rizičnu djecu u uzrastu od 16 do 30 mjeseci i jedan je od upitnika koji Američka pedijatrijska akademija preporučuje za rani skrining (6).

Upitnik M-CHAT se zasniva na roditeljskom opažanju djetetovih vještina i ponašanja a ne na pedijatrijskoj opservaciji. Sastoji se od 23 pitanja koja se odnose na određeno ponašanje djeteta. Roditelj ili staratelj odgovara sa „da“ ukoliko je opisano ponašanje djeteta uočeno. Četiri pitanja u testu (11, 18, 20, 22) su tzv. „obrnuta“, jer je poželjan odgovor „ne“. To su pitanja koja se odnose na preosjetljivost djeteta na zvučne podražaje, prisustvo stereotipnih pokreta, zabrinutost roditelja za djetetovo stanje sluha i stalnu potrebu djeteta za nesvrsishodnim kretanjem. Kritična pitanja u testu, njih šest (2, 7, 9, 13, 14, 15), su veoma indikativna za djecu u riziku za poremećaj autističnog spektra. To su pitanja koja se odnose na djetetov interes za drugu djecu, korištenje kažiprsta u svrhu pokazivanje interesa, dijeljenje iskustava sa drugima, imitaciju, odazivanje na ime kao i obraćanje pažnje na okolinu. Ukoliko je dijete imalo dva negativna odgovora na kritična pitanja, ili tri i više negativnih odgovora na bilo koja pitanje, izuzev „obrnutih “, ponavljana je procjena uz korištenje M-CHAT popratnog intervjua (M-CHAT/F). M-CHAT i M-CHAT/F prevedeni su sa engleskog (uz saglasnost autora, provjeru ispravnosti prijevoda i poštovanje autorskih prava). Roditelji koji su, nakon detaljnog informisanja, dali svoj pristanak, anketirani su od treniranog osoblja u čekaonici Dispanzera za predškolsku djecu. Na ponovljeni test, odnosno pitanja u kojima je roditelj ukazao na ponašanje karakteristično za poremećaj autističnog spektra ili je pedijatar posumnjao da nije tačno odgovoreno, odgovarali su u ljekarskoj ordinaciji. Ukoliko je i nakon ponovnog testiranja s popratnim intervjuom rezultat i dalje bio dva negativna odgovora na kritična pitanja ili ukupno tri i više negativnih odgovora (osim „obrnutih “), a kliničkim pregledom pedijatra je procijenjeno da dijete ima razvojni poremećaj, ono je, u zavisnosti od kliničke slike, bilo upućeno na dalju evaluaciju neuropedijatru, kliničkom psihologu, logopedu, dječijem psihijatru i uključeno u ranu intervenciju.

Za statističku obradu podataka korišten je Epi Info verzija 6. Epi Info je višenamjenski kompjuterski program dizajniran za epidemiološka istraživanja i javno zdravstvo, praćenje određenih zdravstvenih kretanja, jednostavne statističke analize, unošenje, provjeru i analizu podataka, dizajniranje upitnika i pisanje izvještaja.

Rezultati

U periodu od januara 2009. do kraja 2011. god. urađen je skrining 611 djece (55% dječaka), uzrasta od 18 – 36 mjeseci, srednji uzrast je bio 21±3 mjeseca, mod 18 mjeseci. Inicijalni skrining je prošlo 554 djece (91%), od toga 298 dječaka (89%) i 256 djevojčica (92%), a ponovljeni 30 dječaka (8%) i 22 djevojčice (7%). Jedna djevojčica i četiri dječaka, koji su imali od 7 do 11 negativnih odgovora, kao i klinički prepoznate rane simptome i znake poremećaja autističnog spektra, upućeni su odmah na dalju evaluaciju i tretman. Godišnji rezultati M-CHAT skrininga prikazani su tabelarno (Tabele 1, 3, 5). Dječaci su imali više negativnih odgovora na kritična pitanja u odnosu na djevojčice (Tabele 2, 4, 6).

Tabela 1 Rezultati inicijalnog M-CHAT skrininga za 2009. godinu

Negativni ajtemi	0	1	2	3	4	5	7	11	Ukupno
Dječaci	34	26	16	7	4	3	1	1	92
Djevojčice	33	21	16	9	3	1	0	0	83
Ukupno	67	47	32	16	7	4	1	1	175

Tabela 2 Rezultati inicijalnog M-CHAT skrininga za 2009. godinu, samo kritični ajtemi

Negativni ajtemi	0	1	2	4	Ukupno
Dječaci	84	7	0	1	92
Djevojčice	76	6	1	0	83
Ukupno	160	13	1	1	175

Tabela 3 Rezultati inicijalnog M –CHAT skrininga za 2010. godinu

Negativni ajtemi	0	1	2	3	4	5	8	Ukupno
Dječaci	75	47	17	5	6	0	1	151
Djevojčice	85	28	15	7	0	2	0	137
Ukupno	160	75	32	12	6	2	1	288

Tabela 4 Rezultati inicijalnog M –CHAT skrininga za 2010. godinu, samo kritični ajtemi

Negativni kritični ajtemi	0	1	2	3	ukupno
Dječaci	131	18	0	2	151
Djevojčice	120	16	1	0	137
Ukupno	251	34	1	2	288

Tabela 5 Rezultati inicijalnog M-CHAT skrininga za 2011. godinu

Negativni ajtemi	0	1	2	3	5	6	7	ukupno
Dječaci	59	27	7	2	2	1	1	99
Djevojčice	48	13	4	0	0	0	0	65
Ukupno	107	40	11	2	2	1	1	164

Tabela 6 Rezultati inicijalnog M –CHAT skrininga za 2011. godinu, samo kritični ajtemi

Negativni kritični ajtemi	0	1	2	3	ukupno
Dječaci	94	1	1	3	99
Djevojčice	62	3	0	0	65
Ukupno	156	4	1	3	164

Diskusija

Poremećaj autističnog spektra je doživotan. Izostanak njegovog prepoznavanja, dijagnostikovanja i adekvatnog tretmana vodi neodgovarajućem ponašanju roditelja ili drugog odgajatelja prema djetetu i asocijalnom i agresivnom ponašanju djeteta. Odsustvo vidljivog fizičkog hendikepa podstiče visoka i neostvariva očekivanja roditelja u odnosu na dijete, što dalje doprinosi povišenom nivou roditeljskog stresa.

Koliki je značaj sistematskog skrininga pokazala je studija iz Atlante (SAD) urađena u periodu od marta 2005. do oktobra 2007. U studiji je korišten M-CHAT i M-CHAT/F popratni intervju. Testirano je 4797 djece tokom pedijatrijskog sistematskog pregleda u uzrastu od 15, 18 i 24 mjeseca života. Na osnovu rezultata testa, 466-oro djece je procjenjeno rizičnim za poremećaj autističnog spektra (ASD). Nakon ponovnog testiranja, uz korištenje M-CHAT/F, 61 dijete je i dalje pokazivalo rizik za poremećaje autističnog spektra. Ukupno je evaluirano 41 dijete, od toga je 21 dobilo dijagnozu poremećaj autističnog spektra. Samo je četvoro njih bilo prepoznato kao rizično na osnovu samo pedijatrijskog pregleda (8).

Do sada najveća studija koja je koristila M-CHAT za skrining na autizam u uzrastu od 18 do 24 mjeseca, obuhvatila je 18989 djece sa dva velika geografska područja u SAD. Sva djeca koja nisu prošla na inicijalnom skriningu, njih 1737, bila su ponovo testirana sa M-CHAT/F intervjuom. Nakon što je 79% njih prošlo ponovljeni test, 272 djeteta (21%) bila su upućena na dalju evaluaciju i tretman. Studija je empirijski podržala značaj skrininga na ASD u primarnoj pedijatrijskoj službi. Poremećaj iz autističnog spektra imalo je 54% djece koja nisu prošla inicijalni skrining i ponovljenu procjenu, a 98% njih je imalo klinički značajan razvojni poremećaj koji je zahtijevao neku od intervencija. Pokazalo se da je rezultat od 7 negativnih odgovora bio dovoljan razlog da se ta djeca odmah upute na dalju evaluaciju bez potrebe za ponovnim testiranjem (11).

Rana dijagnoza praćena ranom intervencijom pozitivno utiče na tok poremećaja autističnog spektra, čak i kada intervencija nije intenzivna. Koliki je značaj rane intervencije pokazala je studija urađena u Italiji koja je obuhvatila 21 rizično dijete uzrasta od 30 do 36 mjeseci. Djeca su bila uključena u ranu intervenciju koja se sastojala od 3 sata sedmičnog rada sa specijalno edukovanim terapeutima, u odnosu 1:1. Roditelji i vaspitači iz vrtića su podržavali ranu intervenciju stvarajući stimulišuće okruženje kod kuće, odnosno u vrtiću. Prosječno trajanje intervencije bilo je 15 mjeseci. Komunikativne i kognitivne vještine, kao i težina autističnih simptoma, bile su procjenjene standardiziranim mjerenjem, prije intervencije, kada su djeca imala prosječno 27 mjeseci i nakon završene intervencije, kada su imala prosječno 42 mjeseca. Nađeno je statistički značajno poboljšanje u domenu razvoja jezika i kognicije. Kada su u pitanju simptomi autizma, poboljšanje je bilo utoliko veće ukoliko je uzrast bio mlađi u vrijeme postavljanja dijagnoze (12).

Većina razvojnih problema je jasno uočljiva već u uzrastu od 18 mjeseci. Kanadska studija upoređivala je procenat razvojnih problema identifikovanih od

strane porodičnog doktora uz pomoć četiri standardizirana upitnika, među kojima je bio i M-CHAT i onih identifikovanih bez upotrebe upitnika. Odabrane su 54 porodice metodom slučajnog izbora. U 25 porodica procjena ranog razvoja vršila se "neformalno", a u 29 slučajeva upotrebom upitnika za čije popunjavanje nije trebalo više od 10 minuta. U prvoj grupi identifikovano je 4 % , a u drugoj 62 % djece sa mogućim razvojnim problemima (13).

Prema podacima iz literature, pedijatrijskom evaluacijom dijagnoza poremećaja autističnog spektra rijetko se postavlja prije treće godine života (10). Mala djeca zbog straha ili stidljivosti često ne pokazuju svoje tipično ponašanje u pedijatrijskoj ordinaciji. Razvojno zaostajanje je nekada teško primijetiti kratkotrajnom opservacijom u kliničkom okruženju, te je roditeljsko zapažanje veoma važno. Nedavna studija iz Atlante, SAD, pokazala je da je srednji uzrast prve evaluacije za 115 osmogodišnjaka bio 48 mjeseci, a za prvu dijagnozu 68 mjeseci (14).

Dug vremenski raspon od roditeljskog zapažanja neobičnog ponašanja djeteta, do evaluacije i konačne dijagnoze doprinosi povećanom roditeljskom stresu i gubitku dragocjenog vremena za započinjanje ranog tretmana (10). U našem uzorku, četiri dječaka imaju konačnu dijagnozu poremećaj autističnog spektra, koja je doprinijela da njihov tretman postane intenzivan i svakodnevan. Na inicijalnom testiranju oni su imali od 7 do 11 negativnih odgovora. Od momenta testiranja do konačne dijagnoze prošlo je 24 mjeseca. Roditelji teško prihvataju činjenicu da psihosocijalni razvoj njihovog djeteta ne slijedi očekivane miljokaze. Njihova prva reakcija je negiranje i izbjegavanje, uz čekanje da se problemi u socijalnoj komunikaciji spontano prevaziđu. Za većinu roditelja kašnjenje u razvoju govora i regresija su najčešći razlozi zabrinutosti zbog kojih se obraćaju pedijatru. U našem uzorku pet dječaka uzrasta od 29 do 36 mjeseci je imalo usporen jezički razvoj. Dobar rezultat na testu imala su dva dječaka iz ove grupe, a više od 5 negativnih odgovora tri dječaka.

Zaključak

Autizam je globalni problem, prisutan i u Bosni i Hercegovini. Prepoznavanje ranih simptoma i znakova autizma je važno, s obzirom na to da rani tretman, zahvaljujući neuralnom plasticitetu, poboljšava socijalnu komunikaciju, olakšava interakciju roditelja i djece i može pomoći da se neki pridruženi simptomi stave pod kontrolu. Iako u naučnim krugovima još uvijek nema jedinstvenog stava o opravdanosti ranog skrininga, saglasnost postoji da su potrebna nova istraživanja u toj oblasti. Naše iskustvo je da rani skrining predstavlja jednostavan i brz način da se djeca u riziku za poremećaj prepoznaju i upute na dalju evaluaciju i ranu intervenciju. Skrining bi trebalo raditi u uzrastu od 16-30 mjeseci sa revidiranim upitnikom (M-CHAT-R) i popratnim intervjuom (M-CHAT-R/F) s obzirom na to da imaju veću senzitivnost i manji broj lažno pozitivnih rezultata u odnosu na prethodnu verziju M-CHAT i M-CHAT/F, a dostupni su i na bosanskom jeziku. Rana intervencija doprinosi povoljnijem ishodu poremećaja dok čekanje da se problem spontano riješi odlaže početak intervencije i

nepovoljno utiče na krajnji ishod poremećaja. Ostaje još uvijek neriješen problem u Bosni i Hercegovini nedostatka javnih ustanova za ranu intervenciju.

Edukacija, podrška porodici i rana intervencija su neophodni kao i multidisciplinarni pristup i saradnja zdravstvenog, obrazovnog i socijalnog segmenta društva.

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Reference

1. American Psychiatric Association [homepage on the internet]. Arlington: The Association. c2014. APA DSM-5 Development. Available from: http://www.dsm5.org/Documents/Autism%20Spectrum%20Disorder%20Fact%20Sheet.pdf.
2. Johnson CP. Early Clinical Characteristics of Children with Autism. In: Gupta VB, editor. Autistic Spectrum Disorders in Children. New York: Marcel Dekker, Inc.; 2004. p. 85-123.
3. Centers for Disease Control and Prevention [homepage on the internet]. Atlanta. ASD homepage [update 2015 February 26]. Available from: http://www.cdc.gov/ncbddd/autism/signs.html.
4. Stoner R, Chow ML, Boyle MP, Sunkin SM, Mouton PR, Roy S, et al. Patches of disorganization in the neocortex of children with autism. N Engl J Med. 2014;370(13):1209-19.
5. Shah PE, Dalton R, Boris NW. Autistic Disorder. In: Kliegman RM, Behrman RE, Jenson HB, Stanton BF, editors. Nelson Textbook of Pediatrics. 18th ed. Philadelphia: Saunders; 2007. p. 133-7.
6. Plauché Johnson C, Myers SM. Identification and Evaluation of Children With Autism Spectrum Disorders. Pediatrics. 2007;120(5):1183. Available from: http://pediatrics.aappublications.org/content/120/5/1183
7. Robins D. Screening for autism spectrum disorders. Autism. 2008;12:537.
8. Skellern C, Rogers Y, O'Calaghan M. A parent-completed developmental questionnaire: follow up of ex-premature infants. Journal of Paediatrics and Child Health. 2001;37(2):125-9.
9. Glascoe FP. Parents' evaluation of developmental status: how well do parents' concerns identify children with behavioral and emotional problems? Clinical Pediatrics 2003;42(2):133-8.
10. Robins DL, Fein D, Barton ML, Green JA. The Modified Checklist for Autism in Toddlers: An Initial Study Investigating the Early Detection of Autism and Pervasive Developmental Disorders. J Autism Dev Disord. 2001;31(2):131-44.
11. Chlebowski C, Robins DL, Barton ML, Fein D. Large-Scale Use of the Modified Checklist for Autism in Low Risk Toddlers. Pediatrics 2013;131:1121-7.

