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Emocionalna uznemirenost i negativne automatske misli učenika tijekom srednjoškolskog obrazovanja

/ Emotional Distress and Negative Automatic Thoughts of Students During Secondary School Education

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Epidemiološka istraživanja bilježe trend porasta teškoća mentalnog zdravlja kod djece i adolescenata. Cilj istraživanja bio je ispitati emocionalnu uznemirenost i negativne automatske misli učenika tijekom srednjoškolskog obrazovanja. Uključena su 204 sudionika, a podatci su prikupljeni upitnikom CORE-YP i Upitnikom automatskih misli za vrijeme učenja u pet vremenskih točaka. Analizirani su deskriptivni podaci i provedena analiza varijance ponovljenih mjerjenja. Nakon prelaska u srednju školu 26,52 % učenika pokazuje povišenu emocionalnu uznemirenost. Pred kraj svake nastavne godine, ovisno o godini obrazovanja, detektira se od 38,07 % do 55,44 % učenika s povišenom emocionalnom uznemirenošću, a za 22,10 % do 26,09 % učenika rezultat je iznimno povišen. Na kraju drugog razreda emocionalna uznemirenost je statistički značajno viša u odnosu na ostale razrede, osim završnoga. Negativne automatske misli i emocionalna uznemirenost visoko su i statistički značajno povezane. Negativne automatske misli povezane sa strahom od neuspjeha i razočaranja roditelja najčešće su na kraju drugog razreda. Učestalost misli povezanih s razočaranjem roditelja tijekom srednje škole opada, dok učestalost misli povezanih s manjom motivacijom za učenje raste. Vrijeme prije završetka drugog razreda srednje škole osobito je rizično za razvoj teškoća mentalnog zdravlja. Stoga upravo tijekom drugog razreda treba realizirati najviše aktivnosti za očuvanje mentalnog zdravlja te provoditi sustavni probir učenika u riziku. Za to mogu koristiti ovdje provjereni upitnici. Dobiveni rezultati sukladni su pretpostavkama kognitivnih modela disfunkcionalnog doživljavanja i ponašanja, u okviru kojih se interpretiraju.

/ Epidemiological research indicates an increasing trend of mental health difficulties in children and adolescents. The aim of the study was to examine emotional distress and negative automatic thoughts of secondary school students. The study was conducted on a sample of 204 respondents and data were collected by the Young Person's CORE (YP-CORE) questionnaire and the Automatic Thoughts Questionnaire during learning at five time points. Descriptive data were analysed and an analysis of variance for repeated measurements was performed. After transferring to secondary school, 26.52% of students showed increased emotional distress. Towards the end of the school year and depending on the year of education, 38.07% to 55.44% of students showed increased emotional distress, whereas 22.10% to 26.09% of students showed exceptionally increased distress. Emotional distress was statistically significantly higher at the end of the second grade than in other grades, except for the final grade. There was a high and statistically significant association between negative automatic thoughts and emotional distress. Negative automatic thoughts associated with the fear of failure and subsequent disappointment of one's parents were most frequently expressed at the end of the second grade. The frequency of thoughts associated with disappointing one's parents during secondary school was declining, while the frequency of thoughts associated with the lack of motivation for studying was increasing. The time before the completion

of the second grade of secondary school is particularly risky for the development of mental health difficulties. Therefore, it is during the second grade that most activities for preservation of mental health should be implemented and a systematic screening of students at risk should be carried out. The questionnaires tested in this study can be used for that purpose. The obtained results are in line with the presumptions of cognitive models of dysfunctional experiences and behaviour in the context of which they have been interpreted.

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UVOD

Adolescencija je zahtjevno razdoblje života zbog niza novih socijalnih uloga te velikih fizičkih i emocionalnih promjena tijekom kojih mladi ljudi prolaze. Razvojno, to je vrijeme ostvarivanja psihološke nezavisnosti od značajnih odraslih, preispitivanja starih vrijednosti i stvaranja novih. Može se reći kako su adolescenti u stalnom procesu prilagođavanja, što nije uvijek lako. Epidemiološka istraživanja pokazuju da 10 % djece i adolescenata do 16 godina ima neki emocionalni poremećaj ili poremećaj ponašanja (1), dok se u dobi od 10 do 19 godina njihov udio povećava na 10 % do 20 % (2,3). U proteklim desetljećima različite zemlje, npr. Grčka, Island, Nizozemska i Švedska, bilježe trend porasta emocionalnih teškoća među adolescentima (1). Iako treba uzeti u obzir različitu metodologiju u prikupljanju podataka, nalazi o povećanju teškoća su konzistentni. Tako Vladin izvještaj o učenicima s psihološkim teškoćama u Walesu (4) navodi kako „u zadnjih desetak godina potreba za savjetovanjem učenika, osobito u srednjim školama, dramatično raste, radi emocionalnih, bihevioralnih i socijalnih problema“. Oko 30 % mlađih u dobi od 16 do 25 godina u

INTRODUCTION

Adolescence is a vulnerable period of life due to a number of new social roles and major physical and emotional changes that young people undergo. In terms of development, adolescence is a time of achieving psychological independence from influential adults, and of questioning old values and creating new ones. It can be said that adolescents are in a constant process of adjustment, which is not always easy. Epidemiological studies show that 10% of children and adolescents under the age of 16 have some sort of emotional or behavioural disorder (1), while for adolescents between the ages of 10 and 19 this proportion increases to 10% to 20% (2,3). In recent decades, different countries, e.g. Greece, Iceland, the Netherlands, and Sweden, have recorded an increasing trend of emotional difficulties among adolescents (1). Although differing methodologies in data collection need to be taken in consideration, the findings on increasing difficulties remain consistent. Thus, the Government's report on students with psychological difficulties in Wales (4) states that “in the last decade, the need for student counselling, especially in secondary schools, has increased dramatically, due

Velikoj Britaniji izvještava da se uvijek ili često osjećaju depresivno ili ozbiljno sniženog raspoloženja (5,6). Teškoće mentalnog zdravlja adolescenata prepoznate su kao javnozdravstveni problem i u drugim europskim zemljama, npr. Norveškoj (7) i Danskoj (8). Istraživanja provedena u Hrvatskoj detektiraju 20 do 30 % adolescenata koji imaju određene psihološke teškoće (9-11), a pojedine su teškoće prisutne i kod više od 30 % učenika (11). Prema procjenama Svjetske zdravstvene organizacije (3) oko polovine teškoća mentalnog zdravlja pojavljuju se do četrnaeste godine života, iako često ostanu neprepoznate. Nedovoljno rano prepoznavanje djece i mladih koji imaju takvih teškoća i izostanak adekvatne pomoći može imati značajne posljedice na njihovo zdravlje tijekom odrastanja, ali i u odrasloj dobi. Škole su prepoznate kao mjesto gdje je lako provediv sustavni probir učenika s povećanim rizikom za razvoj teškoća mentalnog zdravlja. „Stoga škole imaju važno mjesto u ranoj detekciji problema mentalnog zdravlja izvan sustava zdravstvene skrbi.“ (9). Pravodobno prepoznavanje i podrška učenicima s rizikom za razvoj teškoća mentalnog zdravlja može biti značajni zaštitni faktor njihova razvoja. Može doprinijeti uspješnjem školovanju, boljem školskom uspjehu, boljoj poziciji na tržištu rada i očuvanju ukupnog zdravlja (6). Škola je ujedno vrlo važan okolinski sustav u kojem mogu djelovati i rizični čimbenici povezani s razvojem teškoća mentalnog zdravlja. Na primjer, poznato je kako je tranzicija na višu obrazovnu razinu kognitivno i emocionalno zahtjevno razdoblje zbog niza prilagodbi novom školskom kontekstu (12). Međutim, za mnoge učenike, a i njihove roditelje najstresnije je razdoblje završetak nastavne godine. Brojni čimbenici mogu pridonijeti kognitivnoj procjeni kraja nastavne godine kao stresne, osobito količina pisanih i usmenih provjera znanja, ukupno vrednovanje i ocjenjivanje, odnosno evaluacija naučenoga. Iz takve kognitivne procjene proizlazi negativna emocionalna reakcija, odnosno, doživljaj stresa (13). Neka istraživanja povećanje udjela

to emotional, behavioural and social problems". About 30% of young people aged 16 to 25 in the UK report that they feel depressed or severely depressed always or often (5,6). Adolescent mental health problems have been recognized as a public health concern in other European countries as well, e.g. Norway (7) and Denmark (8). Studies conducted in Croatia found that 20 - 30% of adolescents experience some kind of psychological difficulties (9-11), and that certain difficulties are present in more than 30% of students (11). The World Health Organization (3) estimates that about half of mental health difficulties occur by the age of 14, although they are often unrecognized. Insufficient early identification of children and young people who have such difficulties and a lack of adequate care can result in significant consequences on their health during adolescence as well as adulthood. The school is recognized as a setting where it is not difficult to implement a systematic screening of students who are at increased risk of developing mental health difficulties. "Therefore, schools play an important role in early detection of mental health problems outside the health care system" (9). Timely recognition and support to students at risk of developing mental health difficulties can be an important protective factor for their development. Also, it can contribute to more successful schooling, better school results, better prospects in the labour market and the preservation of overall health (6). The school is also a very important environmental system where risk factors related to the development of mental health difficulties might also be at play. For example, transition to a higher educational level is known to be a cognitively and emotionally demanding time because it implies various adaptations to a new school context (12). However, for many students, as well as their parents, the most stressful period is the end of the school year. Numerous factors can contribute to a cognitive appraisal of the end of the school year as stressful, especially the amount of written and oral tests, overall evaluation and assessment of what has been learned. Such cognitive apprais-

adolescenata s teškoćama mentalnog zdravlja povezuju upravo s činjenicom da zahtjevi unutar školskog konteksta, osobito vezani uz zahtjevnost školskih ispitivanja i očekivanja uspješnosti, postaju za mlade ljude sve veći stresori (14). U literaturi se čak spominje „hipoteza edukacijskih stresora“ koja povezuje događaje i situacije važne za ostvarivanje školskog uspjeha, uspješnost polaganja ispita i emocionalnog stanja adolescenata (14). Negativne ili nepravedne ocjene i učenici hrvatskih škola percipiraju kao najveći izvor stresa unutar školskog konteksta (15). Stresna reakcija uključuje fiziološki, emocionalni i ponašajni odgovor na situaciju koju osoba procjenjuje kao prijeteću. Kognitivna procjena situacije kao prijeteće pokretač je stresnih reakcija, pa dovodi i do pojave neugodnih emocionalnih reakcija poput anksioznosti, iritabilnosti, povišene razine emocionalne napetosti i sl. Dio kognitivne procjene su i automatske misli koje su ujedno i središnji konstrukt kognitivnih modela psihopatologije poput Beckovog modela (16). Kognitivni modeli naglašavaju ometajući utjecaj negativnih misli na raspoloženje i ponašanje. Postoji recipročna povezanost između negativnih misli i emocionalnih teškoća, što se može aktualizirati u situacijama koje od učenika zahtijevaju veće napore poput kraja nastavne godine. Kod dijela adolescenata, nesigurnih u vlastito znanje i sposobnosti, mogu se pojavljivati negativne misli povezane s procjenom nedovoljnih osobnih kapaciteta za svladavanje gradiva, mogući neuspjeh, značenje neuspjeha za odnos s roditeljima i sl. Negativne automatske misli i teškoće u svladavanju gradiva pridonose razini opće emocionalne uzremirenosti što može pospešiti razvoj emocionalnih poremećaja. Stoga je u potencijalno stresnim razdobljima, poput kraja nastavne godine, posebno važno pratiti emocionalne i kognitivne aspekte funkciranja učenika. Cilj rada bio je ispitati razinu opće emocionalne uzremirenosti i učestalost negativnih automatskih misli za vrijeme učenja u pet vremenskih točaka tijekom srednje škole,

als result in a negative emotional response, i.e. the experience of stress (13). Some studies have linked the increase in the proportion of adolescents with mental health difficulties to the fact that school requirements, especially those related to complex school examinations and expectations of a successful outcome, are becoming increasingly stressful for young people (14). The literature has also mentioned the “educational stressors hypothesis” that links events and situations important for achieving success in school, exam performance, and the emotional state of adolescents (14). Croatian students perceive negative or unfair grades as the most important source of stress within the school context (15). A stress response includes a physiological, emotional, and behavioural response to a situation that a person perceives as threatening. A situation that is cognitively assessed as threatening triggers stress reactions and leads to unpleasant emotional reactions such as anxiety, irritability, elevated levels of emotional tension, and others. Automatic thoughts are part of cognitive assessment and the central construct of cognitive models of psychopathology, such as the Beck's model (16). Cognitive models emphasize the disruptive impact of negative thoughts on mood and behaviour. There is a reciprocal association between negative thoughts and emotional difficulties, which can become apparent in situations that require more effort from students, the end of the school year being such a situation. Some adolescents, who lack confidence in their own knowledge and abilities, may experience negative thoughts related to their assessment of insufficient personal capacity to master the material, possible failure, implications of failure on the relationship with their parents, etc. Negative automatic thoughts and difficulties in mastering the material contribute to the level of general emotional distress, which can promote the development of emotional disorders. Therefore, it is especially important to monitor the emotional and cognitive aspects of the way students function during potentially stressful periods, such as

istražiti koliko učenika ima značajno povišenu razinu emocionalne uznenamirenosti te provjeriti postoje li u tome statistički značajne razlike ovisno o godini obrazovanja. U skladu s ciljem postavljene su istraživačke hipoteze. Očekuje se 20-30 % sudionika koji će imati značajno povišenu razinu emocionalne uznenamirenosti i negativnih automatskih misli. Emocionalna uznenamirenost i negativne automatske misli za vrijeme učenja bit će statistički značajno povezane. Na kraju drugog razreda srednje škole opća emocionalna uznenamirenost i izraženost negativnih automatskih misli bit će statistički značajno viša u odnosu na ostale točke mjerena.

METODE

Sudionici i postupak istraživanja

Sudjelovalo je ukupno 204 učenika srednje strukovne škole, od kojih je bilo 168 (82,4 %) djevojaka i 36 (17,6 %) mladića. Broj sudionika razlikovao se ovisno o točki mjerena zbog izostanka na dan prikupljanja podataka, promjene škole i sl. (tablica 1).

Podatci iz svih pet mjerena prikupljeni su za 133 sudionika. Sudionici su bili iz različitih mjesta i gradova i iz više kontinentalnih županija Hrvatske. Prikupljanje podataka provedeno je uz suglasnost ravnatelja i usmeni

the end of the school year. The aim of the present study was to examine the level of general emotional distress and frequency of negative automatic thoughts during learning at five time points during secondary education, to investigate how many students have significantly increased levels of emotional distress and whether there are statistically significant differences depending on the school grade. The study hypotheses were formulated in line with this aim. Twenty to thirty per cent of participants are expected to have a significantly elevated level of emotional distress and negative automatic thoughts. Emotional distress and negative automatic thoughts during learning are expected to be statistically significantly related. At the end of the second grade of secondary school, the general emotional distress and expression of negative automatic thoughts are expected to be statistically significantly higher than at other measurement points.

7

METHODS

Participants and methods

Of the total of 204 vocational school students, 168 (82.4%) were girls and 36 (17.6%) were boys. The number of participants differed depending on the measurement point due to absence on the day of data collection, change of schools, etc. (Table 1).

For 133 participants, data from all five measurements were collected. Participants came from various towns and cities and several continental Croatian counties. Data collection was conducted with the consent of the principals and the oral consent of the parents obtained at parent meetings. At each measurement point, students were briefly informed about the purpose of data collection and given instructions on how to answer the questionnaires. The questionnaires were administered during regular classes and it took 20 minutes on average for the students to complete them. Students were also informed that individual protocols and re-

TABLICA 1. Broj sudionika po vremenskim točkama istraživanja

TABLE 1. Number of study participants at different measurement points

Točka mjerena / Measurement point	n
Prva (mjesec dana nakon početka prvog razreda) / First (one month after the beginning of the first grade)	181
Druga (tri tjedna prije kraja prvog razreda) / Second (three weeks before the end of first grade)	176
Treća (tri tjedna prije kraja drugog razreda) / Third (three weeks before the end of second grade)	184
Četvrta (tri tjedna prije kraja trećeg razreda) / Fourth (three weeks before the end of third grade)	181
Peta (tri tjedna prije kraja četvrtog razreda) / Fifth (three weeks before the end of fourth grade)	165

pristanak roditelja na roditeljskim sastancima. Učenicima je ukratko objašnjena svrha prikupljanja podataka te im je pri svakoj primjeni upitnika dana uputa o načinu odgovaranja. Primjena upitnika trajala je prosječno dvadesetak minuta, a provodila se za vrijeme redovne nastave. Učenicima je objašnjeno da individualne protokole i rezultate neće vidjeti nitko osim školskog psihologa i njih samih tijekom individualnih kontakata kao dijela redovnog postupka probira. Prvo mjerjenje provedeno je mjesec dana nakon početka nastavne godine, a ostala mjerjenja tri tjedna prije kraja svake nastavne godine.

Mjerni instrumenti

CORE-YP upitnik (17) koristi se za procjenu razine opće emocionalne uznenirenosti („*distress*“) mladih od 11 do 16 godina, ali se može koristiti i u širem rasponu dobi. Preveden je na hrvatski jezik s odobrenjem i prema protokolu *The CORE System Trust*. Sastoji se od 10 tvrdnji koje opisuju određeno raspoloženje ili stanje. Sudionik/ca odgovara na pitanje: Koliko si se puta tako osjećao/la tijekom proteklog tjedna? odabirom jednog od ponuđenih odgovora na ljestvici od 5 stupnjeva (0 - nikad, 1 - vrlo rijetko, 2 - ponekad, 3 - često, 4 - gotovo uvijek). Ukupan rezultat izražen je kao zbroj odgovora na sve česticama. Prethodno se mijenja smjer odgovora na tri čestice prema ključu za odgovore. Veći rezultat znači višu razinu emocionalne uznenirenosti. Budući da je faktorska struktura upitnika poznata, za potrebe ovog istraživanja nije posebno provjeravana. Prethodna istraživanja potvrđuju da je upitnik visoko pouzdan s indeksima pouzdanosti tipa Cronbach alpha od .78 do .90 (5, 6, 18-21), a visoki indeksi pouzdanosti dobiveni su i u ovom istraživanju (od .83 do .89; tablica 2).

Upitnik automatskih misli za vrijeme učenja (22) sastoji se od 48 opisa različitih misli. Sudionik/ca odgovara na pitanje o učestalosti pojavljivanja pojedinih misli u proteklom tjednu na

sults would not be disclosed to anyone other than the school psychologist and themselves during individual contacts as part of the regular screening process. The first measurement was conducted one month after the beginning of the school year, and the other measurements three weeks before the end of each school year.

Measuring instruments

The YP-CORE questionnaire (17) was administered to assess the level of general emotional distress among young people aged 11 to 16, but it can also be administered in those below and above this age range. It was translated into Croatian and approved according to the CORE System Trust protocol. The questionnaire consists of 10 statements describing a particular mood or condition. The participant answers the question “How often did you feel that way during the past week?” by rating it on a 5-point scale (0 - not at all, 1 - only occasionally, 2 - sometimes, 3 - often, 4 - most or all of the time). The total score is expressed as the sum of all responses for all categories. The direction of three items is changed in advance according to a key. A higher score is interpreted as a higher level of emotional distress. Having in mind that the factor structure of the questionnaire is known, and it was not specifically investigated for the purposes of this study. Previous research has confirmed that the questionnaire is highly reliable, with Cronbach's alpha reliability indices ranging from .78 to .90 (5, 6, 18-21). High reliability indices were also obtained for this study (from .83 to .89; see Table 2).

The Automatic Thoughts during Learning Questionnaire (22) consists of 48 descriptions of different thoughts. The participant answers the question about the frequency of occurrence of certain thoughts over the last week on a 4-point scale (0 - never or almost never, 1 - sometimes or rarely, 2 - often, 3 - very often or almost constantly). The factor structure of the questionnaire had to be investigated as no results have been published so far for secondary school students. In the correlation matrix of the inputs, there were

ljestvici od 4 stupnja (0 - nikad ili gotovo nikad, 1 - ponekad ili rijetko, 2 - često, 3 - vrlo često ili gotovo stalno). Kako do sada nema objavljenih rezultata koje na ovome upitniku postižu srednjoškolci, provjerena je njegova faktorska struktura. U korelacijskoj matrici rezultata bilo je mnogo koeficijenata većih od .30, vrijednost KMO (Kaiser-Meyer-Olkin) pokazatelja bila je .86, a Bartlettov test sfericiteta bio je statistički značajan (4130,57, df=1128, p<.01). Podatci ukazuju na opravdanost provedbe faktorske analize. Konfirmatorna analiza glavnih komponenti identificirala je karakteristične vrijednosti četiri glavna faktora znatno veće od 1 (11,91; 4,50; 2,96; 2,05), koji zajedno objašnjavaju 44,64 % ukupne varijance. Doprinos prve komponente je 24,82 %, druge 9,38 %, treće 6,16 %, a četvrte 4,28 %. Oblimin rotacija za provjeru strukture komponenti potvrdila je visoku podudarnost s prethodnim mjeranjima provedenima s učenicima osnovne škole i studentima (22,23). Temeljem faktorske strukture formirane su 4 podljestvice: Strah od neuspjeha (20 čestica), Strah od razočaranja roditelja (8 čestica), Manjak motivacije za učenje (7 čestica) i Pozitivne misli (13 čestica). Rezultati za podljestvicu Pozitivne misli nisu predmet ovoga rada te neće biti prikazivani. Rezultat na svakoj podljestvici dobiven je kao linearni zbroj odgovora na odgovarajućim česticama podljestvice, a veći rezultat znači veću učestalost tih misli. Pouzdanost podljestvica vrlo je visoka, a indeksi pouzdanosti tipa Cronbach alpha su od .83 do .94 (tablice 3, 4 i 5).