12. Devescovi R, Monasta L, Mancini A, Bin M, Vellante V, Carrozzi M, et al. Early diagnosis and Early Start Denver Model intervention in autism spectrum disorders delivered in an Italian Public Health System service. Neuropsychiatr Dis Treat. 2016;12:1379-84.
13. Thomas RE, Spragins W, Mazloum G, Cronkhite M, Maru G. Rates of detection of developmental problems at the 18-month well-baby visit by family physicians' using four evidence-based screening tools compared to usual care: a randomized controlled trial. Child Care Health Dev. 2016;42(3):382-93.
14. Wiggins LD, Baio J, Rice C. Examination of the time between first evaluation and first autism spectrum diagnosis in a population-based sample. J Dev Behav Pediatr. 2006;27:79-87.

EARLY SCREENING FOR AUTISM IN PRIMARY CARE SETTING

Abstract

Introduction: Autism spectrum disorder (ASD), a condition classified in the group of neurodevelopmental disorders, is characterized by persistent deficit in communication and social interactions, and presence of restricted, repetitive patterns of behavior, interests, or activities. Early diagnosis and interventions are imperative for better outcomes. The American Academy of Pediatrics (AAP) supported the project "Autism Education and Early screening", with the goal to raise public awareness of autism in Bosnia and Herzegovina by educating the public about early signs and symptoms, determine the incidence and increase early detection of ASD by introduction of autism screening at the age 18-30 month. **Methods and material:** Educational brochures about typical child development and early signs of autism have been developed and distributed to parents; posters have been displayed at kindergartens, schools and health institutions. Extensive media coverage and numerous professional presentations have been aimed at educating both public and health care workers. The Modified Checklist for Autism in Toddlers (M-CHAT) has been cross translated according to the rules and copy- rights. **Results:** From January 2009 trough 2012, 611 children (55% of boys), aged 21±3 months, were subject to the screening. The initial screening was passed by 298 boys (89%) and 256 girls (92%). Four boys and one girl were immediately referred to a further evaluation and early treatment. **Conclusion:** This overall project contributed to raising autism awearness by linking health, social and educational resources. The preliminary early screening confirmed that estimated incidence of ASD in Bosnia and Herzegovina is similar as reported elswere. Knowledge (public and professional), as well as the early screening, are required for timely diagnosis and interventions.

Key words: autism, education, early screening.

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Original research paper

NEGATIVE EMOTIONAL STATES AND QUALITY OF LIFE IN PARENTS OF CHILDREN WITH AUTSTIC SPECTRUM DISORDER

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Abstract

Prevalence of autistic spectrum disorders is constantly increasing. Considering the lack of institutionalized support for guardians, it has been noticed that parents of children with ASD more often experience negative emotional states, such as depression, anxiety and stress, and perceive their quality of life to be lower than the parents of typically developing children. The aim of our research was to compare the level of depression, anxiety, stress and quality of life in parents of children with ASD and parents of children without developmental difficulties.
The research was quantitative, a socio-demographic questionnaire was used, as well as DASS-21 and WHOQOL scales. There were 78 participants, of which 39 parents of children with ASD (members of „Djeca svjetlosti“ Banja Luka and EDUS Sarajevo), and 39 parents of children without developmental difficulties. F-test was used for comparison of results in the depression, anxiety, stress and quality of life scales between the two groups.
It was found that there were statistically significant differences in the level of depression ($F=3.72$, $p<.01$), anxiety ($F=4.51$, $p<.01$) and stress ($F=3.47$, $p<.01$), in a way that negative emotion levels were higher in parents of children with autistic spectrum disorder. As far as the perceived quality of life is concerned, the only statistically significant difference was found in the domain of psychological health ($F=-3.22$, $p<.01$), in the way that the parents of typically developing children had higher level of perceived satisfaction in this domain.

Recommendations made on the basis of these results are that mental health professionals should be educated for work with emotional problems affecting parents of children with autistic spectrum disorders, in order to make treatment be more comprehensive and efficient.

Key words: autistic spectrum disorder, parents, stress, anxiety, depression, quality of life.

Introduction

According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), autistic spectrum disorder is a superior term that includes autism, Asperger's syndrome and unspecified autistic spectrum disorder. Autistic spectrum disorders are complex disorders typically emerging in the first three years of life and encompass different aspects of psychological functioning. A characteristic of this type of disorder is that it permeates several important areas of development – reciprocal social reactions and communication, and also includes stereotypical behavioral patterns. Social relations are disturbed in terms of the inability to use non-verbal behavior in order to develop social interactions and peer relationships appropriate to the level of development. The absence of spontaneous attempts to share pleasure and interests with others, as well as lack of social and emotional reciprocity are noted. Qualitative impairment in communication is reflected in the delay or absence of speech development, difficulties in conversation reciprocity, repetitive speech, inability to imitate the game, and the lack of a symbolic game in general. In the sphere of behavior, the problem is manifested in a preoccupation with one or more stereotyped and restricted patterns of behavior, stereotyped and repetitive motor mannerisms, and preoccupation with parts of objects (1).

Although parents are increasingly involved in the therapeutic work with children with autistic spectrum disorders, a majority of researches is still mostly focused only on the outcomes of working with children, while little is still known about the effect of the whole situation on the family.

Some studies show that taking care of a child with autistic spectrum disorder, considering the wide range of problems faced, often results in high levels of stress, depression and anxiety in parents (2-5).

It has been found that in addition to the fact that parents of children with autism spectrum disorder have more expressed symptoms of depression, anxiety and stress than parents of healthy children, mothers of autistic children have more expressed symptoms of stress and depression than fathers (2). Other studies (6) show that half of parents of children with ASD express anxiety, while two-thirds are clinically depressed. De Sousa (7) finds that most mothers of children with autism have moderate to severe depression, unlike mothers of children with mental retardation who have scores on the scale range from mild to moderate depression.

It was noticed that depression, stress and anger among mothers of autistic children were intensified if they were unemployed or worked fewer hours (8). It is possible that such a state is a consequence of a greater number of hours spent with

an extremely demanding child, little interaction with adults, and also the reduced income.

Apart from negative emotional states, which can occur in parents of children with ASD, one of the important factors that should be paid attention to is the perception of quality of life. The World Health Organization (WHO) defines quality of life as one's own perception of the position in a specific cultural, social and environmental context (9). In addition to objective factors, such as social, economic and political, quality of life is also influenced by subjective perception and assessment of physical, material, social and emotional well-being. A subjective perception of quality of life is influenced by a value system of an individual, which is one of the reasons why the level of self-assessment of quality of life is, on average, stable and positive, regardless of the external events. This is confirmed by various research. Therefore, an assumption is being developed about the existence of a mechanism thanks to which the perception of subjective quality of life is maintained at a certain level. Best known is the Cummins' theory of homeostasis of subjective quality of life (10). The theory assumes that there is a mechanism of homeostasis that acts as a control system in which a person perceives his or her own well-being within the range strictly specific to the individual, and maintains a subjective quality of life of the individual and the level of satisfaction within the positive values (10). The normative range of population in the world is between 60% and 80%, and even the lowest values are above 50% (11). Based on these results and in accordance with the theory of homeostasis, it can be assumed that the perception of quality of life is a stable construct, and that the conditions that abruptly reduce or increase the subjective perception of quality of life cannot disturb its level in the long term. The general decline in the level of perceived quality of life is possible in situations when adverse impacts are so powerful that exceed coping strategies of the individual, which leads to the breakdown of homeostasis. It is believed that this can be a result of severe chronic pain and care for a family member suffering from a serious incurable disease. It is believed that the parents of children with autistic spectrum disorders, due to the characteristics of the disorder itself, are exposed to particularly high level of stress, and it is assumed that their perception of the quality of life will be lower. A group of Swedish authors came to the conclusion that mothers of children with autism have a lower perception of quality of life in the domain of health (12), while the Croatian sample study showed that the quality of life of parents of autistic children is lower in all domains (13). In addition, because of the numerous treatments, parents of children with autism have more financial problems, which further contributes to the level of stress (14). However, attention must also be paid to the possibility that care for a disabled family member can lead to a greater cohesiveness of the family. Given the results stated, as well as the fact there have been no studies of this type in our geographical area, as the aim of our research we have decided to compare the severity of symptoms of depression, anxiety and stress, as well as the level of quality

of life in parents of children with autistic spectrum disorder and parents of children without developmental difficulties.

Based on previous research, assumed is the following:

– Negative emotional states such as depression, stress and anxiety are more expressed in parents of children with autism (2-5)
– Negative emotional states are more expressed in mothers than in fathers of children with autistic spectrum disorders (2);
– Parents of children with autism, compared to parents of typically developing children, have lower levels of perceived quality of life (12, 13).

Method

Sample

The sample of the study was a convenience sample of 78 participants. 39 participants were parents of children diagnosed with some type of autistic spectrum disorder, all members of the associations „Djeca svjetlosti“ in Banja Luka or EDUS in Sarajevo. Besides that, 39 other participants were parents of children without developmental disorders, so they consisted a healthy control group. This sample has been drawn from elementary school, and consisted of parents whose children were of the same age as children with ASD. The groups were relatively homogeneous in age (M=36.51 in group of parents of children with ASD, M=34.72 in control group). The structure of the sample by gender is presented in Table 1. Most of the sample were couples, but in several cases, father weren't available for examination. Only two women were single mothers, there were no men as single parents.

Table 1 Structure of the sample by gender and group

	Men	Women	Total
Parents of children with ASD	17	22	39
Parents of children without disorders	15	24	39
Total	32	46	78

Instruments

In order to collect data on participants, their dominant emotional states and perception of the quality of life, the following instruments were used:

- *Questionnaire on socio-demographic data* – created for the needs of this study; it consists of 17 items; first nine questions relating to parents (years of age, working, marital and housing status), while eight questions were related to the child (age, diagnosis, most prominent problems);

- *Questionnaire for the assessment of depression, anxiety and stress DASS-21* (15, 16) – a questionnaire that provides a quantitative measure of distress on three

axis of depression, anxiety and stress. It consists of 21 items that describe negative emotional symptoms. Participants state how often they felt these symptoms during the past week, expressing the degree of agreement on a four-degree Likert-type scale (from 0 – never, to 3 – almost always). Reliability of each subscale obtained on the original sample of the test authors was very high (Cronbach's alpha – depression 0.91; anxiety 0.84; stress 0.90). On a Serbian sample, internal consistency of the scale was high (Cronbach's α = .92) (16).

- *Quality of Life Questionnaire of the World Health Organization WHOQOL bref (9)* – consists of two items that measure the overall quality of life, and 24 items related to the assessment of quality of life in four domains (physical health, psychological health, social relations and environment). Level of agreement with each statement is determined by five-degree Likert-type scale. The scale has a high correlation with the WHOQOL-100 (r-.89), as well as high reliability and internal consistency obatained on original sample. The Croatian version of the questionnaire was used.

Design

The research is non-experimental, conducted by a survey. The research design is multivariate.

Variables

The research included three groups of variables:
– socio-demographic variables – in order to define the structure of the sample;
– variables related to negative emotional states (level and category of depression, anxiety and stress) - numeric variable operationalized through the results on the DASS-21 scale
– variables related to quality of life – numeric variable, operationalized through the results on the scale WHOQoL

Procedure

A sample of parents of children with autistic spectrum disorder was gathered in associations "Djeca svjetlosti" in Banja Luka and EDUS in Sarajevo. During their introduction in the work of support group, respondents were given questionnaires with the explanation how to complete them.

Parents of children without developmental disorders were interviewed in a primary school in Banja Luka, on arrival at a parent – teacher meeting.

Results

AdH1) It is assumed that parents of children with autism have more expressed negative emotional states such as depression, anxiety and stress.

The results show that there are statistically significant differences in the level of expression of negative emotional states between parents of children with autistic spectrum disorders and parents of children with typical development. Differences were evident in the area of all three measured emotional states – depression (F=3.72, p<.01), anxiety (F=4.51, p<.01) and stress (F=3:47, p<.01), wherein negative emotional states were higher among parents of children with autistic spectrum disorder. Results can be seen in Table 2 in the appendix.

AdH2) It is assumed that negative emotional states are more expressed in mothers than in fathers of children with Autism Spectrum Disorders (Merkaj, Kika, Simaku, 2013).

The results show that, although differences in experiencing negative emotional states between mothers and fathers of children with autism do exist, they are not statistically significant. The following scores were obtained for the depression scale (F=.693, p=.09), anxiety (F=.856, p=.23) and stress (F=.001, p=.25). Detailed results are shown in Table 3 in the appendix.

AdH3) It is assumed that parents of children with Autism Spectrum Disorder, compared to parents of children who are typically developing, have lower levels of perceived quality of life.

As for the perception of quality of life, statistically significant difference was found only in the domain of psychological health (F=-3.22, p<.01), in a way that the higher degree of satisfaction in this area experience parents of children who are typically developing. There were no statistically significant differences in other domains (Table 2 in the appendix).

Discussion

The aim of our research was to compare the prominence of negative emotional states (depression, anxiety, and stress) and perception of the quality of life in parents of children with autistic spectrum disorder and parents of typically developing children. In line with previous research on this topic, three hypotheses were defined.

The first assumption that negative emotional states are more expressed among parents of children with autistic spectrum disorder, compared to the general population, has been confirmed. It is evident that depression, anxiety and stress are more prominent in parents of children with autism. These results are consistent with those available in the literature (2, 3, 4, 5), and are expected due to the continuous stress to which parents are exposed, and which is related to characteristics of the disorder itself, frequent rejection in the social environment as well as the lack of institutionalized care for children and psychological support to parents.

The second hypothesis that negative emotional states are more expressed in mothers than in fathers of children with autistic spectrum disorders was not confirmed

in our study, which is not in line with the existing findings (2). Regardless of the fact that mothers are the ones who spend almost all the time with children, taking care of everything – from basic to the special needs of the child, as well as taking care of the household and other family members, differences in the prominence of negative emotional states, when compared to fathers, are not statistically significant. This result may be a consequence of fathers being often too preoccupied with acquiring financial conditions for the provision of additional treatments for children with autism, which contributes to the severity of their stress and consequences which this exposure brings. Additionally, families with the child who has a developmental disorder are often forced to move from their place of permanent residence into larger cities where expert services are more accessible, thereby creating an extra pressure on fathers, who are often the only employed in the family. Nevertheless, in table 3 we can see the trend that levels of negative emotions are substantially higher in mothers than fathers of children with ASD, although they are not statistically significant. This may be due to small sample size, and should be examined in further studies using larger sample.

The third hypothesis that parents of children with autism, compared to parents of typically developing children, have lower levels of perceived quality of life is only partially confirmed, and statistically significant difference was found in the domain of psychological health. Such a result was expected, given the increased scores on the symptomatic scales that indicate high presence of negative emotional states such as depression, anxiety and stress in the population of parents with autistic children.

Limitations of this research are, first and foremost, related to the number of respondents being restricted by their membership in associations for support to children with autism. In the future research, it would be desirable to include parents of children with autistic spectrum disorders who are not members of any of the existing associations. Besides that, it would be important to compare this group of parents with parents of children with other developmental disorders (mental retardation, ADHD, Down Sy. etc.).

Recommendations arising from the results of our research would be referred to the establishment of the support groups for parents of children with autism spectrum disorder, as well as to raising awareness of the need for the training of professional staff working with children with disabilities, in order to recognize and treat emotional problems of parents and guardians of these children.

Conclusions

Research has shown that there is a significant difference between the group of parents of children with autistic spectrum disorder and parents of children with typical development. In parents of children with autism spectrum disorder there are significantly higher levels of stress, depression and anxiety. Perception of the quality of life differs in the domain of psychological health, in a way that it is lower in parents of children with developmental difficulties.

Exactly for this reason, professionals from different professions (psychiatrists, psychologists, social workers, occupational therapists) who work in institutions that care for children with autistic spectrum disorders, should be trained to recognize and treat the negative emotional states of parents. Parents should be involved in individual and/or group counseling programs to learn how to cope with stress that is inevitably associated with caring for a child with autism spectrum disorder.

References

1. American Psychiatric Association. The diagnostic and statistical manual of mental disorders. DSM-IV-TR. 2000;70-5.
2. Merkaj V, Kika M, Simaku A. Symptoms of Stress, Depression and Anxiety between Parents of Autistic Children and Parents of Typically Developing Children. Academic Journal of Interdisciplinary Studies. 2013;2(2):345-52.
3. Boyd, B. Examining the relationship between stress and lack of social support in mothers of children with autism. Focus on Autism and Other Developmental Disabilities. 2002;17(4):208-15.
4. Murphy M, Bolton PF, Pickles A, Fombonne E, Piven J, Rutter M. Personality traits of the relatives of autistic probands. Psychol Med. 2000;30(6):1411-24.
5. Khorram Abadi R, Pouretemad HR, Tahmasian K, Chimeh N. A Comparative Study of Parental Stress in Mothers of Autistic and Non Autistic Children. Journal of Family Research. 2009;5(3):387-99.
6. Bitsika V, Sharpley CF. Stress, anxiety and depression among parents of children with autism spectrum disorder. Australian journal of guidance and counselling. 2004;14(2):151-61.
7. De Sousa A. Mothers of children with developmental disabilities An analysis of psychopathology. Journal of Pakistan Psychiatric Society. 2010;7(2):84-90.
8. Gray DE. Ten years on: a longitudinal study of families of children with autism. Journal of Intellectual & Developmental Disabilities. 2002;27(3):215-22.
9. The WHOQOL Group. Development of the World Health Organization WHOQL-BREF Quality of life assessement. Psychological medicine. 1998;28(3):551-8.
10. Cummins RA, Gullone E, Lau ALD. A model of subjective well being homeostasis: The role of personality. In: Gullone E, Cummins RA, editors. The universality of 106 subjective wellbeing indicators. Social Indicators Research Series. Dordrecht: Kluwer; 2002. p. 7-46.
11. Cummins RA, Eckersley R, Pallant J, Van Vugt J, Misajon R. Developing a National Index of Subjective Wellbeing: The Australian Unity Wellbeing Indeks. Social Indicators Research. 2003;64(2):159-90.
12. Allik H, Larsson JO, Smedje H. Health-related quality of life in parents of school-age children with Asperger Syndrome or High-Functioning Autism. Health Qual Life Outcomes. 2006;4:1.
13. Benjak, T. Quality of life and health in parents of children with autistic spectrum disorders [Dissertation]. Zagreb: University of Zagreb; 2010.
14. Emerson E. Mothers of children and adolescents with intellectual disability: social and economic situation, mental health status, and self-assessed social and psychological impact of child's difficulties. Journal of Intellectual Disabilities. 2003;47(4-5):385-99.

15. Lovibond PF, Lovibond SH. The structure of negative emotional states: Comparison of the Depression anxiety stress scales (DASS) with the Beck depression and anxiety inventories. Behaviour Research and Therapy. 1995;33(3):335-43.
16. Jovanović V, Gavrilov-Jerković V, Žuljević D, Brdarić D. Psihometrijska evaluacija Skale depresivnosti, anksioznosti i stresa–21 (DASS–21) na uzorku studenata u Srbiji. Psihologija. 2014;47(1):93-112.

APPENDIX

Table 2 Differences in scores on scales according to the groups of parents

	Group of parents	Arithmetic mean	F	Sig. (2-tailed)
QOL environment	autism	3,4647		
	healthy children	3,4071	,013	,666
QOL social relations	autism	3,7521		
	healthy children	3,9487	2,270	,260
QOL psychological health	autism	3,6795		
	healthy children	4,1538	,965	,002
QOL physical health	autism	4,0476		
	healthy children	4,1832	,055	,321
Level of depression	autism	8,9744		
	healthy children	3,2821	21,422	,000
Level of anxiety	autism	8,9231		
	healthy children	2,4103	26,988	,000
Level of stress	autism	14,6667		
	healthy children	8,4103	,525	,001

Table 3 Differences in scores on scales in the group of parents of children with autistic spectrum disorder, by gender

	Gender	Arithmetic mean	F	Sig. (2-tailed)
QOL environment	Male	3,5441		
	Female	3,4034	,079	,485
QOL social relations	Male	3,9020		
	Female	3,6364	,421	,336
QOL psychological health	Male	3,9314		
	Female	3,4848	,191	,042
QOL physical health	Male	4,1681		
	Female	3,9545	,118	,282
Level of depression	Male	6,3529		
	Female	11,0000	,693	,099
Level of anxiety	Male	7,0588		
	Female	10,3636	,856	,230
Level of stress	Male	12,8235		
	Female	16,0909	,001	,251

NEGATIVNA EMOCIONALNA STANJA I KVALITET ŽIVOTA RODITELJA DJECE SA POREMEĆAJEM AUTISTIČNOG SPEKTRA

Apstrakt

Prevalencija poremećaja autističnog spektra je u stalnom porastu, a s obzirom na manjak institucionalizovane podrške starateljima, primijećeno je da roditelji djece sa problemima ove vrste češće doživljavaju negativna emocionalana stanja kao što su depresivnost, anskioznost i stres, te da kvalitet života doživljavaju lošijim nego roditelji djece koja se tipično razvijaju. Cilj našeg istraživanja je uporediti jačinu simptoma depresivnosti, anksioznosti i stresa, kao i stepen kvaliteta života kod roditelja djece sa poremećajem autističnog spektra i roditelja djece bez razvojnih smetnji.

Istraživanje je kvanitativno, korišteni su upitnik socio-demografskih podataka, skala DASS-21 i skala WHOQOL. Ispitano je 78 ispitanika, od čega 39 roditelja djece sa poremećajem autističnog spektra (članovi udruženja „Djeca svjetlosti“ u Banjoj Luci i EDUS u Sarajevu), te 39 roditelja djece bez razvojnih smetnji. F-testom su upoređeni rezultati na skalama depresivnosti, anksioznosti, stresa i kvaliteta života kod navedene dvije grupe.

Utvrđeno je da postoje statistički značajne razlike u nivou depresivnosti ($F = 3.72$, $p < .01$), anksioznosti ($F = 4.51$, $p < .01$) i stresa ($F = 3.47$, $p < .01$), pri čemu su negativna emocionalna stanja viša kod roditelja djece sa poremećajem autističnog spektra. Kod doživljaja kvaliteta života, statistički značajna razlika je pronađena samo u domenu psihološkog zdravlja ($F = –3.22$, $p < .01$), i to tako da veći stepen zadovoljstva u ovoj oblasti doživljavaju roditelji djece koja se tipično razvijaju.

Preporuke koje proizlaze iz rezultata ovog istraživanja su da bi profesionalci u oblasti mentalnog zdravlja trebali biti obučeni za rad na emocionalnim problemima sa kojima se suočavaju roditelji djece sa poremećajima autističnog spektra, kako bi tretman bio efikasniji i obuhvatniji.

Ključne riječi: poremećaj autističnog spektra, roditelji, stres, anksioznost, depresija, kvalitet života.

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Professional article

DEPRESSION OF CHILDREN WITH DIABETES

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Abstract

Diabetes is chronic condition of children with increase of incidence in our area. The aim of this paper is to examine depression of children with diabetes in relation to their healthy peers. The sample includes 104 participants, from 10 to 15 years of age. Clinical sample includes 52 children with diabetes type 1, and comparative sample of 52 children without diabetes. Data was collected using general information questionnaire and CDI (Children's Depression Inventory) (1).

Data analysis was performed by means of descriptive statistics, parametric and non-parametric statistical techniques. Results indicate that there is no statistically significant difference between the degrees of depression in clinical and control group (Factorial Analysis of Variance, F=2.78, p=.10). Within the clinical sample, no difference was found neither between depression and metabolic regulation of glycaemia through the value of hemoglobin HbA1c (Mann-Whitney U test, Mdn=291, p=.56), nor between depression and the period of duration of diabetes (Kruskal-Wallis test, χ^2=1.97, p=.37).

Conclusion: children with diabetes do not differ in degree of depression from their peers in general population. Especially vulnerable period for occurrence of depression is time interval between 3 and 5 years from the diabetes diagnosis, thus this period should be in focus of targeted and more intensive psychological intervention aimed at prevention of depression and other mental disorders.

Key words: diabetes Type 1, children, depression, prevention, metabolic control.

Introduction

Diabetes is chronic condition with significant increase in incidence and appearance at younger ages. Chronic condition is health disorder which last for more than three months and disturbs children in everyday activities typical for their age. Chronic conditions last for some time with possible short breaks or changes in intensity, but cannot be cured. Diabetes represents one of the most frequent chronic conditions in children and youth which can have different influence on psychological development of patients. It very often develops during the adolescence, although it presents only 5-10% of the total number of diabetes cases. Patients with Type 1 diabetes usually have lower quality of life than those with Type 2 (2).

Modern medicine differentiates two main forms or types of diabetes (3):

1. Insulin-dependent form, Type 1 or juvenile (youth) diabetes, affects primarily children and youth, as well as younger adults. Application of insulin is necessary for its treatment and that is why it is marked as insulin-dependent diabetes. Insulin is pancreatic hormone which regulates metabolism of sugar and other materials in the body. In the further text the term diabetes relates to diabetes Type 1.

2. Insulin-independent diabetes, Type II or diabetes of adults, rarely appears in childhood. Its treatment, at least in the beginning and with most of the patients, does not require application of insulin.

Metabolic regulation of diabetes is performed through glycaemia regulation (regular application of insulin injections in prescribed dose), and each child controls this regulation through everyday measuring of glycaemia and taking notes in the Self-control Diary. Metabolic control of diabetes represents regulation of the blood sugar level and it is very important because it reduces risk of chronic complications which appear as a consequence of diabetes. Good metabolic control is defined with glycosylated level of hemoglobin of HgbA1c < 7,6% (4).

Incidence of diabetes

Monitoring the incidence of diabetes in children and adolescents in European countries shows increase of 3% annualy (5), and it is considerably more often present in children in Scandinavian countries where in the last 50 years annual incidence of new cases has more than doubled. Incidence and prevalence are very high comparing to other countries and each year more than 400 children (in population of near 9 million people) is diagnosed with diabetes (6).

The research which had a goal to compare the incidence of diabetes in children between 0 and 18 years of age in Republic Slovenia and Republic of Srpska in the period 1998-2010 indicates that the incidence in Republic of Slovenia is 12.5/100 000 people, and in Republic of Srpska 7.5/100 000 people. Results were obtained on the sample of 413 children from Republic of Srpska and 664 children from Republic of Slovenia. For the same period of time and the same age group, the annual increase in

incidence in Republic of Srpska was 2,3% (95% CI: -0,3 to 5,0%), while in Slovenia it was 4,3% (95% CI: 2,2 - 6,5%) (7).

Gender differences in incidence of diabetes show that in younger children, diabetes is more often present in boys, and in the age of puberty in girls. Total incidence of disorder in children and youth in respect to gender, based on the gathered data, is a bit higher in girls than in boys (56%:44%). Diabetes is rarely present in the first three years of life, and the highest incidence is noted in the period of puberty, in girls it is between 10 and 12 years of age, and in boys between 12 and 14 years of age (8).

Diabetes and depression

Diabetes is characterized by chronic duration and very complex demands for controlling the disorder on personal and family level, which make it different comparing to all other chronic conditions of children and youth. Cognition that a child has diabetes produces stress for the child itself, and even more for its parents. Reaction to appearance of diabetes in childhood depends on many factors, primarily on age, cognitive, social and emotional development of a child, reactions of parents, as well as reactions of other significant persons involved in child's life. Research which deals with diabetes issues is focused on two domains: a) issues related to diagnostics and b) issues related to complications of diabetes. The period immediately after the diagnostic of diabetes is marked as time of crisis. Among patients with type one diabetes, depression is one of the most frequent co morbid conditions (9).

Depression can be of situational or chronic character. Situational depression is a temporary reaction to an uncomfortable situation and it disappears without interfering with regular activities of a child. Chronic depression is long-lasting disorder, with temporary elevated levels in stressful situations. Chronic depression is more common in children and adolescents and a probability to be diagnosed with chronic depression increases by 10% after first depressive episode occurred (10).

Kovacs (11) found that most of the children (64%) react to diagnosis with mild symptoms such as sadness, feeling of loneliness and social withdrawal, while 36% of children exhibit more extreme depression symptoms, but most of them return to the previous level of psychological functioning within 9 months from the moment of diabetes diagnosis. As most of the chronic conditions with organic origin, diabetes has significant influence on physical and mental health as well as on quality of life of children and their families. Facing the long-term the diagnosis and, according the current knowledge, a life-long disorder demands activation of all psychological mechanisms in order to integrate diabetes diagnosis into everyday life in a way that will have as less influence as possible on quality of life for a child and its family. Even after regular period of adaptation children are burdened with everyday worries about control of diabetes through measuring glycaemia, controlled intake of food, control of physical and mental efforts which represent chronic stress with possibility of consequently leading to symptoms of depression. Depression is mood disorder

characterized by series of symptoms among which the most frequent are negative thoughts and expectations, withdrawal into oneself, sense of hopelessness, sense of guilt, sleep and appetite disorders, loss of energy, reduced motivation and interest in usual activities. Depressive symptoms which are present longer than two weeks and present noticeable change in comparison to previous functioning indicate the need for professional help and support. Connection between depression and poor glycemic control and increased hospitalizations has been determined in several studies (12-14).