REZULTATI

Izračunati su osnovni deskriptivni podatci i podatci o izgledu raspodjela rezultata (tablica 2, 3, 4 i 5). Iz tablice 2 vidljivo je kako se rezultati na upitniku CORE-YP raspodjeljuju u manjem dijelu mogućeg raspona, što je očekivano s obzirom da se radi o nekliničkoj skupini

many coefficients greater than .30, the value of the Kaiser-Meyer-Olkin (KMO) index was .86, and the Bartlett's test for sphericity value revealed statistical significance (4130.57, df = 1128, p < .01). The data justified the use of factor analysis. A confirmatory principal component analysis showed that characteristic values for the four major factors were significantly greater than 1 (11.91; 4.50; 2.96; 2.05), the combination of which explained 44.64% of the total variance. The first component has contributed with 24.82%, the second with 9.38%, the third with 6.16%, and the fourth with 4.28%. Oblimin rotation was performed to verify the structure of the components and it confirmed a high concordance with previous measurements conducted with primary school students and university students (22,23). On the basis of factor structure, four subscales were formed: Fear of Failure (20 items), Fear of Disappointing One's Parents (8 items), Lack of Motivation to Learn (7 items) and Positive Thoughts (13 items). The results for the Positive Thoughts subscale are not the subject of this paper and shall not be presented here. The result for each subscale was a linear sum of scores on the corresponding subscale items, with higher score indicating a higher frequency of such thoughts. The subscales are highly reliable, with the Cronbach's alpha reliability indices ranging from .83 to .94 (Tables 3, 4 and 5).

RESULTS

Basic descriptive data and data on the score distributions were calculated (Tables 2, 3, 4 and 5). Table 2 shows that the YP-CORE questionnaire scores are distributed in a smaller part of the range, as expected, given that this was a non-clinical group of participants. The arithmetic means of the scores obtained in all time points range between 10.50 and 16.06. Data on the asymmetry and flatness of distributions and normality checks show that there are no statistically significant deviations from the normal distribution at any of the measurement points.

TABLICA 2. Osnovni deskriptivni podatci, podatci o raspodjeli rezultata i udio sudionika s rezultatima većim ili jednakim 15 i 20 za CORE-YP upitnik

TABLE 2. Basic descriptive data, data on score distributions and proportion of participants scoring ≥ 15 and ≥ 20 on the YP-CORE questionnaire

	Točka mjerjenja / Measurement point				
	Prvo mjerjenje / First measurement	Drugo mjerjenje / Second measurement	Treće mjerjenje / Third measurement	Četvrto mjerjenje / Fourth measurement	Peto mjerjenje / Fifth measurement
M	10,50	12,93	16,06	13,64	14,50
SD	5,98	6,28	7,77	6,88	7,15
TR	0-40	0-40	0-40	0-40	0-40
OR	0-25	1-28	1-35	1-31	2-33
K-S	1,06	1,14	1,02	1,25	0,86
Asimetrija / Asymmetry	-0,59	-0,42	-0,59	-0,67	-0,29
Spljoštenost / Flatness	0,38	0,43	0,32	0,35	0,41
α	.83	.84	.89	.87	.88
≥ 15	48 (26,52 %)	67 (38,07 %)	102 (55,44 %)	83 (45,86 %)	77 (46,67 %)
≥ 20	34 (18,78 %)	42 (23,86 %)	48 (26,09 %)	40 (22,10 %)	37 (22,42 %)

K-S= Kolmogorov- Smirnov test normaliteta raspodjele; TR= teorijski raspon rezultata; OR= opaženi raspon rezultata; α = indeks pouzdanosti Cronbach alpha; ≥ 15 i ≥ 20 = broj i postotak rezultata većih ili jednakih 15 i 20
 / KS = Kolmogorov-Smirnov test for normality; TR = theoretical range of scores; OR = observed range of results; α = Cronbach's alpha reliability index; ≥ 15 and ≥ 20 = number and percentage of results greater than or equal to 15 and 20

sudionika. Aritmetičke sredine rezultata u svim primjenama su između 10,50 i 16,06. Podaci o asimetričnosti i spljoštenosti raspodjela i provjera normalnosti pokazala je da nema statistički značajnog odstupanja od normalne raspodjele ni u jednoj točki mjerjenja. Udio učenika koji imaju povišeni rezultat ≥ 15 pokazuje trend porasta, a najmanji je u prvoj mjerjenju. U trećem mjerjenju 55,44 % učenika ima povišen rezultat, nakon čega udio tih učenika opada i stabilizira se tijekom četvrtog i petog mjerjenja, ali je i dalje visok. Izračunat je i udio učenika koji imaju rezultat jednak ili veći od 20. Rezultat ≥ 20 pokazuje relativno ujednačen udio učenika, od 22,10 do 26,09 %, dok ih je u prvoj mjerenu nešto manje.

Aritmetičke sredine rezultata na podjeljivici Strah od neuspjeha raspodjeluju se u gotovo čitavom teorijskom rasponu, a raspodjela ne odstupa statistički značajno od normalne raspodjele (tablica 3). Misli povezane sa strahom od neuspjeha najčešće su u trećoj točki mjerjenja ($M = 25,67$).

The share of students with increased score ≥ 15 shows an upward trend and was the lowest in the first measurement. In the third measurement, 55.44% of students had an elevated score, after which the share of these students decreased and stabilized in the fourth and fifth measurements, but still remained high. The share of students with a score ≥ 20 was also calculated. The result ≥ 20 indicates a relatively consistent share of students, ranging from 22.10 to 26.09%, with a slightly lower share in the first measurement.

The arithmetic means of the Fear of Failure subscale scores are distributed almost equally over the entire theoretical range, and the distribution does not deviate statistically significantly from the normal distribution (Table 3). Thoughts associated with fear of failure were most frequent at the third measurement point ($M = 25.67$).

The scores on the Fear of Disappointing One's Parents subscale were highest in the third measurement ($M = 5.83$). Until that point, they were distributed over the larger part of the possible range, and after the third measure-

TABLICA 3. Osnovni deskriptivni podatci i podaci o raspodjeli rezultata za podljestvicu Strah od neuspjeha
TABLE 3. Basic descriptive data and data on score distributions on Fear of Failure subscale

	Točka mjerjenja / Measurement point				
	Prvo mjerjenje / First measurement	Drugo mjerjenje / Second measurement	Treće mjerjenje / Third measurement	Četvrto mjerjenje / Fourth measurement	Peto mjerjenje / Fifth measurement
M	18,44	21,41	25,67	21,11	22,33
SD	9,59	10,71	11,84	10,52	11,18
TR	0-60	0-60	0-60	0-60	0-60
OR	1-55	0-53	2-57	3-51	1-53
K-S	1,36	1,26	0,99	1,21	0,96
Asimetrija / Asymmetry	0,89	0,56	0,46	0,59	0,53
Spljoštenost / Flatness	1,08	0,06	-0,17	-0,11	-0,08
α	.92	.93	.94	.93	.94

K-S= Kolmogorov- Smirnov test normaliteta raspodjele; TR= teorijski raspon rezultata; OR= opaženi raspon rezultata; α= indeks pouzdanosti Cronbach alpha / KS = Kolmogorov-Smirnov test for normality; TR = theoretical range of scores; OR = observed range of results; α = Cronbach's alpha reliability index

Rezultati na podljestvici Strah od razočara-ja roditelja najviši su u trećem mjerenuju (M= 5.83). Do tada se raspodjeljuju u većem dije-ku mogućeg raspona, a nakon trećeg mjerenuju raspon rezultata i prosječne vrijednosti se smanjuju. Raspodjela rezultata se značajno razlikuje od normalne (tablica 4). Suprotan trend promjene aritmetičkih sredina pokazuju rezultati na podljestvici Manjak motivacije za učenje (tablica 5). Učestalosti ovih misli raste s najvišom prosječnom vrijednošću u petom mjerenuju (M= 12,23). U prvoj i drugoj primjeni raspodjela rezultata statistički se značajno razlikuje od normalne.

Većina rezultata raspodjeljuje se u skladu s nor-malnom raspodjelom, asimetričnost i spljošte-nost krivulja koje se razlikuju od normalne su u okviru prihvatljivih vrijednosti (indeks asi-metričnosti u rasponu ± 3 , indeks spljoštenosti u rasponu ± 10 ; prema 24) te se rezultati mogu analizirati parametrijskim postupcima.

Na rezultatima 133 sudionika, među kojima je bilo 98 (73,68 %) djevojaka i 35 (26,32 %) mla-dića i koji su sudjelovali u svim točkama mjere-nja, izračunate su korelacije rezultata za sve ko-rištene mjere u svim točkama mjerena (tablica 6). Povezanost emocionalne uznenirenosti i

ment, the range of results and average values decrease. The distribution of results differs significantly from the normal distribution (Table 4). The Lack of Motivation subscale scores indicate an opposite trend regarding the change of arithmetic means (Table 5). The frequency of these thoughts increases with the highest average value in the fifth measurement ($M = 12.23$). In the first and second application of the ques-tionnaire, the distribution of results differed statistically significantly from the normal one.

Most scores are distributed according to the normal distribution, and the asymmetry and flatness of curves that differ from the normal are within the acceptable range (the asymmetry index in the range ± 3 , the flatness index in the range ± 10 ; according to 24). Thus, the results can be analysed using parametric procedures.

Based on the scores for 133 participants, where 98 (73.68%) were girls and 35 (26.32%) were boys who participated at all measurement points, the score correlations were calculated for all measures used at all measurement points (Ta-ble 6). The link between emotional distress and fear-of-failure-related thoughts measured by the Pearson correlation coefficient is statistically significant and high at all measurement points

TABLICA 4. Osnovni deskriptivni podatci i podatci o raspodjeli rezultata za podjesticvicu Strah od razočaranja roditelja
TABLE 4. Basic descriptive data and data on score distributions on Fear of Disappointing One's Parents subscale

	Točka mjerena / Measurement point				
	Prvo mjerjenje / First measurement	Drugo mjerjenje / Second measurement	Treće mjerjenje / Third measurement	Četvrto mjerjenje / Fourth measurement	Peto mjerjenje / Fifth measurement
M	4,83	5,00	5,83	3,64	3,64
SD	4,63	5,27	5,74	4,30	4,16
TR	0-24	0-24	0-24	0-24	0-24
OR	0-24	0-22	0-23	0-19	0-18
K-S	2,41*	2,33*	2,13*	2,93*	2,88*
Asimetrija / Asymmetry	1,14	1,37	1,10	1,51	1,49
Spljoštenost / Flatness	1,21	1,40	0,44	1,82	1,61
α	.86	.90	.90	.89	.89

K-S = Kolmogorov-Smirnov test normaliteta raspodjele; *p<.05; TR = teorijski raspon rezultata; OR = opaženi raspon rezultata; α = indeks pouzdanosti Cronbach alpha / KS = Kolmogorov-Smirnov test for normality; *p <.05; TR = theoretical range of results; OR = observed range of results; α = Cronbach's alpha reliability index

TABLICA 5. Osnovni deskriptivni podatci i podatci o raspodjeli rezultata za podjesticvicu Manjak motivacije za učenje
TABLE 5. Basic descriptive data and data on score distributions on Lack of Motivation to Learn subscale

	Točka mjerena / Measurement point				
	Prvo mjerjenje / First measurement	Drugo mjerjenje / Second measurement	Treće mjerjenje / Third measurement	Četvrto mjerjenje / Fourth measurement	Peto mjerjenje / Fifth measurement
M	7,94	10,03	11,58	11,38	12,23
SD	4,04	4,36	4,37	4,66	4,50
TR	0-21	0-21	0-21	0-21	0-21
OR	0-19	0-21	0-21	0-21	1-21
K-S	1,65*	1,82*	1,33	1,07	1,14
Asimetrija / Asymmetry	0,45	0,34	0,07	-0,05	0,03
Spljoštenost / Flatness	-0,35	-0,41	-0,37	-0,64	-0,59
α	.83	.82	.82	.87	.86

K-S = Kolmogorov-Smirnov test normaliteta raspodjele; *p<.05; TR = teorijski raspon rezultata; OR = opaženi raspon rezultata; α = indeks pouzdanosti Cronbach alpha / KS = Kolmogorov-Smirnov test for normality; *p <.05; TR = theoretical range of results; OR = observed range of results; α = Cronbach's alpha reliability index

misli vezanih za strah od neuspjeha mjerena Pearsonovim koeficijentom korelacije statistički je značajna i visoka u svim točkama mjerjenja ($r=.65$ do $.73$; $p<.01$). Povezanost emocionalne uznenirenosti i misli vezanih uz strah od razočaranja roditelja je također statistički značajna i srednje visoka ($r= .42$ do $.54$; $p<.01$), kao i povezanost emocionalne uznenirenosti i misli vezanih za nemotiviranost za učenje ($r=.38$ do $.54$; $p<.01$).

($r = .65$ to $.73$; $p <.01$). The correlation between emotional distress and thoughts related to fear of disappointing one's parents is also statistically significant and moderately high ($r = .42$ to $.54$; $p <.01$) as well as the correlation between emotional distress and thoughts related to lack of motivation to learn ($r = .38$ to $.54$; $p <.01$). One-factor analyses of variance of repeated measurements and post-hoc analyses with Bonferroni correction were performed. For the YP-CORE

TABLICA 6. Intercorrelacije za varijable emocionalna uznemirenost, misli vezane uz strah od neuspjeha, misli vezane uz strah od razočaranja roditelja i misli vezane uz manjak motivacije za učenje u pet točaka mjerjenja (n=133)

TABLE 6. Inter-correlations for variables of emotional distress, thoughts related to fear of failure, thoughts related to fear of disappointing one's parents and thoughts related to the lack of motivation to learn at five measurement points (n=133)

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.
1.CO1																				
2.CO2	.52 **																			
3.CO3	.47 **	.63 **																		
4.CO4	.40 **	.63 **	.63 **																	
5.CO5	.28 *	.36 **	.59 **	.68 **																
6.SON1	.65 **	.44 **	.35 **	.29* **	.22* **															
7.SON2	.39 **	.70 **	.48 **	.45 **	.27 *	.53 **														
8.SON3	.45 **	.56 **	.73 **	.55 **	.44 **	.57 **	.70 **													
9.SON4	.44 **	.56 **	.63 **	.73 **	.54 **	.42 **	.55 **	.72 **												
10.SON5	.36 **	.34 **	.52 **	.52 **	.68 **	.41* **	.40 **	.64 **	.68 **											
11.SOR1	.54 **	.28* **	.22* **	.23* **	.25* **	.51 **	.19 **	.27* **	.20* **	.34 **										
12.SOR2	.33 **	.42 **	.21* **	.28* **	.23* **	.30 **	.40 **	.18 **	.23 **	.30 **	.54 **									
13.SOR3	.42 **	.35 **	.43 **	.40 **	.32 **	.27* **	.26* **	.44 **	.44 **	.38 **	.57 **	.55 **								
14.SOR4	.21* **	.33 **	.29* **	.45 **	.27* **	.18 **	.15 **	.23* **	.46 **	.24* **	.36 **	.40* **	.68 **							
15.SOR5	.19 **	.17 **	.27* **	.34 **	.44 **	.11 **	.12 **	.18 **	.34 **	.49 **	.44 **	.49 **	.60 **	.59 **						
16.MMU1	.38 **	.35 **	.20* **	.20* **	.09 **	.57 **	.41 **	.32 **	.30 **	.25* **	.28* **	.21* **	.09 **	.11 **	.14 **					
17.MMU2	.31 **	.47 **	.30 **	.23* **	.19 **	.39 **	.66 **	.38 **	.37 **	.25* **	.09 **	.28* **	.13 **	.05 **	.08 **	.59 **				
18.MMU3	.29* **	.39 **	.40 **	.37 **	.34 **	.31 **	.48 **	.59 **	.48 **	.41 **	.19 **	.23* **	.40 **	.20* **	.18 **	.40 **	.56 **			
19.MMU4	.26* **	.38 **	.44 **	.54 **	.39 **	.25* **	.36 **	.44 **	.64 **	.36 **	.11 **	.13 **	.29* **	.31 **	.26* **	.39 **	.50 **	.62 **		
20.MMU5	.23* **	.30 **	.36 **	.38 **	.48 **	.27* **	.29 **	.43 **	.48 **	.66 **	.25* **	.22* **	.29* **	.18 **	.39 **	.36 **	.45 **	.59 **	.60 **	

CO1-C05 = emocionalna uznemirenost u pet točaka mjerjenja; SON1-SO5 = Misli povezane sa strahom od neuspjeha u pet točaka mjerjenja; SOR1-SOR5 = Misli povezane sa strahom od razočaranja roditelja u pet točaka mjerjenja; MMU1-MMU5 = Misli povezane s manjkom motivacije za učenje u pet točaka mjerjenja; ** p<.01; *p<.05
/ CO1-C05 = emotional distress at five measurement points; SON1-SO5 = Thoughts related to fear of failure at five measurement points; SOR1-SOR5 = Thoughts related to fear of disappointing one's parents at five measurement points; MMU1-MMU5 = Thoughts related to the lack of motivation to learn at five measurement points; ** p<.01; *p<.05

Provedene su jednofaktorske analize varijance ponovljenih mjerjenja te *post-hoc* analize uz korekciju Bonferroni. Za upitnik CORE-YP Wilksova lambda = 0,65; F(4,129) = 15,94, p< .01, uz Eta² = 0,35. *Post-hoc* analize pokazuju da su učenici imali statistički značajno nižu razinu emocionalne uznemirenosti u

questionnaire Wilks' lambda was 0.65; F (4,129) = 15.94, p <.01 with Eta² = 0.35. Post-hoc analyses indicate that students had a statistically significantly lower level of emotional distress in the first measurement than in other measurements. The highest level of emotional distress was found in the third measurement, and it was statistically

prvome mjerenu u odnosu na ostala. Najviša razina emocionalne uznemirenosti je u trećem mjerenu i to statistički značajno viša u odnosu na prvo, drugo i četvrto mjerenu. Nema statistički značajne razlike u odnosu na peto mjerenu. Za podljestvicu Strah od neuspjeha Wilksova lambda = 0,64; F(4,129) = 15,69, p<.01, uz Eta² = 0,36. Automatske misli vezane uz strah od neuspjeha statistički su značajno najčešće u trećem mjerenu u odnosu na ostala mjerena. Ove su misli značajno češće i u petom mjerenu u odnosu na prvo. Za podljestvicu Strah od razočaranja roditelja Wilksova lambda = 0,73; F(4,129) = 11,74, p<.01, uz Eta² = 0,27. Misli vezane uz strah od razočaranja roditelja najmanje se pojavljaju u petom mjerenu. Razlika je statistički značajna u odnosu na prvo, drugo i treće mjerene. Statistički je značajno manje ovakvih misli i u četvrtom nego u trećem mjerenu. Za podljestvicu manjak motivacije za učenje Wilksova lambda = 0,57; F (4,129) = 22,90, p<.01, uz Eta² = 0,43. Misli vezane uz nemoćiviranost za učenje pojavljuju se statistički značajno manje u prvom mjerenu u odnosu na ostala, te u drugom mjerenu u odnosu na treće, četvrto i peto. Sve prethodno navedene razlike statistički su značajne uz p<.05. Izra-

significantly higher than in the first, second and fourth measurements. There was no statistically significant difference between the third and fifth measurement. For the Fear of Failure subscale, Wilks' lambda was 0.64; F (4,129) = 15.69, p <.01 with Eta² = 0.36. Automatic thoughts related to fear of failure were statistically significantly more common in the third measurement than in other measurements. These thoughts were significantly more expressed in the fifth than in the first measurement. In Fear of Disappointing One's Parents subscale, Wilks' lambda was 0.73; F (4,129) = 11.74, p <.01 with Eta² = 0.27. Thoughts related to the fear of disappointing one's parents were least expressed in the fifth measurement. The difference was statistically significant when the fifth measurement was compared with the first, second and third measurements. These thoughts were statistically significantly less pronounced in the fourth than in the third measurement. In Lack of Motivation to Learn subscale, Wilks' lambda was 0.57; F (4,129) = 22.90, p <.01 with Eta² = 0.43. Thoughts related to lack of motivation to learn were found to be statistically significantly less expressed in the first measurement compared to other measurements. They were also less expressed in the second measurement than in the third, fourth and fifth measurements.