Rarely, in individual cases, depression with more intensive symptoms, even with suicide attempts can appear. Failure to comply with prescribed medical regime and medical complications present significant risk for suicidal ideas and suicide attempts. Majority of youth with diabetes who attempt suicide perform it through misuse of insulin (15).

Results of the research show that one fifth of patients with diabetes, or even a quarter of them, according to some other researches, suffer from depression and one of the most frequent causes of this connection is stress (16), due to everyday glycaemia measurement, insulin use and specific diet requirements.

Considering complexity of the problems related to the psycho-social aspects of the diabetes in children and adolescents, in this paper we focused on following hypotheses that have their grounds in clinical work and research data:

First hypothesis: Children and adolescents who have diabetes are more depressed than children and adolescents without diabetes.

Second hypothesis: Symptoms of depression are more pronounced in girls.

Third hypothesis: Symptoms of depression are more pronounced in adolescents (13-15 years) than in children in elementary school (10-12 years).

Fourth hypothesis: Children and adolescents with diabetes who have increased glycohemoglobin levels(HgbA1c>7,6%) are more depressed than those with normal glycohemoglobin levels (HgbA1c< 7,6%)**.**

Fifth hypothesis: Symptoms of depression are most pronounced within two years from the diagnosis.

Methods

This research is a survey with questionnaires used on appropriate sample. Children were examined during the period July - October 2013.

Samples

Sample consists of 104 children, ages 10-15 years. Target group consists of 52 children with diabetes, patients of the Pediatric Clinic in Banja Luka, 28 of whom were questioned at endocrinologist's office during ordinary control checks and 24 children were questioned during the summer camp in Banja Vrućica during ordinary psychological activities.

Criteria for the sample choice were: diagnosis of diabetes and age (10-15 years of age).

Control group consists of 52 children without diabetes or any other chronic conditions, matched by gender and from the same age group, who were questioned in elementary schools in Banja Luka.

Instruments

For the purpose of this research, questionnaire with general information about examined children was created and administered together with Child Depression Inventory CDI (17) which is a modification of Beck Depression Inventory dedicated to examining depression in adults (BDI). This inventory is created for examining depression in children between 8 and 17 years of age, and it contains 27 items which involve wide spectrum of depressive symptoms. Each item contains three statements out of which child chooses one which best describes his/her feelings. Statements are scaled with 0, 1 and 2 points where higher points indicate stronger intensity of symptoms. Overall result is formed as unique linear combination of answers to individual tasks. Total range of results goes from 0 to 54. CDI instrument has good specificity, respectively it makes good difference between children who are clinically depressive and children who are not clinically depressive. The author of this inventory emphasizes that CDI is for measuring intensity of depression and not a diagnostic instrument (17). In this research the Croatian version of CDI questionnaire is used with minimal language adjustments (18). Reliability of CDI instrument in this research was 0.82 Cronbach Alpha.

The data about values of hemoglobin HbA1c for each child is gathered from medical documentation (the last control which preceded the arrival to the camp).

Statistical analysis

Statistical analysis was performed using descriptive statistics methods, non-parametric statistical techniques for comparison of groups in clinical sample (Mann-Whitney U test and Kruskal-Walllis test) and factorial Analysis of Variance (ANOVA).

Results

A total of 104 children between 10 and 15 years of age participated in this research (59.6% girls). For the purpose of the analysis, sample was divided by age into two groups. First group includes children between 10 and 12 years of age (58.7%) and second group includes children between 13 and 15 years of age (41.3%) (annex, Table 1). In respect to duration of diabetes, children are divided in three groups (annex, Table 2). Hemoglobin HbA1c is significant indicator of blood sugar/glucose regulation of each individual child. Values up to 7.6% are considered acceptable and indicate good regulation, and values of 7.6% and higher indicate increased values

and need for correction of some aspect of diabetes control. In the group of children with diabetes, 42.3% of children had values of HbA1c under 7.6, while 57.7% of children had increased values of HbA1c over 7.6 (annex, Table 2).

A factorial ANOVA (annex 1, Table 3) was conducted to compare the main effects of clinical status (annex, Figure 1). None of the effects was statistically significant. Results indicate there was no significant difference between children with diabetes (M=7.39, SD=5.84) and the control group (M=9.37, SD=5.97), between boys (M=9.34, SD=5.66) and girls (M=7.76, SD=6.11) or between children at the age of 12 or younger (M=7.74, SD=5.00), compared to children at the age of 13 or older (M=9.33, SD=7.09). No interaction effects were found, either. These results indicate that children with diabetes are not significantly different from their peers without diabetes in relation to the level of depression, thus the initial hypothesis was not confirmed.

The visual comparison of the depression level of children with/without diabetes, regarding to their gender and age show Figure 1 and Figure 2 within Annex 2 of this paper.

Additional analysis was conducted within the clinical subsample to determine whether levels of hemoglobin or duration of disorder have effect on levels of depression. Results show that there is no significant difference between group of children with hemoglobin HbA1c values under 7.6% (Mdn=7, n=23) and group of children with values of HbA1C of 7.6% and more (Mdn=6, n= 28), U=291, z= -.589, p=.56 (annex 1, Table 4). Depression of children with respect to values of hemoglobin HbA1c is not statistically significant, but there is obvious slight tendency to depression in the group of children with regular values of hemoglobin under 7.6%. No significant difference was determined between children who have lived with diabetes less than 2 years (Mdn=6, N=16), and those children who have had diabetes for 3 to 5 years (Mdn=9, N=17) or those who have had it for 6 years or longer (Mdn=5.5, N=18), X^2 (N=51)=1.97, p=.37 (annex 1, Table 5). Although the difference is not statistically significant, it is worth noticing that children who live with diabetes from 3 to 5 years showed more symptoms of depression in relation to other two analyzed groups.

Discussion

Data in this explorative research shows that there is no statistically significant difference in expressing depression between compared groups. This data is encouraging even more because it is known that higher levels of depression are in correlation with more difficult complications of diabetes regardless of the type 1 of diabetes (2) as well as the age of children in which the depression of clinical level is rarely developed. But clinical sample in this research mostly involved children who have better psycho-social environment and adequately medical and psychological support.

More heterogeneous clinical sample, which includes children with diabetes who do not have ordinarily medical controls could have different values of depression.

There is no statistically significant difference between younger and older group of children in depressiveness although there is noticeable tendency towards higher values of depression in younger children which is not expected and our hypothesis is not confirmed. In most of the other similar research it is noticeable that girls are more prone to depressive symptoms, but in our research boys show tendency to depression more than girls even though there is no significant difference which is also unexpected. This result can possibly be explained by emotional reactions in relation to stress caused by diabetes and ways of coping with it. It is common that girls are more open, talk more and that way "ventilate" negative emotions and anxiety which can have positive outcome in the creasing of degree of depression. On the other side, diabetes control of boys is more influenced by stress (19). Even though this coping strategy aimed at emotions is could be efficient in short term, in long term it is connected to worse quality of life of patients (20). Adolescents with good metabolic control report more social support in the family compared to the group with poor metabolic control (4).

Values of hemoglobin are indicator of quality of metabolic regulation of diabetes. We have expected that children with higher values of hemoglobin have poor regulation and more prone to depressive reactions. However, the data indicate that more depressive are those children with regular values of hemoglobin and better metabolic regulation which could be explained through bigger effort and emotional burden, as well as intention to have regular values. In some cases, parents insist on strict respect of rules, and some children themselves make great effort and waiver in order to achieve optimal control. Results of similar research indicate the value of social support and not avoiding communication about diabetes. In similar research it has been noticed that children with higher values of hemoglobin avoid communication about diabetes with close persons and that they assess lower the quality of their life (21).

Reviewing the results related to duration of disorder, there has been found no statistically significant difference but it is noticeable that the symptoms of depression are more present in children who live with diabetes for 3 to 5 years, then in children who have it for over 6 years, and the least of depression symptoms is identified in those who have it for 0 to 2 years. Period from 3 to 5 years of diabetes duration assumes that children adopted the main rules. Even though, they most probably are "tired" of everyday routine activities. This period would be good foundation for application of social support which would be different from the one necessary in the initial phase of diabetes and when the emphasis is on adaptation. Thus, in this phase, it is not essential to have help focused on treatment of disorder but to have support for social inclusion with understanding and approval and sense of acceptance.

Conclusion

This research has opened number of important questions and it is motivation for testing new hypothesis related to psycho-social aspects of diabetes and possible types of psycho-social support. Even though there were no differences found in respect to depression between children with diabetes and their healthy peers, it is still important to prevent potential mental disorders. Most of the examined children have medical and psycho-social support. Pediatricians are in position to identify changes in behavior over time and to provide early identification and preventive intervention for children and adolescents at risk for depression (9). On the other hand, psychologists are in position to identify important risk factors for mental problems and disorders, such as behavioral and emotional changes and family problems (22).

Advantage of this research is exploratory nature of the study, while main limitations include small sample size, limited age span, self-assessment based questionnaire and lack of studies in the area for comparison of the results and drawing conclusions. Significant limitation of this research is homogeneous structure of clinical sample, which consists of children who have ordinarily medical and psycho-social support.

Implications for future research:

– use qualitative research methods,
– include parents, pediatricians and teachers assessment,
– extend survey to the adolescents group from 15 to 18 years of age,
– assess larger and more heterogeneous clinical sample.

References

1. Kovacs M. The Children's Depression, Inventory (CDI). Psychopharmacol Bull. 1984;21(4):995–8.
2. Pompili M, Lester D, Innamorati M, De Pisa E, Amore M, Ferrara C, et al. Quality of life and suicide risk in patients with diabetes mellitus. Psychosomatics. Elsevier; 2009;50(1):16–23.
3. Bantle JP, Wylie-Rosett J, Albright AL, Apovian CM, Clark NG, Franz MJ, et al. Nutrition recommendations and interventions for diabetes: a position statement of the American Diabetes Association. Diabetes Care. 2008;31:S61–78.
4. Đurović D, Katanić D, Vlaški J. Značaj podrške porodice i vršnjaka za metaboličku kontrolu dijabetesa tip 1 kod adolescenata. Psihologija. 2009;42(4):505–15.
5. Patterson CC, Dahlquist GG, Gyürüs E, Green A, Soltész G, Group ES, et al. Incidence trends for childhood type 1 diabetes in Europe during 1989--2003 and predicted new cases 2005--20: a multicentre prospective registration study. Lancet. Elsevier; 2009;373(9680):2027–33.
6. Lernmark B, Dahlqvist G, Fransson P, Hägglöf B, Ivarsson SA, Ludvigsson J, et al. Relations between age, metabolic control, disease adjustment and psychological aspects in insulin-dependent diabetes mellitus. Acta Paediatr. Wiley Online Library; 1996;85 (7):818–24.

7. Radošević B, Bukara-Radujković G, Miljković V, Pejičić S, Bratina N, Battelino T. The incidence of type 1 diabetes in Republic of Srpska (Bosnia and Herzegovina) and Slovenia in the period 1998--2010. Pediatr Diabetes. Wiley Online Library; 2013;14(4):273–9.
8. Baničević M, Zdravković D. Dete, porodica i šećerna bolest. Beograd: Zavod za udžbenike i nastavna sredstva; 1995.
9. Monaghan M, Singh C, Streisand R, Cogen FR. Screening and identification of children and adolescents at risk for depression during a diabetes clinic visit. Diabetes Spectr. Am Diabetes Assoc; 2010;23(1):25–31.
10. Burgić-Radmanović M. Depresija u djece i mladih. Banja Luka, Bosna i Hercegovina: Medicinski Fakultet Univerziteta u Banjoj Luci; 2008.
11. Kovacs M, Feinberg TL, Paulauskas S, Finkelstein R, Pollock M, Crouse-Novak M. Initial coping responses and psychosocial characteristics of children with insulin-dependent diabetes mellitus. J Pediatr. Elsevier; 1985;106(5):827–34.
12. La Greca AM, Swales T, Klemp S, Madigan S, Skyler J. Adolescents with diabetes: Gender differences in psychosocial functioning and glycemic control. Child Heal Care. Taylor & Francis; 1995;24(1):61–78.
13. Stewart SM, Rao U, Emslie GJ, Klein D, White PC. Depressive symptoms predict hospitalization for adolescents with type 1 diabetes mellitus. Pediatrics. Am Acad Pediatrics; 2005;115(5):1315–9.
14. Hood KK, Huestis S, Maher A, Butler D, Volkening L, Laffel LMB. Depressive symptoms in children and adolescents with type 1 diabetes association with diabetes-specific characteristics. Diabetes Care. Am Diabetes Assoc; 2006;29(6):1389.
15. Goldston DB, Kovacs M, Ho VY, Parrone PL, Stiffler L. Suicidal ideation and suicide attempts among youth with insulin-dependent diabetes mellitus. J Am Acad Child Adolesc Psychiatry. Elsevier; 1994;33(2):240–6.
16. Golden SH, Lazo M, Carnethon M, Bertoni AG, Schreiner PJ, Roux AVD, et al. Examining a bidirectional association between depressive symptoms and diabetes. Jama. American Medical Association; 2008;299(23):2751–9.
17. Marinović L, Vulić-Prtorić A. Usporedba dviju skala dječje depresivnosti s obzirom na neke psihometrijske karakteristike. Rad Filoz Fak u Zadru. 2000;39(16):155–77.
18. Živčić I. Emotional reactions of children to war stress in Croatia. J Am Acad Child Adolesc Psychiatry. Elsevier; 1993;32(4):709–13.
19. Delamater AM, Kurtz SM, Bubb J, White NH, Santiago J V. Stress and coping in relation to metabolic control of adolescents with type 1 diabetes. J Dev Behav Pediatr. LWW; 1987;8(3):136–40.
20. Jović M, Vulić-Prtorić A, Baraban D, Grubić M, Brnović I, Padelin P. Coping strategies and health-related quality of life in children and adolescents with type 1 diabetes. Rev Psychol. Naklada Slap; 2009;16(1):29–36.
21. Letić N, Bukara-Radujković G, Lakić S. Komunikacija o bolesti i kvalitet života adolescenata sa dijabetesom tip I - eksplorativna studija. In: Psihološka istraživanja učenja i ponašanja: Zbornik radova sa naučno-stručnog skupa sa međunarodnim učešćem. Banja Luka, Bosna i Hercegovina: Filozofski fakultet, Društvo psihologa Republike Srpske; 2012. p. 283–98.
22. Vaselić N. Psihološki pristupi djeci i mladima sa dijabetesom. Banja Luka, Bosna i Hercegovina: Filozofski fakultet Univerziteta u Banjoj Luci, Grafid; 2015. 160 p.