TABLICA 7. Osnovni deskriptivni podatci i rezultati ANOVA-e ponovljenih mjerena (n=133)
TABLE 7. Basic descriptive data and ANOVA results of repeated measurements (n = 133)

	Točka mjerena / Measurement point										ANOVA ponovljenih mjerena / ANOVA repeated measurements			
	Prvo mjerene / First measurement		Drugo mjerene / Second measurement		Treće mjerene / Third measurement		Četvrto mjerene / Fourth measurement		Peto mjerene / Fifth measurement		Wilksova lambda / Wilks' lambda	Eta ²	značajne razlike / significant differences	
	M	SD	M	SD	M	SD	M	SD	M	SD				
CORE-YP / YP-CORE	10,61	5,89	12,25	5,57	15,53	7,60	13,32	6,83	14,07	6,98	15,94**	0,65	0,35	M _{1,2} *; M _{1,3} *; M _{1,4} *; M _{1,5} * M _{3,2} ; M _{3,4}
Strah od neuspjeha / Fear of failure	18,35	8,81	20,56	9,65	25,00	11,94	19,51	9,76	21,21	10,42	15,69**	0,64	0,36	M _{3,1} *; M _{3,2} *; M _{3,4} *; M _{3,5} * M _{2,1}
Strah od razočaranja roditelja / Fear of disappointing one's parents	4,82	4,49	4,66	4,78	5,83	5,63	3,72	4,30	3,34	3,86	11,74**	0,73	0,27	M _{3,1} *; M _{3,2} *; M _{3,3} * M _{3,2}
Manjak motivacije za učenje / Lack of motivation to learn	7,96	3,83	9,60	4,19	11,23	4,26	10,96	4,56	11,90	4,40	22,90**	0,57	0,43	M _{1,2} *; M _{1,3} *; M _{1,4} *; M _{1,5} * M _{2,3} ; M _{2,4} ; M _{2,5}

**p<.01; *p<.05

čunati indeksi Eta² (od 0,27 do 0,43) ukazuju na statistički značajan efekt točke mjerena (24).

15

RASPRAVA

Cilj provedenog istraživanja bio je ispitati razinu opće emocionalne uznenirenosti i učestalost negativnih automatskih misli za vrijeme učenja tijekom srednje škole, istražiti koliko učenika ima povišenu razinu emocionalne uznenirenosti te provjeriti postoje li u tome statistički značajne razlike ovisno o godini obrazovanja. U skladu s rezultatima prethodnih istraživanja i dostupne literature, kao i činjenice da je većina sudionika bila ženskog spola, očekivali smo 20-30 % sudionika sa značajno povišenim rezultatom na ljestvici emocionalne uznenirenosti, što su rezultati potvrđili. Na osnovi poznavanja razvojnih karakteristika i dinamike adolescencije te praktičnog iskustva u radu s adolescentima, najvišu razinu emocionalne uznenirenosti i negativnih automatskih misli očekivali smo na kraju drugog razreda. Očekivali smo da će razlika u izraženosti biti statistički značajna u odnosu na ostale točke mjerena, što je djelomično potvrđeno. Rezultati pokazuju kako je na kraju drugog razreda emocionalna uznenirenost statistički značajno viša u odnosu na ostale razrede, osim završnoga, kada nije zabilježena statistički značajna razlika.

Završetak nastavne godine za mnoge je učenike kognitivno i emocionalno stresan zbog povećanog broja pisanih i usmenih provjera znanja i ocjenjivanja. Povišena razina emocionalne uznenirenosti može se očekivati i pri prelasku na višu obrazovnu razinu, kao što je to prelazak u srednju školu. To može utjecati na kvalitetu učenikova rada i povećati rizik za razvoj teškoća mentalnog zdravlja, stoga je važan pravovremeni probir učenika u riziku. Razina emocionalne uznenirenosti i učestalost negativnih automatskih misli za vrijeme uče-

All of the above differences are statistically significant with $p < .05$. The calculated Eta² indices (ranging from 0.27 to 0.43) indicate a statistically significant effect of the measurement point (24).

DISCUSSION

The aim of the study was to examine the level of general emotional distress and the frequency of negative automatic thoughts during secondary school education, to inspect how many students have an elevated level of emotional distress and to investigate statistically significant differences depending on the year of secondary education. Consistent with previous research and available literature, as well as the fact that the majority of participants were female, we have expected to find 20–30% of participants with a significantly increased score on the emotional distress scale, which was confirmed by the results. Considering the developmental characteristics and dynamics of adolescence and practical experience in working with adolescents, the highest level of emotional distress and negative automatic thoughts was expected at the end of the second grade. We expected that the difference in expression would be statistically significant compared with other measurement points, which our study partially confirmed. The results indicate that emotional distress is statistically significantly higher at the end of the second grade compared with other grades, except for the fourth grade, for which no statistically significant difference was recorded.

For many students, the end of the school year is a cognitively and emotionally stressful period due to an increased number of written and oral tests and evaluation of academic achievement. An elevated level of emotional distress can also be expected when moving on to a higher level of education, such as moving on to secondary school. Such a transition can affect the quality of students' work and increase the risk of developing mental health difficulties. Therefore, it is important to have timely screening of students at risk.

nja provjereni su u pet vremenskih točaka. Prvo mjerjenje provedeno je mjesec dana nakon započetog prvog razreda srednje škole, a ostala mjerena tri tjedna prije kraja nastavne godine, u vrijeme zaključnih ispitivanja i provjera znanja. Očekivali smo kako će se više raznine uz nemirenosti detektirati već u prvoj točki mjerjenja. Naime, poznato je kako i transzicija na višu obrazovnu razinu i prilagodba na novi školski kontekst mogu biti vrlo stresni (12), tim više što dio učenika mijenja i mjesto boravišta i odlazi iz primarne obitelji radi školovanja. Međutim, na razini čitave skupine sudionika, rezultati to nisu potvrdili. U prvom mjerjenju prosječni rezultat na CORE-YP upitniku bio je 10,50, što je statistički značajno manje u odnosu na sva ostala mjerena. Gotovalo isti rezultat (10,70) dobiva se za učenike osnovne škole (25). Kao „kritični“ rezultat, onaj koji ukazuje na povišenu razinu emocionalne uz nemirenosti, navodi se 14,1 za mladiće, odnosno 15,9 za djevojke u dobi od 14 do 16 godina (21). Stoga, na osnovi prosječnog rezultata, možemo zaključiti kako početak školovanja u srednjoj školi za sudionike nije bio osobito stresan. Rezultat je moguće objasniti kombinacijom više čimbenika. Radi se o nekliničkoj skupini sudionika, učenika strukovne škole u kojoj se dosta pozornosti pridaje emocionalnoj prilagodbi učenika. Osim toga, u strukovnim programima odnosi s dijelom nastavnika mogu biti opušteniji zbog praktične nastave koja se odvija u malim skupinama. Na taj način, nastavnici i učenici bolje se upoznaju, a učenici dobivaju i više emocionalne podrške. Pored toga, u vrijeme kad je provedeno prvo mjerjenje još se uglavnom obrađuje novo gradivo i prva veća provjeravanja znanja nisu započela. Rezultate možemo usporediti s istraživanjima koja su koristila ovaj upitnik na sličnoj dobroj skupini. Pri primjeni na skupini britanskih adolescenata u dobi do 14 do 16 godina prosječni rezultat na CORE-YP upitniku bio je 7,4 (17). U drugom istraživanju na skupini od 380 adolescenata

The level of emotional distress and the frequency of negative automatic thoughts during learning were examined at five time points. The first measurement was conducted one month after the start of the first grade of secondary school, and other measurements three weeks before the end of the school year, i.e. the time of the final examinations and tests. We have expected to find higher levels of distress already at the first measurement point. Namely, it is known that the transition to the next higher level of education and adaptation to a new school context can be very stressful (12), especially since some students also have to change their place of residence and leave their family home in order to get education. However, the results for the whole group of participants have not confirmed this presumption. In the first measurement, the average score on the YP-CORE questionnaire was 10.50, which is statistically significantly lower than in all other measurements. Almost the same result (10.70) was obtained for primary school students (25). The so-called “critical” result or the one indicating an elevated level of emotional distress indicates 14.1 for boys and 15.9 for girls aged 14 to 16 (21). Considering the average score, we can conclude that the start of secondary education has not been particularly stressful for the participants. This result can be explained by a combination of several factors. We evaluated a non-clinical group of participants, i.e. students attending a vocational school that pays a lot of attention to emotional adjustment of its students. In addition to that, vocational programmes allow for a more relaxed relationship with teachers because of the practical aspects of vocational teaching taking place in smaller groups. In this way, teachers and students have the opportunity to get to know each other and students receive more emotional support. Furthermore, at the time of the first measurement, new school material was only being introduced and the first examinations had not started yet. The results can be compared with other studies that used the same questionnaire for a similar age group. When administered to a

prosječni rezultat bio je 9,4 (21). Autori navode i rezultate skupine od 90 adolescenata u dobi od 11 do 19 godina, koji su svoje upitnike rješavali dva puta s razmakom od 6 godina. Prvi put prosječni rezultat bio je 8,3, a šest godina kasnije 7,7 (21). Istraživanje provedeno u našoj zemlji na uzorku učenica gimnazijskog i strukovnih programa dobivaju nešto više rezultate aritmetičkih sredina, od 14,48 do 16,30. Međutim, tada su analizirani rezultati samo djevojaka, koje i inače postižu nešto više rezultate (20,21). U tom su istraživanju sudjelovale i učenice iz gimnazijskih programa, čiji su rezultati povisili prosječni rezultat skupine, a podatci prikupljeni u studenom, kada se uobičajeno provode prva veća ispitivanja znanja, što je također moglo utjecati na rezultate. Kako bismo dobili dodatne deskriptivne podatke, izračunat je udio učenika s rezultatom 15 ili više, uzimajući u obzir podatke o „kritičnom“ rezultatu usporedive dobne skupine mladića i djevojaka (21). Prema kriteriju rezultat ≥ 15 , 26,52 % sudionika ima povišenu razinu emocionalne uznemirenosti prije no što su počela ispitivanja znanja. Čak 18,78 % učenika ima rezultat ≥ 20 , za što se može reći da je klinički upadljiv. Istim se dva razdoblja u kojima je kod sudionika razina emocionalne uznemirenosti povišena čak i na razini prosječnog rezultata za sve sudionike. To su razdoblja na kraju drugog i četvrtog razreda. Povišeni stres pred kraj srednjoškolskog obrazovanja (četvrti razred) očekivan je zbog dvostrukog pritiska. Osim redovnih ispitivanja, kao učenici strukovne škole trebaju se posebno pripremati i za polaganje ispita državne mature, što je preduvjet za nastavak obrazovanja. Prije kraja srednje škole čak 46,67 % učenika ima rezultat ≥ 15 , a 22,42 % rezultat ≥ 20 . Ipak, najviša razina emocionalne uznemirenosti, uz najčešće prisutne negativne automatske misli sadržajno povezane sa strahom od neuspjeha i strahom od razočaranja roditelja prisutna je pri kraju drugog razreda, kad čak 55,44 % sudionika ima rezultat ≥ 15 . Tada