Annex 1:

Table 1: Structure of the sample by gender and age

		Frequency	Percentage
Gender	Male	42	40.4
	Female	62	59.6
	Total	104	100.00
Age	10-12 yrs	61	58.7
	13-15 yrs	43	41.3
	Total	104	100.00

Table 2: Structure of clinical (diabetes) subsample by duration of desease and hemoglobin values

		Frequency	Percentage
Disorder duration	Less than 2 yrs	17	32.7
	3 to 5 yrs	17	32.7
	6 yrs and longer	18	34.6
	Total	52	100.0
Hemoglobin values	Under 7.6	22	42.3
	Over 7.6	30	57.7
	Total	52	100.0

Table 3: Factorial Analysis of Variance (ANOVA) between clinical status, gender, age and level of depression

		F	p
Main effects	Clinical status	2.78	.10
	Gender	0.86	.36
	Age	0.83	.36
Interaction effects	Clinical status * Gender	0.29	.59
	Clinical status*Age	1.16	.29
	Gender*Age	0.02	.88

Table 4: Mann-Whitney U test for value of hemoglobin and levels of depression in children with diabetes

Value of hemoglobin	N	Mean rank	Median	Median Mann-Whitney U	p
<7.6	23	27.35	7.00	291	.56
≥7.6	28	24.89	6.00		
Total	51		6.00		

Table 5: Kruskal-Walllis test for duration of disorder and depression

	Duration of diabetes	N	Mean rank	Median	χ^2	p
Depression	Under 2 yrs	16	24.63	9.00	1.97	.37
	3 to 5 yrs	17	30.06	9.00		
	6 yrs and longer	18	23.39	5.50		
	Total	51		6.00		

Annex 2:

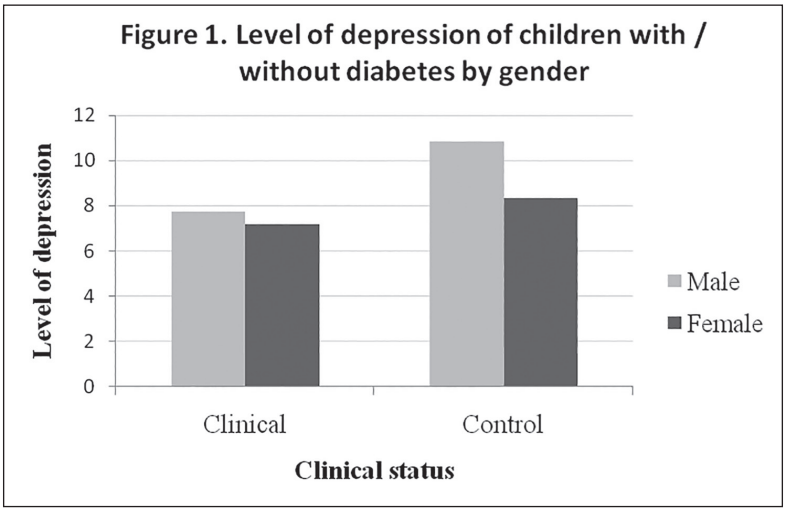
Figure 1. Level of depression of children with / without diabetes by gender
Level of depression
12
10
8
6
4
2
0
Clinical
Control
Clinical status
Male
Female

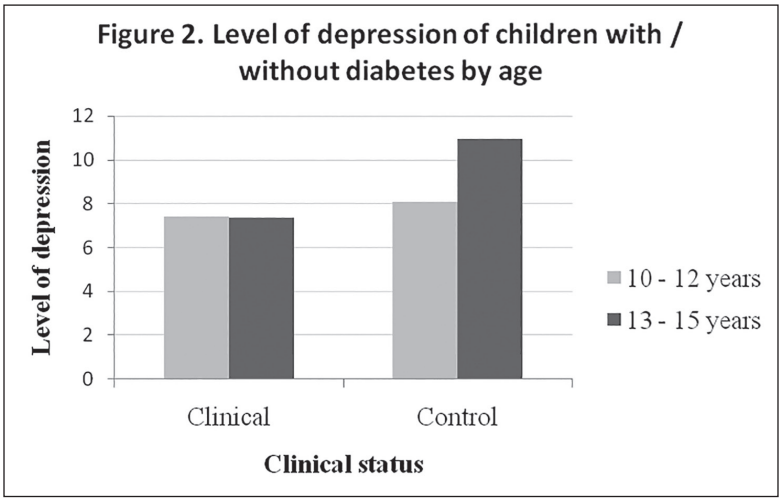
Figure 2. Level of depression of children with / without diabetes by age
Level of depression
12
10
8
6
4
2
0
Clinical
Control
Clinical status
10 - 12 years
13 - 15 years

DEPRESIVNOST DJECE OBOLJELE OD DIJABETESA

Apstrakt

Cilj rada je ispitivanje depresivnosti djece oboljele od dijabetesa u odnosu na zdrave vršnjake. Uzorkom su obuhvaćena 104 ispitanika uzrasta od 10 do 15 godina. Kliničkim uzorkom obuhvaćeno je 52 djece sa dijabetesom tipa 1, a komparativnim 52 djece bez dijabetesa. Ispitivanje kliničkog uzorka provedeno je u kampu djece oboljele od dijabetesa u Banji Vrućici, u augustu 2013. godine. Ispitanici iz komparativne grupe izjednačeni su po uzrastu, polu i mjestu stanovanja, a ispitani su u osnovnim školama u septembru 2013. godine. Primijenjen je upitnik o osnovnim podacima i Inventar depresije za djecu – *Childs Depression Inventory* CDI (1). U obradi rezultata korištene su metode deskriptivne statistike i neparametrijske tehnike za korelacionu analizu. Rezultati ukazuju da nema statistički značajne razlike između nivoa depresivnosti kliničke i komparativne grupe ispitanika (faktorska analiza varijance, $F = 2.78$, $p = .10$). U okviru kliničkog uzorka rađena je korelaciona analiza za procjenu međusobne povezanosti depresivnosti, fiziološke regulacije glikemije (vrijednost HbA1c) i dužine trajanja dijabetesa koje nisu statistički značajno povezane, ali je primijetna tendencija rasta sa trajanjem osnovne bolesti i višim vrijednostima HbA1c. Grafički predstavljeni podaci kliničkog uzorka ukazuju na tendenciju pojave prvih depresivnih simptoma u periodu 3-5 godina nakon pojave dijabetesa, kao i tendenciju ka kritičnim vrijednostima depresije nakon 6 godina. Djeca oboljela od dijabetesa ne razlikuju se, prema stepenu depresivnosti, od vršnjaka iz opće populacije. Posebno vulnerabilan period za pojavu depresivnosti je vremenski interval 3-5 godina od pojave dijabetesa, te bi u tom periodu trebalo usmjeriti ciljane i intenzivnije psihološke intervencije radi prevencije depresivnosti i drugih mentalnih poremećaja.

Ključne riječi: dijabetes tip 1, djeca, depresivnost, prevencija, metaboličnka kontrola.

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RAZLIKOVANJE PREDIKTORA RAZLIČITIH STADIJA KORIŠTENJA MARIHUANE

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Apstrakt

Mehanizmi koji utječu na formiranje stadija korištenja sredstava ovisnosti te progresiju nisu još dovoljno razjašnjeni. **Cilj:** Istraživanje nastoji razjasniti koji čimbenici imaju ulogu prediktora za prelazak na pojedine stadije korištenja marihuane. Postavke Modela višerazinskog socijalnog učenja u pogledu razlikovanja prediktora eksperimentalnog i neeksperimentalnog korištenja poslužile su kao teorijska osnova. **Materijal i metode:** Istraživanje je obuhvatilo 834 učenika trećih i četvrtih razreda srednjih škola iz Mostara. Uzorak je stratificiran s obzirom na vjersko opredjeljenje, vrstu škole i školsko godište. Za potrebe ovog istraživanja formirana je baterija testova pri čemu su prediktorske varijable zahvaćene kraćim skalama, a korištenje marihuane adaptiranom skalom po uzoru na mjere korištene u američkom istraživanju "Monitoring the Future". **Rezultati:** Provedbom stupnjevitih diskriminacijskih analiza potvrđeno je kako se međusobno razlikuju prediktori prelaska na pojedini obrazac korištenja marihuane. Prediktori prelaska s apstinencije na eksperimentalnu konzumaciju su: pritisak vršnjaka za korištenje marihuane, korištenje marihuane od strane prijatelja i neopravdani izostanci. Prediktori prelaska sa eksperimentalnog na rekreativno korištenje su: korištenje marihuane od strane prijatelja, vezanost za školu i planiranje aktivnosti. Korištenje marihuane od strane prijatelja i samokontrola su prediktori prelaska s rekreativnog korištenja na zlouporabu. **Zaključak:** Potvrđeno je razlikovanje čimbenika koji najbolje diskriminiraju različite obrasce korištenja marihuane. Nalazi u pogledu razlikovanja prediktora rekreativne konzumacije i zlouporabe marihuane su preliminarni i moguća je daljnja razrada modela.

Ključne riječi: rizični čimbenici, zaštitni čimbenici, apstinenti, obrasci korištenja cannabisa.

Uvod

Istraživači na području korištenja sredstava ovisnosti pokušavaju utvrditi čimbenike koji neke pojedince čine spremnijim ili sklonijim izabrati korištenje psihoaktivnih tvari. Istraživanja pokazuju kako je korištenje sredstava ovisnosti višestruko određeno te se za objašnjenje ovog fenomena posljednjih godina koristi Model višestrukih rizičnih i zaštitnih čimbenika (1, 2).

Značajan broj mladih koji eksperimentiraju s psihoaktivnim tvarima ili ih čak redovito koriste neko vrijeme ne dođe do razine zlouporabe ili pak razine ovisnosti. Ovaj podatak može poslužiti kao indirektan dokaz da ono što je dovelo do toga da određeni pojedinci probaju ili počnu s korištenjem neke psihoaktivne tvari nije dovoljno kako bi ih istovremeno dovelo u stadij zlouporabe ili pak stadij ovisnosti. Pandina (3), sumirajući opće karakteristike rizičnih i zaštitnih čimbenika, navodi kako oni variraju u značajnosti za pojavljivanje stadija korištenja sredstava ovisnosti i posljedica. Drugim riječima, različiti stadiji na kontinuumu ponašanja spram sredstava ovisnosti mogu biti pod različitim utjecajem različitih konstelacija čimbenika. Čimbenici značajni za ranije stadije poput inicijacije (tj. probanje) mogu se razlikovati kvantitativno i kvalitativno od onih povezanih s prelaskom na stadij ovisnosti.

Malo istraživanja se bavilo pitanjem različitosti uzroka korištenja psihoaktivnih tvari i ovisnosti o njima (2). Kandel i suradnici (1978) su sumnjali kako ovi mehanizmi ne moraju biti isti na svim stadijima te kako je psihopatologija važna primarno za kasnije stadije (4). Newcomb i Bentler (4) su utvrdili kako do korištenja sredstava ovisnosti u većini slučajeva dolazi zahvaljujući socijalnim utjecajima, dok je zlouporaba više povezana sa psihološkim faktorima i procesima poput samoliječenja protiv emocionalne uznemirenosti (2). Vršnjački preventivni programi su se pokazali efikasnim za smanjenje korištenja sredstava ovisnosti, ali imaju manji utjecaj na zlouporabu sredstava ovisnosti. Navedena činjenica može poslužiti kao indirektan dokaz kako do zlouporabe dolazi iz drugih razloga u odnosu na razloge povremenog korištenja sredstava ovisnosti. Na one koji su pod rizikom za zlouporabu sredstava ovisnosti najviše mogu utjecati programi alternativa (4).

Brojne teorije su pokušale objediniti različite konstrukte povezane s korištenjem sredstava ovisnosti. Problem predstavlja nedostatak organizacije, usporedbe i integracije postojećih teorija (5).

Teorijski model višerazinskog socijalnog učenja Simons, Conger i Whitbecka (1988) predstavlja najsveobuhvatniju teoriju korištenja sredstava ovisnosti u adolescenciji u svom pokušaju integriranja individualnih, roditeljskih i vršnjačkih karakteristika u jedan model (6). Petraitis i suradnici (5) navode kako nijedan drugi teorijski model ne nudi tako detaljan uvid u moguće razlike između eksperimentalnog i neeksperimentalnog korištenja psihoaktivnih tvari. Navedeno je jedan od najvažnijih razloga izbora baš ovog modela kao teorijske osnove za ovo istraživanje. Model ima tri razine. Prva razina obuhvata uzroke početnog uključivanja adolescenta u korištenje psihoaktivnih tvari, a to su: a) osobni vrijednosni sustav koji ističe

okrenutost kratkoročnim ciljevima naspram dugoročnih i konvencionalnih ciljeva koji se tiču obitelji, edukacije i religije, b) roditelji koji ne uspijevaju pružiti toplinu, podršku, nadzor i disciplinu i c) korištenje sredstava ovisnosti od strane roditelja. Druga razina uključuje uzroke druženja s devijantnim i vršnjacima koji koriste psihoaktivne tvari, ističući početno eksperimentiranje sa sredstvima ovisnosti i deficit u socijalnim vještinama. Treća razina se usmjerava na uzroke prelaska adolescenta sa eksperimentalnog korištenja sredstava ovisnosti na redovito korištenje i zlouporabu. Čimbenici koji određuju prelazak na redovito korištenje su: a) promatranje roditeljskog korištenja sredstava ovisnosti, b) druženje s vršnjacima koji potiču korištenje psihoaktivnih tvari, c) emocionalna potresenost i d) neadekvatne vještine suočavanja (5). Dosadašnja istraživanja koja se tiču modela su obećavajuća, ali ipak mnoge njegove komponente se trebaju još ispitati (7).

Neki istraživači navode kako je marihuana prva ilegalna psihoaktivna tvar s kojom neki pojedinci odluče eksperimentirati te kako je i najraširenije korištena (8). Istraživanje provedeno na srednjoškolcima Mostara je, također, potvrdilo navedeno (9). Razmatranje čimbenika koji određuju korištenje marihuane je odabrano u ovom istraživanju upravo iz razloga što je marihuana najučestalije korištena psihoaktivna tvar nakon duhana i alkohola. Provedeno istraživanje nastoji pojasniti radi li se o potpuno različitom sklopu čimbenika koji su odgovorni za različite obrasce korištenja marihuane, tj. eksperimentalno korištenje, rekreativno korištenje i zlouporabu, ili se radi o različitoj snazi ili izraženosti istih čimbenika s obzirom na povezanost s različitim obrascima. Stadij ovisnosti nije razmatran iz razloga što je bilo teško očekivati kako bi se u uzorku srednjoškolaca našao dovoljan broj onih koji su već na tom stadiju, a da se može primijeniti adekvatna statistička analiza.

Cilj. Istraživanje nastoji razjasniti koji čimbenici imaju ulogu prediktora za prelazak na pojedine stadije korištenja marihuane. Postavke Modela višerazinskog socijalnog učenja u pogledu razlikovanja prediktora eksperimentalnog i neeksperimentalnog korištenja poslužile su kao teorijska osnova.

Materijal i metode

Ispitanici

U istraživanju su sudjelovala 834 ispitanika, učenici trećih i četvrtih razreda srednjih škola iz Mostara. Prosječna dob ispitanika je M = 17.55 godina (standardna devijacija σ = .66, raspon 16-20). Uzorkovanje se provelo u 4 koraka pri čemu je dobiven stratificirani uzorak s obzirom na vjersko opredjeljenje, vrstu škole i školsko godište.

Sudjelovanje u istraživanju je bilo dobrovoljno i svaki učenik se, nakon uvodnog obrazloženja istraživanja i čitanja upute a prije početka ispunjavanja upitnika, mogao izjasniti ako ne želi sudjelovati. Ukupno četvero učenika se odmah izjasnilo kako ne želi sudjelovati.

Mjerni instrumenti

U istraživanju je primjenjena baterija upitnika. Prediktorske varijable zahvaćene su kraćim skalama. Upravljanje emocijama je jedna od komponenti emocionalne inteligencije koja se mjerila skalom preuzetom iz upitnika UEK-45 (10). Samokontrola je mjerena *Skraćenom skalom samokontrole* (11). U ovom istraživanju religioznost je mjerena *Upitnikom religioznosti,* koji je konstruirao D. Ljubotina 2003. godine pri čemu je izbačena jedna čestica koja nije pokazala zadovoljavajuća psihometrijska svojstva u istraživanju Vučine (9).

Mjere traženja uzbuđenja, buntovništva, vezanosti za školu, obiteljskog konflikta, korištenja alkohola od strane prijatelja te tranzicije i mobilnosti su preuzete iz istraživanja „Communities That Care", a koje se osniva na radu Dr. J. David Hawkinsa i Dr. Richard F. Catalana. Hedonističke vrijednosti su mjerene skalom od 3 čestice koja je formirana na osnovi izbora najprikladnijih čestica iz dvije skale korištene u drugim istraživanjima (12, 13). Suočavanje sa stresom je zahvaćeno podskalom izbjegavanja i podskalom planiranja aktivnosti kreiranih i razmatranih u istraživanju Arcel, Folnegović-Šmalc, Tocilj-Šimunković, Kozarić-Kovačić i Ljubotine (14).

Akademski neuspjeh je obuhvaćen pomoću broja negativnih ocjena u prethodnom polugodištu, dok je školski uspjeh razmatran na osnovi prosječnog uspjeha na kraju zadnjeg polugodišta. Neopravdani izostanci su zahvaćeni brojem neopravdanih izostanaka u prethodnom polugodištu. Korištenje droga od strane članova obitelji utvrđivalo se posebno za svakog od članova te je formirana kompozitna mjera broj konzumenata droga u obitelji. Prisutnost alkoholizma roditelja zahvaćena je mjerom preuzetom iz nacionalnog longitudinalnog epidemiološkog istraživanja korištenja i zlouporabe alkohola u SAD-u (NLAES) iz 1992. godine (15). Roditeljski nadzor, roditeljska podrška i zajedničko odlučivanje mjereni su skalama roditeljskih odgojnih postupaka (16). Izloženost direktnoj ponudi i pritisku vršnjaka te izloženost direktnoj ponudi i pritisku odraslih su mjere kojima se nastojalo utvrditi u kojoj mjeri je adolescentu direktno ponuđen i u kojoj mjeri je nagovaran da proba marihuanu od strane vršnjaka, odnosno, od strane odraslih. Ova mjera je kreirana za potrebe ovog istraživanja. Korištenje marihuane zahvaćeno je adaptiranom skalom po uzoru na mjere korištene u američkom istraživanju „Monitoring the Future" (17). Standardni set od 3 pitanja koristio se za određivanje frekvencije uzimanja za tri nivoa korištenja: a) u toku čitavog života, b) u toku zadnjih 12 mjeseci i c) u toku zadnjih 30 dana. Korištene su i mjere kvantitete kako bi se zahvatilo uobičajeno konzumiranje marihuane po prilici.

Postupak

Istraživanje je bilo transverzalno i provedeno je u ožujku 2008. godine. Provedba istraživanja je odobrena od strane Ministarstva prosvjete, znanosti, kulture i športa,

a navedeno ministarstvo je ustupilo i statističke podatke o srednjim školama na području grada Mostara (vrste škola, broj učenika, broj po spolu). Sve škole koje su po slučaju odabrane za istraživanje su pristale na sudjelovanje. Sa odabranim školama unaprijed je dogovoreno provođenje istraživanja. Upitnici su primijenjeni grupno, u okviru jednog školskog sata.

Povjerljivost i anonimnost danih podataka je pojašnjena usmeno od strane ispitivača te u pisanoj formi u obliku upute na početku upitnika. U svrhu povjerljivosti i anonimnosti podataka za vrijeme ispitivanja u učionici je bio prisutan samo ispitivač.

Pitanja o korištenju marihuane slijede odmah nakon mjerenja sociodemografskih varijabli iz razloga što se može pretpostaviti kako je koncentracija ipak nešto bolja na početku ispunjavanja upitnika, a ova pitanja zahtijevaju dosjećanje događaja iz više ili manje daleke prošlosti te sumiranje ovih informacija.

Statistički dizajn

Sociodemografske varijable su isključene iz diskriminacijskih analiza. Jedan od razloga isključivanja sociodemografskih varijabli iz diskriminacijskih analiza predstavlja činjenica da manji broj varijabli u analizi obično može pomoći u dobivanju jasnijih i interpretabilnijih rezultata. Drugi razlog njihovog isključivanja predstavlja činjenica kako je jedan od uvjeta provedbe diskriminacijskih analiza da razmatrane diskriminacijske varijable trebaju biti izražene najmanje intervalnom skalom (18), a taj uvjet sociodemografske varijable ne udovoljavaju. Konačan broj prediktorskih varijabli u diskriminacijskim analizama je iznosio 22.

Diskriminacijskim analizama se pokušalo utvrditi koji čimbenici doprinose razlikovanju obrazaca korištenja marihuane. U ovom su se istraživanju obrasci korištenja nastojali utvrditi uz pomoć odgovora koje su ispitanici dali u pogledu učestalosti i kvantitete korištenja. Ispitanici su s obzirom na obrazac korištenja marihuane podijeljeni u četiri skupine: apstinenti, eksperimentalni konzumenti, rekreativni konzumenti i razina zlouporabe. Skupinu apstinenata čine oni koji do trenutka istraživanja nisu probali marihuanu. Eksperimentalni konzumenti su po definiciji u ovom istraživanju pojedinci koji su 1 do 2 puta konzumirali marihuanu. Razlikovanje razine rekreativnog korištenja i zlouporabe ostvareno je po uzoru na istraživanje Newcomba i Felix-Ortiza (1) koje je obuhvatalo, također, ispitanike srednje adolescencije (2). U ovom istraživanju razina zlouporabe za marihuanu predstavlja pušenje 2 ili više džointa po prilici. S obzirom na navedeno definiranje razine zlouporabe, rekreativno korištenje je konzumacija marihuane više od 2 puta te da nije dosegnuta razina zlouporabe.

Na osnovi rezultata diskriminacijske analize koja uključuje sve četiri skupine odjednom može se zaključiti samo koji prediktori općenito razlikuju ispitanike u tim skupinama i koji su povezani s diskriminacijskom funkcijom (ili funkcijama) te se ne može jasno utvrditi koji od njih određuju prelazak s određene razine (obrasca) na sljedeću (uz poštivanje hijerarhijskog slijeda). Stoga je donesena odluka o

provođenju tri odvojene diskriminacijske analize kako bi se dobile ove vrijedne informacije, i to na poduzorcima: a) apstinenata i eksperimentalnih konzumenata, b) eksperimentalnih konzumenata i rekreativnih konzumenata i c) rekreativnih konzumenata i onih na razini zlouporabe. Korištena je metoda stupnjevite diskriminacijske analize kako bi se izdvojio najmanji set diskriminacijskih (prediktorskih) varijabli koje su najvažnije za razlikovanje razmatranih skupina. Važno je naglasiti kako bi korištenjem diskriminacijskih analiza u kojima se istovremeno unose sve varijable u nekim slučajevima utvrdio veći broj varijabli koje razlikuju pojedine skupine od broja varijabli koje utvrđuju stupnjevite diskriminacijske analize. S obzirom na navedeno, treba s određenim oprezom uzeti potvrđene prediktorske varijable te je moguće da i neke izbačene varijable (npr. iz reda onih potvrđenih ANOVA-ma) imaju značajnu ulogu u predviđanju prelaska na susjednu razinu ili obrazac korištenja.

Rezultati

Zastupljenost korištenja marihuane u uzorku je bila sljedeća: 17.4% ispitanika se izjasnilo da je koristilo marihuanu u toku života, 11.6% u zadnjih 12 mjeseci te 6.1% u zadnjih 30 dana.

U ovom istraživanju je razmatrana uloga velikog broja varijabli kao potencijalnih rizičnih i zaštitnih čimbenika korištenja marihuane. Utvrđena je visoka negativna povezanost varijable školski uspjeh i akademski neuspjeh ($r = –.86$, $p < .001$), što je razumljivo s obzirom na način konstrukcije ovih varijabli. Kako ove dvije varijable dijele značajan dio varijance rezultata te kako je varijabla školski uspjeh nešto pravilnije distribuirana, iz daljih statističkih analiza je isključena varijabla akademski neuspjeh. Varijable podrške i odlučivanja za majku ($r = .61$, $p < .001$) te iste varijable za oca ($r = .60$, $p < .001$) su bile umjereno međusobno povezane. Kako su varijable podrške i varijable odlučivanja s roditeljem mjerene istom skalom, tj. imaju iste ponuđene odgovore, a uzimajući u obzir dobivene koeficijente korelacije, odlučeno je formirati dvije kompozitne mjere. S obzirom na navedeno, formirane su varijabla podrške i zajedničkog odlučivanja s majkom te varijabla podrške i zajedničkog odlučivanja s ocem koje su dalje korištene u statističkim analizama. Formirana je samo varijabla alkoholizam oca, dok varijablu alkoholizam majke nije bilo moguće formirati jer se nijedan ispitanik nije izjasnio da ima majku alkoholičara.

Zastupljenost ispitanika u 4 različita obrasca korištenja marihuane je bila sljedeća: 689 apstinenta (82.7%), 65 eksperimentalnih konzumenata (7.8%), 48 rekreativnih konzumenata (5.8%) i 31 ispitanik na razini zlouporabe marihuane (3.7%)

Prije provedbe stupnjevitih diskriminacijskih analiza uočen je nesrazmjer skupina apstinenata i eksperimentalnih konzumenata s obzirom na broj ispitanika (689 apstinenata, 65 eksperimentalnih konzumenata). Kako je grupa apstinenata marihuane bila značajno veća, odlučeno je formirati slučajni uzorak koji bi činilo 15% ispitanika početne skupine apstinenata, dok je skupina eksperimentalnih konzumenata marihuane zadržana u cijelosti. Stupnjevita diskriminacijska analiza je provedena

na 151 ispitaniku. Izdvojena je jedna diskriminacijska funkcija koja je razlikovala navedene grupe (hi-kvadrat = 70.320, df = 3, p < .0001) (tablica 1).

Tablica 1: Rezultati stupnjevite diskriminacijske analize za klasificiranje adolescenata u apstinente ili eksperimentalni obrazac korištenja marihuane

Wilksov lambda = .765		df = 1	p = .000
Wilksov lambda = .688		df = 2	p = .000
Wilksov lambda = .621	Hi-kvadrat = 70.320	df = 3	p = .000
Karakteristični korijen = .611		Kanonička korelacija = .616	

Legenda: **p** – stupanj statističke značajnosti, **df** – stupnjevi slobode

Utvrđena su tri najvažnija prediktora probanja marihuane, i to: pritisak vršnjaka za korištenje marihuane, neopravdani izostanci i korištenje marihuane od strane prijatelja. Sve tri varijable su pozitivno povezane s vrijednošću diskriminacijske funkcije. Drugim riječima, što adolescent ima više neopravdanih izostanaka, što ima više prijatelja koji koriste marihuanu i što ga više vršnjaci nagovaraju na korištenje marihuane to je vjerojatnije da će probati marihuanu. Jednosmjerne analize varijance su utvrdile kako se grupe apstinenata i eksperimentalnih konzumenata razlikuju s obzirom na 9 varijabli. Pored tri navedene varijable, skupine se razlikuju i s obzirom na traženje uzbuđenja, buntovništvo, izbjegavanje, podršku i odlučivanje s majkom, školski uspjeh i pritisak odraslih za korištenje marihuane. Diskriminacijska funkcija je općenito uspješno predvidjela ishod za 80% slučajeva, pri čemu su točna predviđanja učinjena za 87.3% apstinenata i 67.7% eksperimentalnih konzumenata (tablica 2).

Stupnjevita diskriminacijska analiza za korištenje marihuane za skupine eksperimentalnih i rekreativnih konzumenata je provedena na 97 ispitanika. Utvrđena je jedna diskriminacijska funkcija koja je razlikovala ove skupine (hi-kvadrat = 37.055, df = 3, p < .0001) (tablica 3).

Izdvojene su tri varijable kao najvažniji prediktori nastavka korištenja marihuane, i to: korištenje marihuane od strane prijatelja, vezanost za školu i planiranje aktivnosti.

Korištenje marihuane od strane prijatelja je pozitivno povezano s vrijednošću diskriminacijske funkcije, dok su vezanost za školu i planiranje aktivnosti negativno povezane s funkcijom. Drugim riječima, što adolescent ima više prijatelja koji koriste marihuanu više je sklon nakon probanja nastaviti s korištenjem marihuane, a kad je više vezan za školu i više koristi metodu planiranja aktivnosti pri suočavanju sa stresom tad je manje sklon nastaviti s konzumacijom marihuane. Jednosmjerne analize varijance su utvrdile kako se razmatrane skupine razlikuju i s obzirom na upravljanje emocijama, neopravdane izostanke i pritisak odraslih za korištenje marihuane. Diskriminacijska funkcija je općenito uspješno predvidjela ishod za 77.7% slučajeva, pri čemu je 78.5% točnih predviđanja bilo za eksperimentalne konzumente te 76.6% za rekreativne konzumente (tablica 4).