group of British adolescents aged 14 to 16 years, the mean score on the YP-CORE questionnaire was 7.4 (17). Another study investigated a group of 380 adolescents and established an average score of 9.4 (21). The authors also reported the results found in a group of 90 adolescents aged 11 to 19 years who answered questionnaires twice in an interval of 6 years. The average score was 8.3 on the first occasion, and 7.7 six years later (21). A study conducted in Croatia on a sample of secondary and vocational school students obtained slightly higher scores, ranging from 14.48 to 16.30. However, the study in question analysed only the scores for girls, and girls usually achieve slightly higher results (20,21). Also, the study in question also included female gymnasium students whose results have increased the group's average score. In addition to that, data were collected in November when the first examinations usually take place, which could also have affected the results. To obtain additional descriptive data, the proportion of students scoring ≥ 15 was calculated, taking into account the data on the “critical” score in a comparable age group of boys and girls (21). Among the students scoring ≥ 15 , 26.52% of them had an elevated level of emotional distress before the beginning of examinations. As many as 18.78% of students had a score ≥ 20 , and our findings can be defined as clinically noticeable. We have found two periods in which the level of emotional distress in the participants was elevated compared to the level of the average score for all participants. The two periods are the end of second and the end of fourth grade. Increased stress towards the end of secondary education (fourth grade) is expected due to the double pressure. In addition to regular examinations, students in vocational schools need to additionally prepare for a nation-wide exit exam (Matura), which is a prerequisite for continuing higher education. Before the end of secondary education, as many as 46.67% of students scored ≥ 15 , and 22.42% scored ≥ 20 . However, the highest level of emotional distress with the most common negative automatic thoughts related to fear of failure

čak 26,09 % učenika ima rezultat ≥ 20 , što je u skladu s prethodnim hrvatskim istraživanjima koja detektiraju 20 % do 30 % adolescenata koji imaju neku vrstu teškoća mentalnog zdravlja (9-11). Povezanost emocionalne uznenemirenosti i misli povezanih sa strahom od neuspjeha vrlo je visoka u svim točkama mjerenja ($r = .65$ do $.73$; $p < .01$), što je očekivano i u skladu s teorijskim okvirom istraživanja. Pa, iako se ovdje radi o korelacijskom nacrtu koji ne dozvoljava zaključke o kauzalnoj povezaništvi, rezultati se mogu objasniti kognitivnim modelima disfunkcionalnog doživljavanja i ponašanja, u kojima su automatske misli važan konstrukt (23). U svom modelu Beck (16) pretpostavlja da su emocije pod utjecajem percepcije događaja ili situacije, te su kognitivne procjene i emocionalno stanje u međusobno recipročnom odnosu. Ako se analiziraju rezultati postignuti na podjestvicama Upitnika automatskih misli, uočava se kako su u trećoj točki mjerena najčešći negativni misli koje uključuju strah od neuspjeha (*Ništa ne razumijem, Gluplja sam od drugih, Uzalud se trudim, ionako neću uspjeti i sl.*) i strah od razočaranja roditelja (*Kako ću roditeljima pred oči, Samo im zadajem brige i probleme, Opet ću morati slušati od svojih i sl.*). Učestalost misli vezanih za strah od neuspjeha pojačana je i na kraju srednje škole, no statistički je značajno veća samo u odnosu na prvo mjerenje. Dakle, prije kraja srednje škole povišena je razina opće emocionalne uznenemirenosti, uz nešto manje izražene negativne misli povezane sa strahom od neuspjeha. Moguće je da to proizlazi iz činjenice da su sudionici učenici strukovne škole te imaju svoje prvo zanimanje bez obzira na konačni rezultat završnog razreda. Zanimljivo je uočiti dinamiku promjena u učestalosti misli povezanih sa strahom od razočaranja roditelja. Povezanost emocionalne uznenemirenosti i misli povezanih sa strahom od razočaranja roditelja najviša je u prvome mjerenuju ($r = .54$; $p < .01$), dok je u svim ostalim mjerenjima nešto niža, ali i dalje značajna (.42 do .45; $p < .01$).

and fear of disappointing one's parents was found at the end of second grade, when as many as 55.44% of participants scored ≥ 15 . At that point in time, as many as 26.09% of students scored ≥ 20 , which is in line with previous Croatian research that found that 20-30% of adolescents experienced some sort of mental health problems (9-11). The link between emotional distress and negative automatic thoughts associated with the fear of failure was very highly expressed at all measurement points ($r = .65$ to $.73$; $p < .01$), which was expected and in line with the theoretical framework of the research. Although our correlation design does not allow conclusions about causal relations, the results can be explained by cognitive models of dysfunctional experience and behaviour, in which automatic thoughts represent an important construct (23). Beck's cognitive model (16) proposes that emotions are a result of one's perception of a particular event or situation, and that cognitive evaluation and emotional state have a reciprocal relationship. The analysis of the scores obtained on the Automatic Thought Questionnaire subscales has found that the most common negative thoughts at the third measurement point included fear of failure (*I do not understand anything, I am stupider than others, I have been trying in vain, I will not succeed, etc.*) and fear of disappointing one's parents (*How will I face my parents, I just give them worries and problems, My parents will scold me again, etc.*). The frequency of thoughts related to fear of failure also increased by the end of secondary education, but it was statistically significantly higher only in comparison with the first measurement. Therefore, the level of general emotional distress elevates towards the end of secondary education combined with somewhat less pronounced negative thoughts associated with fear of failure. It is possible that this result stems from the fact that the participants attended a vocational school and that their first occupation did not depend on the academic achievement during the last year of secondary education. It is interesting to note the dynamics of change in the frequency of thoughts

Nakon što dosegnu vrhunac na kraju drugog razreda srednje škole, učestalost misli povezanih sa strahom od razočaranja roditelja opada i najmanja je pri kraju srednje škole. Rezultat se može objasniti na dva načina. Prvo, procesom razvoja osobnog identiteta, odnosno zadovoljavanja potrebe za osobnom nezavisnošću i psihološkog odvajanja adolescenata od roditelja. Razvojno, što je adolescent psihološki manje zavisan od roditelja to bi i zabrinutost od njihova razočaranja mogla biti manja. Moguće je i to da nakon prvog razreda u novoj školi dolazi do stabilizacije očekivanja i roditelja i učenika oko uspjeha, čime se smanjuje i zabrinutost učenika oko eventualnog razočaranja roditelja. Osobito zato što se radi o učenicima strukovne škole koji završetkom ove obrazovne razine imaju svoje prvo zvanje za tržište rada. Uočavaju se i promjene u učestalosti misli povezanih s nemotiviranošću za učenje čija učestalost vremenom raste. Povezanost ovih misli i emocionalne uznenemirenosti je također značajna i kreće se od $r = .38$ do $.54$; $p < .01$. Statistički ih je značajno manje u prvom mjerenu u odnosu na ostala. Takvih je misli najviše na kraju srednje škole (*Ovo mi nikad u životu više neće trebati, Ovo je glupo, Ne mogu se koncentrirati i sl.*). Moguće je da su učenici zasićeniji školskim sadržajima te se to odražava i padom motiviranosti za učenje. Manjak motivacije za učenje može biti i vrsta obrambenog mehanizma. Možda je adolescen-tima koji se boje neuspjeha, ali i promjena koje donosi završetak srednje škole, lakše sačuvati samopoštovanje uz umanjivanje vrijednosti sadržaja učenja. Na taj način eventualni neuspjeh lakše je pripisati nedovoljnom radu zbog nemotiviranosti, nego li tome da učenik nije kompetentan za dosizanje boljeg uspjeha. Budući da do sada nisu objavljeni rezultati koje na Upitniku automatskih misli postižu srednjoškolci, rezultate možemo usporediti samo s onima koje postižu učenici osnovnih škola i studenti (22, 23, 26-28), uz oprez u zaključivanju, budući da u strukturi podljestvica po-

associated with fear of disappointing one's parents. The link between emotional distress and thoughts associated with fear of disappointing one's parents was highest in the first measurement ($r = .54$; $p < .01$) and remained somewhat lower but still significant in all other measurements (.42 to .45; $p < .01$). After reaching a peak at the end of the second grade of secondary school, the frequency of thoughts associated with the fear of disappointing one's parents decreases, reaching the lowest level at the end of secondary education. This finding can be explained in two ways. First, it is due to the process of developing personal identity, i.e. satisfying the need for personal independence and psychological separation of adolescents from their parents. In terms of development, the less the adolescent is psychologically dependent on the parents, the lower the concern about disappointing them. It is also possible that parents and students' expectations of success in school stabilize following the first grade of secondary education, which, in turn, reduces students' concern about disappointing their parents. This might be related to the fact that we have studied students attending vocational school preparing them to enter the labour market upon completion of this educational level. We also observed alternations in the frequency of thoughts associated with the lack of motivation to learn, the frequency of which increased over time. The link between these thoughts and emotional distress is also significantly pronounced, ranging from $r = .38$ to $.54$; $p < .01$. Thoughts associated with the lack of motivation to learn were statistically less significant in the first measurement than in other measurements and most common at the end of secondary education (*I will never need this again in my life, This is stupid, I can't concentrate, etc.*). It is possible that students were more overwhelmed with school obligations resulting in decreased motivation to learn. Lack of motivation to learn might also be a kind of defence mechanism. It is perhaps easier for adolescents who are afraid of failure and change following the completion of secondary education to

stoje male razlike. Prosječni rezultati na podljestvici Strah od neuspjeha slični su između sve tri skupine, osim upadljivo višeg rezultata srednjoškolaca u trećem mjerenu. Na podljestvici Strah od razočaranja roditelja srednjoškolci postižu manji rezultat u odnosu na osnovnoškolce, a rezultati su slični onima koje postižu studenti, iako ne u svim provedenim istraživanjima. Misli vezane uz manjak motivacije za učenje češće su kod učenika srednje škole nego učenika osnovne škole, a nešto se manje pojavljuju nego kod studenata, iako razlike nisu velike.