Tablica 2: Rezultati stupnjevite diskriminacijske analize za klasificiranje adolescenata u apstinente ili eksperimentalni obrazac korištenja marihuane

	Stadij korištenja marihuane		F test	Koeficijenti strukture
	sA	E		
	(n = 95)	(n = 56)		
Prediktorske varijable	M	M		
Individualne				
ukupna religioznost	43.93	41.41	1.347	-.065
hedonizam	11.46	11.18	.403	.022
traženje uzbuđenja	7.61	8.86	**4.916***	.327
buntovništvo	6.74	7.46	**4.379***	.212
samokontrola	41.96	39.80	2.619	-.182
planiranje aktivnosti	9.04	8.93	.056	-.081
izbjegavanje	4.18	5.05	**4.380***	.107
Obiteljske				
nadzor majke	12.59	11.96	2.446	-.282
podrška – odlučivanje s majkom	32.31	30.71	**7.255****	-.059
nadzor oca	11.75	11.25	1.445	-.205
podrška – odlučivanje s ocem	31.21	30.29	1.887	-.075
broj konzumenata droga u obitelji	.02	.02	.018	.196
alkoholizam oca	1.07	1.07	.003	-.019
obiteljski konflikt	4.72	5.25	2.341	-.099
Školske				
školski uspjeh	3.07	2.48	**5.333***	-.161
neopravdani izostanci	2.17	3.05	**26.088*****	.535
vezanost za školu	19.07	18.89	.065	-.238
Vršnjačke				
korištenje marihuanu prijatelja	1.05	1.66	**32.739*****	.600
pritisak vršnjaka za marihuanu	1.13	1.95	**45.662*****	.708
Zajednice				
pritisak odraslih za marihuanu	1.02	1.16	**5.847***	.371
tranzicija i mobilnost	4.39	4.32	.056	-.099
Centroidi	-.596	1.011		
Točno klasificiranih	87.3%	67.7%	**Ukupno točnih** 80.0%	

Legenda: **sA** – slučajni uzorak apstinenata, **E** – eksperimentalni konzumenti, **n** – broj ispitanika, **M** – aritmetička sredina, *– p < .05, **– p < .01, ***– p< .001

Tablica 3: Rezultati stupnjevite diskriminacijske analize za klasificiranje adolescenata u eksperimentalni ili rekreativni obrazac korištenja marihuane

Wilksov lambda = .806		df = 1	p = .000
Wilksov lambda = .705		df = 2	p = .000
Wilksov lambda = .673	Hi-kvadrat = 37.055.	df = 3	p = .000
Karakteristični korijen = .486		Kanonička korelacija = .572	

Legenda: **p** – stupanj statističke značajnosti, **df** – stupnjevi slobode

Tablica 4: Rezultati stupnjevite diskriminacijske analize za klasificiranje adolescenata u eksperimentalni ili rekreativni obrazac korištenja marihuane

	Stadij korištenja marihuane		F test	Koeficijenti strukture
	E	R		
	(n = 56)	(n = 41)		
Prediktorske varijable	M	M		
Individualne				
upravljanje emocijama	61.93	58.46	**4.725***	.264
ukupna religioznost	41.41	35.46	3.537	.070
hedonizam	11.18	11.78	1.043	-.056
traženje uzbuđenja	8.86	9.44	.652	-.109
buntovništvo	7.46	8.12	2.059	-.180
samokontrola	39.80	36.66	3.756	.120
planiranje aktivnosti	8.93	7.24	**10.239****	.471
izbjegavanje	5.05	5.15	.025	.050
Obiteljske				
nadzor majke	11.96	11.32	1.633	.272
podrška – odlučivanje s majkom	30.71	30.66	.005	.170
nadzor oca	11.25	10.17	3.931	.169
podrška – odlučivanje s ocem	30.29	29.05	1.717	.073
broj konzumenata droge u obitelji	.02	.05	.745	-.195
alkoholizam oca	1.07	1.15	1.428	.152
obiteljski konflikt	5.25	5.29	.008	.034
Školske				
školski uspjeh	2.48	2.20	.856	.165
neopravdani izostanci	3.05	3.68	**8.269****	-.152
vezanost za školu	18.89	15.32	**17.922*****	.623
Vršnjačke				
korištenje marihuanu prijatelja	1.66	2.78	**22.816*****	-.703
pritisak vršnjaka za marihuanu	1.95	2.41	3.712	-.219
Zajednice				
pritisak odraslih za marihuanu	1.16	1.56	**6.039***	-.275
tranzicija i mobilnost	4.32	4.12	.437	-.004
Centroidi	.591	-.807		
Točno klasificiranih	78.5%	76.6%	**Ukupno točnih** 77.7%	

Legenda: **E** – eksperimentalni konzumenti, **R** – rekreativni konzumenti, **n** – broj ispitanika, **M** – aritmetička sredina, *–p < .05, **–p < .01, ***–p< .001

Stupnjevita diskriminacijska analiza za korištenje marihuane za skupine rekreativnih konzumenata i onih na razini zlouporabe je provedena na 69 ispitanika. Utvrđena je jedna diskriminacijska funkcija koja je razlikovala ove skupine (hi-kvadrat = 17.071, df = 2, p < .0001) (tablica 5).

Tablica 5: Rezultati stupnjevite diskriminacijske analize za klasificiranje adolescenata u rekreativni ili obrazac zlouporabe marihuane

Wilksov lambda = .823		df = 1	p = .000
Wilksov lambda = .772	Hi-kvadrat = 17.071	df = 2	p = .000
Karakteristični korijen = .295		Kanonička korelacija = .477	

Legenda: **p** – stupanj statističke značajnosti, **df** – stupnjevi slobode

Tablica 6: Rezultati stupnjevite diskriminacijske analize za klasificiranje adolescenata u rekreativni ili obrazac zlouporabe marihuane

	Stadij korištenja marihuane		F test	Koeficijenti strukture
	R	Z		
	(n = 41)	(n = 28)		
Prediktorske varijable	M	M		
Individualne				
upravljanje emocijama	58.46	60.04	.634	.066
ukupna religioznost	35.46	35.68	.003	-.173
hedonizam	11.78	13.14	**5.410***	.097
traženje uzbuđenja	9.44	11.21	**4.119***	.102
buntovništvo	8.12	8.68	1.157	.172
samokontrola	36.66	33.36	3.104	-.396
planiranje aktivnosti	7.24	8.11	1.407	.013
izbjegavanje	5.15	5.57	.380	.140
Obiteljske				
nadzor majke	11.32	11.64	.271	-.107
podrška – odlučivanje s majkom	30.66	30.64	.000	-.072
nadzor oca	10.17	10.39	.099	-.035
podrška – odlučivanje s ocem	29.05	30.00	.546	.008
broj konzumenata droga u obitelji	.05	.11	.577	.065
alkoholizam oca	1.15	1.04	2.242	-.022
obiteljski konflikt	5.29	4.93	.401	.045
Školske				
školski uspjeh	2.20	2.18	.002	.056
neopravdani izostanci	3.68	3.79	.134	-.048
vezanost za školu	15.32	15.07	.054	-.108
Vršnjačke				
korištenje marihuane prijatelja	2.78	4.00	**14.413*****	.854
pritisak vršnjaka za marihuanu	2.41	2.93	1.842	-.029
Zajednice				
pritisak odraslih za marihuanu	1.56	1.93	1.449	-.060
tranzicija i mobilnost	4.12	4.00	.123	-.031
Centroidi	-.442	.648		
Točno klasificiranih	66%	67.7%	**Ukupno točnih** 66.7%	

Legenda: **R** – rekreativni konzumenti, **Z** – zlouporaba, **n** – broj ispitanika, **M** – aritmetička sredina, *– p < .05, ***– p < .001

Korištenje marihuane od strane prijatelja i samokontrola su dva najvažnija prediktora zlouporabe marihuane. Korištenje marihuane od strane prijatelja je pozitivno povezano s vrijednošću diskriminacijske funkcije, dok je samokontrola negativno povezana s funkcijom. Drugim riječima, što adolescent ima više prijatelja koji koriste marihuanu i što ima slabiju samokontrolu to je vjerojatnije da će sa rekreativnog korištenja preći na zlouporabu marihuane. Jednosmjerne analize varijance su utvrdile kako se skupine rekreativnih konzumenata i onih na razini zlouporabe marihuane razlikuju s obzirom na hedonizam, traženje uzbuđenja i korištenje marihuane od

strane prijatelja. Diskriminacijska funkcija je općenito uspješno uspjela predvidjeti uspjeh za 66.7% ispitanika, tj. točnije za 66% rekreativnih konzumenata i 67.7% onih na razini zlouporabe (tablica 6).

Diskusija

Stupnjevite diskriminacijske analize su provedene s ciljem da daju odgovor razlikuju li se međusobno prediktori koji određuju prelazak s apstinencije na eksperimentalnu konzumaciju, s eksperimentalne konzumacije na rekreativnu te rekreativne konzumacije na zlouporabu marihuane. U istraživanje su uključene varijable koje ističe Model višerazinskog socijalnog učenja Simonsa i suradnika, ali i varijable koje ovaj model direktno ne navodi. Varijable koje navodi model, a potvrđene su ovim istraživanjem kao važne za razlikovanje razina ili obrazaca korištenja, su: vezanost za školu (osobni vrijednosni sustav koji daje prednost trenutnim ciljevima nad dugoročnim i konvencionalnim ciljevima), korištenje marihuane od strane prijatelja, pritisak vršnjaka za korištenje marihuana i planiranje aktivnosti (metoda suočavanja sa stresom). Pored navedenih varijabli, rezultati ovog istraživanja ukazuju i na važnost sljedećih varijabli u predviđanju razina korištenja, a koje model direktno ne navodi, a to su: samokontrola i neopravdani izostanci.

Rezultati istraživanja su pokazali kako se međusobno razlikuju prediktori prelaska na pojedinu razinu ili obrazac korištenja marihuane, što pretpostavlja i Model višerazinskog socijalnog učenja. Izuzetak jedino čine varijable korištenja marihuane od strane prijatelja koje su bile prediktori i za eksperimentalno i za neeksperimentalno (rekreativno i zlouporaba) korištenje.

Pretpostavke modela se odnose općenito na sva sredstva ovisnosti, a u istraživanju se razmatralo razlikovanje prediktora različitih obrazaca korištenja marihuane. Model pretpostavlja kako prva iskustva konzumacije počinju s alkoholom te kako adolescente prema početnoj konzumaciji tjera vrijednosni sustav koji nije okrenut prema edukaciji, roditelji koji ne uspijevaju djeci pružiti toplinu, podršku, nadzor i disciplinu, te koji sami ispoljavaju obrazac korištenja sredstava ovisnosti (5). Obiteljske varijable predviđene modelom nisu bile prediktori probanja marihuane. Međutim, moguće je da su ove varijable imale indirektan utjecaj, što bi trebalo provjeriti u narednim istraživanjima. Nalazi istraživanja pokazuju kako su neke obiteljske varijable koje su navedene u modelu važne za određivanje prelaska na ozbiljnije stadije konzumacije alkohola (19), te je moguće kako s progresijom s korištenja legalnih psihoaktivnih tvari na ilegalne psihoaktivne tvari (tj. marihuanu) utjecaj obiteljskih varijabli slabi.

Za marihuanu se u slučaju predviđanja početka korištenja dobiveni prediktori mogu samo djelomično povezati s onima pretpostavljenim u razmatranom modelu. Neopravdani izostanci su tako utvrđeni kao prediktor probanja marihuane, a mogu se smatrati bihevioralnim pokazateljem niske vezanosti za školu pa djelom odgovaraju pretpostavkama modela. Čini se kako neopravdani izostanci rastu i prate prelazak s

legalnih na ilegalna sredstva ovisnosti (početak konzumacije marihuane). Međutim, za prediktore početnih iskustava s marihuanom su utvrđene vršnjačke varijable, tj. korištenje prijatelja i pritisak vršnjaka, čiji se utjecaj po modelu pretpostavlja tek na sljedećim razinama korištenja. Objašnjenje ovog odstupanja od modela može pomoći činjenica kako početna iskustva s marihuanom dolaze u pravilu nakon iskustava konzumacije duhana i/ili alkohola te je adolescent već ranije došao u kontakt s devijantnim vršnjacima koji konzumiraju legalna sredstva ovisnosti.

Rezultati potvrđuju postavke Modela višerazinskog socijalnog učenja kako vještine suočavanja (ovdje planiranje aktivnosti) i korištenje (marihuane) od strane prijatelja vode neeksperimentalnom (redovitom) korištenju marihuane, dok roditeljsko korištenje (droga) nije potvrđeno kao prediktor. Model Simonsa i suradnika uglavnom ističe ulogu neadekvatnih vještina suočavanja, poput izbjegavanja, međutim, ovdje je razmatrana uloga i metode planiranja aktivnosti kao pozitivnog načina suočavanja sa stresom. Čini se kako planiranje aktivnosti predstavlja zaštitni čimbenik da nakon probanja marihuane ne dođe do njenog daljnjeg korištenja. Simons i Robertson (20) smatraju da su pojedinci koji se značajno oslanjaju na strategije suočavanja koje uključuju poricanje, izbjegavanje i/ili distrakciju pod većim rizikom za visoke razine korištenja sredstava ovisnosti u odnosu na osobe koje preferiraju metode suočavanja koje uključuju direktnu akciju.

Druga razina modela Simonsa i suradnika (1988) pokušava objasniti uzroke druženja s devijantnim vršnjacima koji koriste sredstva ovisnosti na način da postavljaju kako će adolescenti gravitirati prema devijantnim vršnjacima ako su koristili sredstva ovisnosti u prošlosti (5). Istraživanjem je, međutim, utvrđeno kako je korištenje marihuane od strane prijatelja konzistentan prediktor ne samo probanja, već i prelaska iz jednog obrasca (stadija) korištenja u drugi obrazac korištenja. Može se pretpostaviti kako sve veća konzumacija marihuane veže za sebe dublju uključenost u devijantnu skupinu vršnjaka. Može se reći kako s rastom u ozbiljnosti konzumacije u pravilu raste i broj najbližih prijatelja koji konzumiraju marihuanu. Navedenim procesom, međutim, nije isključen ni proces selekcije. Model višerazinskog socijalnog učenja ističe kako vršnjaci koji potiču korištenje sredstava ovisnosti predstavljaju jedan od uzroka da nakon eksperimentiranja dođe do nastavljanja korištenja sredstava ovisnosti (5). U ovom kontekstu se mogu razmatrati i varijable pritiska vršnjaka za korištenje marihuane pri čemu je ova varijabla prediktor probanja marihuane. Samokontrola kao individualna varijabla postaje važna tek pri prelasku s rekreativnog korištenja na zlouporabu marihuane.

Teškoće razlikovanja rekreativnih konzumenata marihuane od onih na razini zlouporabe najvjerojatnije su u ovom slučaju posljedica relativno malog broja ispitanika u ovim obrascima u korištenom uzorku.