Analiza rezultata ovog istraživanja potvrdila je primjenjivost korištenih upitnika za probir učenika s rizikom za razvoj teškoća mentalnog zdravlja. Upitnik CORE-YP koji smo koristili, najčešće je korišten upitnik za procjenu razine opće emocionalne uznemirenosti kod učenika od 11 do 16 godina u Velikoj Britaniji (5), a od 2015. godine uveden je i u popis upitnika preporučenih za korištenje školskih savjetovatelja (21). Hrvatski zavod za javno zdravstvo uvrstio ga je u popis instrumenata u projektu „*Probir rizika u mentalnom zdravlju školske djece*“ koji će provoditi školski liječnici u okviru sistematskih pregleda učenika (29). Stoga prikupljeni podatci mogu biti korisni za usporedbu kako u školama tako i u dispanzeraima školske medicine. Upitnik automatskih misli kvalitetna je dopuna, jer daje uvid u kognitivni aspekt emocionalne uznemirenosti učenika što može biti odlična polazna točka za intervencije u savjetovanju. Ovim istraživanjem potvrđena je njegova prethodno definirana struktura i na učenicima srednje škole, kao i visoka pouzdanost (22, 23). Provedba probira, naravno, nije sama sebi svrha. „...Mora imati osiguranu mogućnost pružanja intervencija za djecu za koju se utvrdi da imaju povećani rizik za prisutnost psihičkog poremećaja“ (9), za što je vrlo važna suradnja liječnika školske medicine i škole, poglavito školskih psihologa.

maintain self-esteem by downplaying the value of the learning material. Thus, it is easier to attribute possible failure to a lack of motivation and resulting insufficient efforts than to a student's lack of competence to do better at school. Because no results on the Automatic Thought Questionnaire for secondary school students have been published so far, we could compare our results only with the results for primary school students and university students (22, 23, 26-28). However, it is important to be cautious about drawing firm conclusions due to small differences in the structure of the subscales. The average scores on Fear of Failure subscale were similar for all three groups, except for the markedly higher score of secondary school students in the third measurement. On Fear of Disappointing One's Parents subscale, secondary school students scored lower than elementary school students, and the scores were similar to those achieved by college students, although not in all surveys conducted. Thoughts related to the lack of motivation to learn were more frequent among secondary school students than among elementary school students, and they occurred somewhat less frequently than among college students, although the differences were not significant.

The analysis of the study results has confirmed the applicability of the questionnaires used to screen students at risk for developing mental health difficulties. The YP-CORE questionnaire used in this study is the most commonly used questionnaire for assessing the level of general emotional distress in students aged 11 to 16 in the UK (5). Since 2015, it has been included in the list of recommended questionnaires for use by school counsellors (21). The Croatian Institute of Public Health has included it in the list of tools to be used in the “*Risk screening of mental health in school children*” project that will be carried out by school doctors as part of regular physical examination of students (29). Therefore, the collected data can be useful for comparing results obtained both in schools and in school children's outpa-

Potrebno je razmotriti neke metodološke nedostatke i ograničenja provedenog istraživanja. Korišten je prigodni uzorak učenika strukovne škole što ne dozvoljava generalizaciju rezultata. Osim toga, zajedno su statistički analizirani rezultati (malobrojnih) mladića i djevojaka. Buduće istraživanje trebalo bi uključiti veći broj sudionika, podjednak broj djevojaka i mladića iz različitih škola. Poznato je kako djevojke u odnosu na mladiće češće i intenzivnije doživljavaju emocionalnu napetost i nelagodu (15,20,21), što je i biološki i socijalno uvjetovano te je svakako moglo utjecati i na rezultate ovog istraživanja. Osobito bi bilo vrijedno prikupiti podatke učenika gimnazijskih programa i usporediti ih s rezultatima učenika strukovnih škola, budući da bi i vrsta škole mogla imati značajni utjecaj na izraženost ispitivanih varijabli, kako je to prethodno već i komentirano.

ZAKLJUČCI

Unatoč ograničenjima, istraživanje je dalo vrijedne rezultate. Nađene su značajne razlike u razini emocionalne uzinemirenosti i učestalosti automatskih negativnih misli kod učenika tijekom srednjoškolskog obrazovanja. Emocionalna uzinemirenost nakon tranzicije na srednjoškolsku razinu obrazovanja u prosjeku nije povišena, ali 26,52 % učenika zadovoljava kriterij probira i kod njih postoji potreba za psihološkom podrškom. U vrijeme ispitivanja prije završetka nastavne godine bilježe se znatno više razine emocionalne uzinemirenosti. Ovisno o godini obrazovanja, u tim razdobljima između 38,07 % i 55,44 % učenika zadovoljava kriterij probira zbog rizika za razvoj emocionalnih teškoća, a između 22,10 i 26,09 % učenika ima klinički upadljiv rezultat što ukazuje na potrebu daljnje kliničke obrade, a možda i terapijskog rada s njima. Kao osobito rizično razdoblje u kojem učenici pokazuju najvišu emocionalnu uzinemirenost, najčešće prisutne misli vezane uz strah od neuspjeha i strah od razočaranja

tient clinics. The Automatic Thoughts Questionnaire may supplement and provide useful insights into the cognitive aspect of school children's emotional distress, which can be an excellent starting point for counselling interventions. This study has confirmed its pre-defined structure with secondary school students as well as its high level of reliability (22, 23). Certainly, the implementation of screening is not an end in itself. "... It must provide a possibility to intervene with children with an increased risk of developing mental health disorders" (9). To achieve this, it is very important to have well-developed collaboration between school doctors and schools, especially school psychologists.

It is necessary to consider certain methodological shortcomings and limitations of the conducted study. The sample that was used comprised vocational school students, which does not allow for generalization across the results obtained. In addition, the results obtained from (a small number of) boys and girls have been statistically analysed together. Future research should include a larger number of participants and an equal number of girls and boys from different schools. It is known that girls experience emotional tension and discomfort more frequently and intensely (15, 20, 21) than boys, which is conditioned both biologically and socially and could have influenced the results of this study. As already mentioned, it would be worthwhile to collect data from students attending gymnasiums and compare them with the results obtained from vocational school students because the type of school could have a significant impact on the level of expression of the variables examined.

CONCLUSIONS

Despite its limitations, the study yielded valuable results. Significant differences were found concerning the level of emotional distress and the frequency of negative automatic thoughts

roditelja ističe se kraj drugog razreda. Stoga bi upravo tijekom drugog razreda srednje škole trebalo realizirati najviše aktivnosti za očuvanje mentalnog zdravlja, ali i provoditi sustavni probir učenika u riziku. U tom procesu, upitnici korišteni u ovome istraživanju mogu biti od velike koristi.

with students during secondary education. On average, emotional distress after the transition to the secondary level of education was not increased. However, 26.52% of students have met the screening criteria, which indicates the need for psychological support. Significantly higher levels of emotional distress were recorded at the time of examinations before the end of the school year. Depending on the year of education, between 38.07% and 55.44% of students meet the screening criteria during that period given that they are exposed to the risk of developing emotional difficulties, while 22.10 - 26.09% of students have a clinically significant result, indicating the need for further clinical study and, perhaps, therapeutic work. The end of second grade is a particularly sensitive period during which students express the highest level of emotional distress, most often associated with their thoughts resulting from fear of failure and fear of disappointing one's parents. Therefore, most activities relating to maintaining mental health should take place during the second grade of secondary education. At the same time, a systematic screening of students at risk should be carried out. In this process, the questionnaires used in this study can be very useful.

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Povezanost mentalnog zdravlja i fizičke aktivnosti

/ The Relationship Between Mental Health and Physical Activity

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Mentalno zdravlje je podložno brojnim vanjskim utjecajima. Među njima, kao i u domeni fizičkog zdravlja, vrlo bitan čimbenik je i fizička aktivnost. Fizička aktivnost može različitim mehanizmima djelovanja na patofiziološkoj, ali i psihološkoj razini, utjecati na mentalno zdravlje, a potencijalno i na rizik za razvoj različitih psihičkih poremećaja, pa čak poslužiti i kao metoda njihova liječenja. U ovom radu prikazujemo važnost fizičke aktivnosti za opće mentalno zdravlje, kao i za pojedine psihičke poremećaje – depresiju, anksioznost i psihozu s fokusom na shizofreniju te njenu implementaciju u psihičke poremećaje. Uz mehanizme djelovanja fizičke aktivnosti na mentalno zdravlje naglasak je stavljen i na specifikacije vezane uz njeno provođenje, tj. oblik, intenzitet i trajanje.

/ Mental health is subject to numerous external influences. Among them, as in the domain of physical health, physical activity is a very important factor. Through various mechanisms of action on a pathophysiological but also psychological level, physical activity can have an effect on mental health and potentially also on the risk of developing various mental disorders, and can even serve as a method for their treatment. In this study, we will present the importance of physical activity for general mental health as well as for certain mental disorders – depression, anxiety and psychosis, with a special focus on schizophrenia. In addition to the mechanisms of action of physical activity on mental health, emphasis will be placed on the specifics related to its implementation, more precisely its form, intensity and duration.

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Svjetska zdravstvena organizacija (SZO) definira fizičku aktivnost kao oblik tjelesnog pokreta proizvedenog skeletnim mišićima, koji zahtjeva potrošnju energije uključujući aktivnosti koje se provode tijekom rada, igre, obavljanja kućanskih poslova, putovanja te bavljenja rekreativnim aktivnostima. Termin „fizička aktivnost“ ne bi se trebao fokusirati samo na „vježbanje“ kao potkategoriju usmjerenu prema održavanju kondicije jer svaki oblik fizičke aktivnosti ima zdravstvenu korist (1). S obzirom da se fokus maknuo s kvantitete počela se preferirati diferencijacija fizičke aktivnosti i sedentarnog ponašanja kao neovisnih varijabli u odnosu na učinak na zdravlje. Što dulje osoba provede u sedentarnom ponašanju, to se osjeća manje energično za daljnje provođenje aktivnosti (2). Prednost imala je obavljanje bilo kakve aktivnosti u odnosu na nikakvu aktivnost koja vodi u navikavanje na sedentarno ponašanje, bez obzira na njen intenzitet i trajanje (1). Tako bolji učinak na raspoloženje i mentalni status ima uzimanje pauza kod sedentarnog ponašanja u bilo kakvom aktivnom obliku s obzirom da epizode takvog ponašanja ≥ 30 minuta uzrokuju pogoršanje raspoloženja, pa moguće čak i fizičkog stanja uz slabost i vrtoglavicu. Nažalost, vrlo često posao primorava na svakodnevno dugotrajno sedentarno ponašanje, ali bi se u tim slučajevima trebalo promovirati uzimanje aktivnih pauza (2). Koristi fizičke aktivnosti se primarno promatraju kao pozitivan učinak na fizičko zdravlje, ali se sve više fokus usmjerava i na mentalno zdravlje. Fizička aktivnost potencijalno smanjuje rizik od hipertenzije, koronarne bolesti srca, inzulta, dijabetesa i raznih vrsta karcinoma uključujući karcinom dojke i kolona, ali i depresije kao prvog u ovom kontekstu navedenog psihičkog poremećaja od strane SZO-a (1,3).