Implikacije nalaza

Dobivanje uvida u čimbenike koji razlikuju apstinente, eksperimentalne konzumente, rekreativne konzumente i one koji su na razini zlouporabe, odnosno, predviđajući što može utjecati na prelazak iz stadija u stadij važno je kako za primarnu tako i za sekundarnu prevenciju ovisnosti.

Kako je cilj primarne prevencije odgađanje, odvraćanje ili uklanjanje početka korištenja psihoaktivnih tvari, čimbenici koji su diskriminacijskom analizom utvrđeni da predviđaju probanje trebali bi biti sadržani u programima primarne prevencije. S obzirom na rezultate za primarnu prevenciju marihuane, treba kombinirati utvrđene vršnjačke i školske čimbenike. Potrebno se usmjeriti na ulogu vršnjaka i djelovati na varijable korištenje prijatelja i pritiska vršnjaka te uključiti u programe adolescente s većim brojem neopravdanih izostanaka.

Zahvaćanje vršnjačke komponente u okviru programa primarne prevencije bi trebalo uključivati razvijanje vještina socijalne kompetencije putem poboljšanja komunikacije, ojačavanja pozitivnih vršnjačkih odnosa i socijalnih ponašanja te vještina otpora kako odbiti ponude marihuane. Programi *Peer to peer edukacije* su primjer intervencija u kojima se vršnjaci apstinenti kao pozitivni modeli angažiraju da svojim vršnjacima objasne zašto ne koriste sredstva ovisnosti i tako ih odvrate od njihovog korištenja. Van der Stel (21) navodi kako su programi ove vrste djelotvorni u odgađanju početka korištenja.

Sekundarna prevencija ovisnosti podrazumijeva rano otkrivanje konzumenata psihoaktivnih tvari s ciljem sprječavanja razvoja ovisnosti. U ovoj skupini mladih su oni koji su samo probali, ali i oni koji marihuanu već rekreativno koriste a nisu još došli na razinu zlouporabe kao ni ovisnosti. Stoga su za kreiranje programa sekundarne prevencije marihuane važni čimbenici koji predviđaju prelazak s eksperimentalnog na rekreativno korištenje, te oni koji predviđaju prelazak s rekreativnog korištenja na zlouporabu. Potencijalno najefikasniji bi mogli biti programi sekundarne prevencije koji bi se usmjerili na školske, individualne i vršnjačke čimbenike, odnosno, na: vezanost za školu, planiranje aktivnosti, samokontrolu i korištenje marihuane od strane prijatelja.

Djelovanje na vezanost za školu, moguće je pokušati ostvariti direktno uključivanjem učenika i/ili indirektno uključivanjem nastavnika. Aktivnosti za jačanje vezanosti adolescenata za školu mogu sezati od poticanja motivacije za učenje, pomoći u poboljšanju školskog uspjeha (npr. osiguravanjem vršnjačkog mentora) ili vezivanja za aktivnosti u školi (sport, glazba i sl.), posebno za one koji imaju poteškoće s učenjem pa se mogu teže ostvariti u akademskom smislu. Aktivnosti za nastavnike bi mogle biti u obliku treninga korištenja proaktivnog upravljanja razredom, interaktivnih tehnika i kooperativnih tehnika učenja. Za navedene intervencije se pretpostavlja da mogu povećati mogućnost da učenici postanu više uključeni u aktivnosti u razredu, što bi onda trebalo ojačati njihove veze sa školom (22).

Potencijalno efikasni bi mogli biti programi koji bi tematski uključivali načine suočavanja sa stresom. Educiranje mladih u pogledu usvajanja konstruktivnijih metoda suočavanja sa stresom poput planiranja aktivnosti, prema rezultatima ovog istraživanja također može pomoći.

Školski programi sekundarne prevencije trebali bi nastojati zahvatiti što više rizičnih pojedinaca. Kako je samokontrola rizični čimbenik na koji nije moguće u većoj mjeri direktno djelovati, moguće je izdvojiti pojedince s lošom samokontrolom i tretirati ih kao posebno rizične za razvijanje ozbiljnijih problema s marihuanom. Kod ovih adolescenata je poželjno ojačati zaštitne čimbenike te eliminirati druge rizične čimbenike koje eventualno imaju, a moguće je na njih djelovati putem preventivnih programa. Upitnici koji bi se mogli primjenjivati na početku školske godine na satu razredne nastave, osim što bi utvrđivali stupanj razvijenosti samokontrole, mogli bi mjeriti i ostale potvrđene čimbenike važne za sekundarnu prevenciju marihuane. Na ovaj način bi se mogli identificirati potencijalno rizični pojedinci, ali i oni koji su, barem prema mjerenim čimbenicima, najmanje rizični. Provođenjem programa sekundarne prevencije na skupini učenika formiranoj od ovih rizičnih i nerizičnih pojedinaca izbjeglo bi se etiketiranje rizičnih pojedinaca i potencijalne posljedice negativne selekcije, a otvorile mogućnosti za djelovanje pozitivnih vršnjačkih modela.

Metodološka ograničenja

Provedeno istraživanje ima određena ograničenja. Longitudinalna istraživanja mogu pomoći u razotkrivanju uzročno-posljedičnih odnosa, a ovo je istraživanje bilo jednostavno transverzalno. Pojedine stupnjevite diskriminacijske analize se međusobno razlikuju prema ukupnom broju ispitanika po analizi pa se s većom sigurnošću mogu uzeti u obzir rezultati stupnjevitih diskriminacijskih analiza koje su uključivale veći broj ispitanika po skupinama te pri čemu su skupine bile ujednačenije po broju ispitanika u njima. Ograničenje istraživanja može predstavljati i činjenica kako su neke potencijalno važne prediktorske varijable izostavljene iz istraživanja. U istraživanju se ustvari utvrđuje kako su percepcije adolescenata u pogledu roditeljskog i vršnjačkog ponašanja povezane s korištenjem marihuane. U budućim istraživanjima bi bilo korisno zahvatiti i stvarna roditeljska i vršnjačka ponašanja. Generalizacija nalaza je jednim dijelom ograničena izborom uzorka u istraživanju (dob srednje adolescencije, srednjoškolci iz Mostara).

Zaključak

Varijable koje navodi Model višerazinskog socijalnog učenja, a potvrđene su ovim istraživanjem kao važne za razlikovanje razina ili obrazaca korištenja, su: vezanost za školu, korištenje marihuane od strane prijatelja, pritisak vršnjaka za korištenje marihuana i planiranje aktivnosti. Rezultati ovog istraživanja ukazuju i na važnost

sljedećih varijabli u predviđanju razina korištenja, a koje model direktno ne navodi, a to su: samokontrola i neopravdani izostanci.

Rezultati istraživanja su pokazali kako se međusobno razlikuju prediktori prelaska na pojedini obrazac korištenja marihuane. Jedino su varijable korištenja marihuane od strane prijatelja bile prediktori i za eksperimentalno i za neeksperimentalno (rekreativno i zlouporaba) korištenje. Nalazi u pogledu razlikovanja prediktora rekreativne konzumacije i zlouporabe marihuane su preliminarni i moguća je daljnja razrada modela. Dobivanje uvida u čimbenike koji određuju prelazak iz stadija u stadij važno je za kreiranje programa primarne i sekundarne prevencije ovisnosti.

Reference

1. Newcomb, MD & Felix-Ortiz, M. Multiple protective and risk factors for drug use and abuse: Cross-sectional and prospective findings. J Pers Soc Psychol. 1992; 63: 280-96.
2. Newcomb, MD. Identifying High-Risk Youth: Prevalence and Patterns of Adolescent Drug Abuse. NIDA Research Monograph Series. 1995; 156: 7-38.
3. Pandina, RJ. Risk and Protective Factor Models in Adolescent Drug Use: Putting Them to Work for Prevention. Nida-National Conference on Drug Abuse Prevention Research – Plenary Session 2.; 1996.
   Available from: http://www.drugabuse.gov/MeetSum/CODA/Risk.html
4. Newcomb, MD, Bentler, PM. Substance Use and Abuse Among Children and Teenagers. Am Psychol. 1989; 44 (2): 242-48.
5. Petraitis, J, Flay, BR, Miller, TQ. Reviewing Theories of Adolescent Substance Use: Organizing Pieces in the Puzzle. Psychol Bull. 1995; 117 (1): 67-86.
6. Kaplow, JB, Curran, PJ i Dodge, KA. Child, parent and peer predictors of early-onset substance use: a multisite longitudinal study. J Abnorm Child Psychol. 2002; 30(3): 199-216.
7. Power, TG, Stewart, CD, Huges, SO, Arbona, C. Predicting Patterns of Adolescent Alcohol Use: A longitudinal Study. J Stud Alcohol. 2005; 66(1): 74-81.
8. Dorius, CJ, Bahr, SJ, Hoffmann, JP, Harmon, EL. Parenting Practices as Moderators of the Relationship Between Peer and Adolescent Marijuana Use. J Marriage Fam. 2004; 66: 163-78.
9. Vučina, T. Rizični i protektivni čimbenici za korištenje sredstava ovisnosti u adolescenciji (magistarski rad). Sarajevo: Univerzitet u Sarajevu. 2004.
10. Takšić, V. Upitnici emocionalne inteligencije (kompetentnosti). Zbirka psihologijskih skala i upitnika. Odsjek za psihologiju. Filozofski fakultet u Zadru. 2001.
11. Tangney, JP, Baumeister RF, Boone, AL. High Self-control Predicts Good Adjustment, Less Pathology, Better Grades, and Interpersonal Success. J Pers. 2004; 72 (2): 272-322.
12. Franc, R, Šakić, V, Ivičić, I. Vrednote i vrijednosne orijentacije adolescenata: hijerarhija i povezanost sa stavovima i ponašanjima. Društvena istraživanja Zagreb 58-59 (Mladi Hrvatske – socijalizacija, vrednote, devijacije). 2002; 11 (2-3): 215-38.
13. Lugomer-Armano, G, Kamenov, Ž, Ljubotina, D. Problemi i potrebe mladih u Hrvatskoj. Zagreb: Odsjek za psihologiju Filozofskog fakulteta u Zagrebu i Klub studenata psihologije. 2003.
14. Arcel, LT, Folnegović-Šmalc, V, Tocilj-Šimunković, G, Kozarić-Kovačić, D, Ljubotina, D. Ethnic Cleansing and Post-Traumatic Coping-War Violence, PTSD, Depression,

Anxiety and Coping in Bosnian and Croatian Refugees: A transactional Approach. In: Arcel LT, Tocilj-Šimunković G, editors. War violence, Trauma and the Coping process. Zagreb: Nakladništvo Lumin. 1998. p. 45-78.
15. National Institute on Alcohol Abuse and Alcoholism. Drinking in the United States: Main Findings From the 1992 National Longitudinal Alcohol Epidemiologic Survey (NLAES). U.S. Alcohol Epidemiologic Data Reference Manual (6), 1st ed.; 1998.
16. Raboteg-Šarić, Z, Franc, R, Brajša-Žganec, A. Roditeljski odgojni postupci i psihosocijalni razvoj adolescenata. U: Kaliterna Lipovčan LJ. i Šakić V, urednici. Hrvatsko društvo danas: Psihosocijalni procesi Institut društvenih znanosti Ivo Pilar, Zagreb: Biblioteka-Zbornici; 2004. p. 59-76.
17. Bachman, JG, Johnston, LD i O'Malley, PM. The Monitoring the Future Project after 27 Years: Design and Procedures. Monitoring the Future Occasional Paper (54). Am. Arbor, MI : Institute for Social Research; 2001.
18. Klecka, WR. Discriminant analysis. Sage University Papers on Quantitative Applications in the Social Sciences. USA: Sage Publications, Inc. ; 1985.
19. Vučina, T. Razlikovanje prediktora različitih obrazaca korištenja alkohola. Zbornik radova s II kongresa psihologa Bosne i Hercegovine sa međunarodnim sudjelovanjem. 2012; 349-61.
20. Simons, RL, Robertson, JF. The Impact of Parenting Factors, Deviant Peers, and Coping Style Upon Adolescent Drug Use. Fam Relat. 1989; 38(3): 273-81.
21. Van der Stel, J. Priručnik o prevenciji alkoholizma, narkomanije i pušenja: kako olakšati svakodnevni život preventivnog radnika. Sarajevo. Rabic. 2002.
22. Gorman, DM Etiological theories and the primary prevention of drug use. J Drug Issues. 1996; 26 (2): 505-20.

Prilog 1: Adaptirane mjere za korištenje marihuane iz istraživanja *Moniturіng the Future*

KOLIKO SI PUTA U TOKU CIJELOG ŽIVOTA KORISTIO/LA?

	Niti jednom	1-2 puta	3-5 puta	6-9 puta	10-19 puta	20-39 puta	40 i više puta
MARIHUANA	1	2	3	4	5	6	7

KOLIKO SI PUTA U ZADNJIH 12 MJESECI KORISTIO/LA?

	Niti jednom	1-2 puta	3-5 puta	6-9 puta	10-19 puta	20-39 puta	40 i više puta
MARIHUANA	1	2	3	4	5	6	7

KOLIKO SI PUTA U ZADNJIH 30 DANA KORISTIO/LA?

	Niti jednom	1-2 puta	3-5 puta	6-9 puta	10-19 puta	20-39 puta	40 i više puta
MARIHUANA	1	2	3	4	5	6	7

KAD PUŠIŠ MARIHUANU, KOLIKO DŽOINTA POPUŠIŠ PO PRILICI ZAREDOM?

Ne pušim marihuanu	1 džoint i manje	2 džointa i više
1	2	3

DISTINCTION OF PREDICTORS FOR DIFFERENT CANNABIS USE STAGES

Abstract

Mechanisms that influence the formation of stages in the use of addictive substances are not sufficiently explained yet. **Aim:** This research tries to clarify which factors have a role of predictors for transition on certain cannabis use stages. Multistage social learning model have been used as theoretical base. **Material and methods:** This research includes 834 students of third and fourth grade of secondary schools in Mostar. The sample is stratified concerning religious orientation, type of school and age. Battery tests have been formed for the needs of this research, predictor variables are expressed by shorter scales, and use of cannabis by adapted scale from the research "Monitoring the Future". **Results:** By implementation of stepwise discriminant analysis it is confirmed that predictors for transition from one cannabis use stage to the other are different. Predictors for transition from abstinence to experimental consummation are: peer pressure for cannabis use, cannabis used by friends and unjustified absences. Predictors for transition from experimental to recreational use are: friends who use cannabis, commitment to school and planning of the activities. Friends who use cannabis and self-control are predictors for transition from recreational use to abuse. **Conclusion:** Distinction in factors, which best discriminate different cannabis use stages, has been confirmed. Findings concerning the distinction of predictors for recreational consummation and cannabis abuse are preliminary and further model development is possible.

Key words: risk factors, protective factors, abstinents, cannabis use stages.

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