Preporuke SZO-a koje savjetuju provođenje barem 150 odnosno 75 minuta fizičke aktivnosti srednjeg odnosno jakog intenziteta na tjedan

The World Health Organization (WHO) has defined physical activity as a form of physical movement produced by skeletal muscles that requires energy – including activities during work, play, housework, travel and recreational activities. The term “physical activity” should not exclusively focus on “exercise” as a subcategory that aims to maintain physical fitness, because every form of physical activity has health benefits (1). Given that the focus has been redirected from quantity, it became preferable to differentiate physical activity and sedentary behavior as independent variables in relation to health. The longer the person spends in sedentary behavior, the less he or she feels energetic enough to further carry out physical activities (2). It is preferable to perform any kind of activity regardless of its intensity and duration over being completely inactive, which leads directly to habituation to sedentary behavior (1). Thus, taking breaks from sedentary behavior in any active form has a better effect on mood and mental status, since episodes of such behavior lasting ≥ 30 minutes can cause worsening of the mood and possibly even impoverishment of the physical condition followed by weakness and dizziness. Unfortunately, very often the nature of work forces a person to engage in daily long-term sedentary behavior, but in these cases taking active breaks should be considered (2). The benefits of physical activity are primarily observed through a positive effect on physical health, but an increasing focus is also being placed on mental health. Physical activity potentially reduces the risk of hypertension, coronary heart disease, stroke, diabetes and various types of cancer including breast and colon cancer, but also depression as the first mental disorder mentioned in this context by the WHO (1, 3).

WHO recommendations that advise at least 150 or 75 minutes of moderate or high intensity physical activity per week for adults (18-64

za osobe odrasle dobi (18 – 64 g.) te barem 60 minuta aktivnosti srednjeg do jakog intenziteta na dan za djecu i adolescente (5 – 17 g.) nisu specifične za prevenciju ili smanjenje rizika od razvoja pojedinih fizičkih i psihičkih poremećaja (1,3). Moguće je da bi s obzirom na depresiju ta razina aktivnosti mogla biti i niža, posebno zbog toga što su osobe koje pate od depresije pod većim rizikom od razvoja drugih psihičkih poremećaja pa će vjerojatno biti fizički neaktivnije ili će preferirati aktivnost niskog do srednjeg intenziteta. Posljedično, prevencija svakog pojedinog medicinskog stanja mogla bi zahtijevati različite obrasce i preporuke za provođenje fizičke aktivnosti što je gotovo nemoguće dizajnirati, ali bi i slalo zbumujuću poruku općoj javnosti. Umjesto toga, važnije je da te preporuke budu percipirane od strane javnosti kao dostizne odnosno vrlo vjerojatno moguće provedive, jer u suprotnome često izazivaju suprotni učinak (3). Što se tiče trajanja same aktivnosti, studije su pokazale kako više nije uvijek bolje. Najpovoljniji učinak na mentalno zdravlje imaju vježbanje te sportsko-rekreativne aktivnosti poput biciklizma, rolanja, planinarenja, plivanja, pilatesa, joge i drugih, između 30 – 60 min, 3 – 5 x/tjedan, a ekstremno vježbanje duže od 90 min ili više od 23 puta/mjesec se prije povezuje s pogoršanjem mentalnog zdravlja (4). S druge strane, za određena stanja poput depresije moguće je da fizička aktivnost od čak 1 sat/tjedan ima pozitivan učinak na mentalno zdravlje (5).

Mentalnim zdravljem prema SZO-u smatra se stanje blagostanja u kojem pojedinac ostvaruje svoje vlastite sposobnosti, sposoban je nositi se s normalnim životnim stresovima, sposoban je produktivno i plodonosno raditi te dati doprinos svojoj zajednici. Dakle, to je stanje puno više od samog nepostojanja određenog psihičkog poremećaja (6). Postoje razni čimbenici koji utječu na stanje mentalnog zdravlja: od dobi, bračnog statusa, razine edukacije, primanja te statusa (ne)zaposlenosti pa do razine fizičke

years) and at least 60 minutes of medium to high intensity daily activity for children and adolescents (5-17 years), are not specific for the prevention or reduction of the risk of developing certain physical and mental disorders (1, 3). It is possible that this level of activity could be lower in the case of depression, especially because people who suffer from it have a higher risk of developing other mental disorders and are more likely to be physically inactive or to prefer physical activity of low to medium intensity. Consequently, the prevention of each individual medical condition could require different patterns and recommendations for the proper planning of multiple suitable physical activities, which is not only almost impossible to design but would also send a confusing message to general public. Instead, it is more important that these recommendations are perceived by the public as achievable or very likely to be carried out, because otherwise they often cause a counter-effect (3). As for the duration of the activity itself, studies have shown that more is not always better. Exercise and sports recreational activities such as cycling, rollerblading, hiking, swimming, Pilates, yoga and others, lasting between 30-60 min ×3-5 / week have the most favorable effect on mental health, and extreme exercise longer than 90 min or more than ×23 / month is more often associated with deterioration of mental health (4). On the other hand, for certain conditions such as depression, it is possible that physical activity of as much as 1 h / week has a positive effect on mental health (5). According to the WHO, mental health is considered to be a state of well-being in which an individual is capable of self-actualization through their own abilities, is able to cope with normal life stresses, work productively and fruitfully and contribute to their community. Thus, it is a condition comprising much more than the mere absence of a particular mental disorder (6). There are various factors that affect the state of mental health ranging from age, mar-

aktivnosti (7). Kako je ranije spomenuto, fizičkom aktivnošću se ne smatra samo vježbanje. Primarno se uvijek misli na fizičku aktivnost u slobodno vrijeme koja je studijama dokazano povezana s pozitivnim učinkom na mentalno zdravlje bilo da je u obliku vježbanja, rekreacije, putovanja, ali osim toga u obzir dolazi i fizička aktivnost koja se obavlja tijekom puta na posao ili u školu u obliku npr. hodanja ili vožnje biciklom (4,7,8). I taj oblik fizičke aktivnosti je tijekom studija povezan s pozitivnim učinkom na mentalno zdravlje (7,9,10). S druge strane fizička aktivnost koja se provodi na poslu je pokazala kontradiktorne učinke na mentalno zdravlje u različitim studijama. Kod određenih pojedinaca je utjecala negativno, a kod određenih pozitivno na mentalno zdravlje. Smatra se da je mogući uzrok negativnog učinka to što se takve aktivnosti smatraju obveznim zadatcima više nego voljnim aktivnostima te posljedično ne garantiraju osjećaj uživanja u njima, pa se ni ne mogu povezati s pozitivnim učinkom na mentalno zdravlje (7,10). Međutim, ti bi kontradiktorni učinci mogli imati podlogu i u individualnim razlikama pojedinaca odnosno načinu na koji različite podgrupe populacije percipiraju specifičnu fizičku aktivnost uz njen učinak na vlastito mentalno stanje. Tako se tijekom studije pokazalo kako ženama koje rade kao proizvodne radnice ("djelatnici plavog ovratnika") fizička aktivnost koja se provodi obavljanjem kućanskih poslova prouzrokuje visoku razinu stresa, jer je to nešto što moraju obaviti same nakon napornog radnog dana bez opcije zapošljavanja pomoći. S druge strane, kod žena koje su uredske radnice ("djelatnici bijelog ovratnika") razina stresa povezana s obavljanjem kućanskih poslova je puno niža jer ih one nužno ne moraju obavljati - mogu zapoštiti kućnu pomoćnicu ili bolje podijeliti takve poslove međusobno (11).

Kada je riječ o opsegu provođenja fizičke aktivnosti na razini populacije, podaci su osigurani istraživanjem SZO-a o razini tjelesne aktivnosti

ital status, level of education, income and (un) employment status to the level of physical activity (7). As mentioned earlier, physical activity does not only include exercise. Primary, it is always meant to refers to physical activity in leisure time, which studies have proven to be associated with a positive effect on mental health, whether in the form of exercise, recreation, travel, etc., but physical activity performed during the trip to work or to school in the form of walking or cycling is also considered (4, 7, 8). Studies have also linked this form of physical activity with a positive effect on mental health (7, 9, 10). On the other hand, physical activity carried out at work has shown contradictory effects on mental health in various studies. It has had a negative effect on certain individuals and a positive effect on the mental health of others. A possible cause of the negative effect is considered to be the fact that such activities are considered mandatory tasks rather than voluntary activities and consequently do not guarantee a sense of enjoyment, so they cannot be associated with a positive effect on mental health (7, 10). However, these contradictory effects could also be based on the individual differences, specifically the way in which different population subgroups perceive a certain form of physical activity or its effect on their own mental state. Thus, one study showed that for women who work as production workers ("blue collar workers") physical activity carried out through housework caused high levels of stress because it is something they have to do on their own after a hard day's work without the option of hiring help. On the other hand, for women who are office workers ("white collar workers"), the level of stress associated with doing housework was much lower because they do not necessarily have to do it – they can hire a maid or divide housework among each other (11).

Regarding the quantity of physical activity on a population level, data have been provided by a WHO survey on the level of physical activity

u zemljama članicama EU kojim je obuhvaćena i Republika Hrvatska. Osim zdravstvenih djelatnika koji su obučeni za davanje savjeta o prehrani i fizičkoj aktivnosti, u RH postoji i nacionalni program "Živjeti zdravo". Također je bitna uloga savjetovališta za pravilnu prehranu i fizičku aktivnost u sklopu HZJZ-a kao i 13 županijskih zavoda za javno zdravstvo. U sklopu istraživanja mjerena je razina fizičke aktivnosti po dobnim skupinama temeljena na preporukama SZO-a. Time se došlo do podataka da 88 % osoba dječje dobi, 19 % adolescenata, 16 % osoba odrasle dobi (18 - 64 g.) te svega 6 % osoba starije životne dobi (>65 g.) obavlja fizičku aktivnost u skladu s preporukama SZO-a u RH (12).

Osim RH istraživanje je provedeno u još 26 država EU te UK. Trend razine fizičke aktivnosti se većinom održava visokim u dječjoj dobi kao i u RH te pada prema odrasloj i starijoj životnoj dobi. Međutim, postoje države koje su tome potpuna suprotnost. Primjerice, stanovnici Austrije obavljaju fizičku aktivnost prema preporukama SZO-a u dječjoj i adolescentskoj dobi u svega 17 % slučajeva, u odrasloj dobi u čak 47 %, a u starijoj 24 %. Isti trend niskog postotka aktivnosti u dječjoj i adolescentskoj dobi te visokog u odrasloj te starijoj dobi u usporedbi s RH nalazi se i u Belgiji, Danskoj s izrazito niskim vrijednostima aktivnosti u dječjoj dobi (16 %) te adolescenciji (11 %), a izrazito visokim u odrasloj (72 %) i starijoj dobi (68 %), zatim u Estoniji, Francuskoj čiji su postotci vrlo slični onima u Danskoj, Latviji, Poljskoj, Španjolskoj te Švedskoj. S druge strane, podatci iz susjedne Slovenije pokazuju zavidne vrijednosti obavljanja fizičke aktivnosti u svim dobnim skupinama, od 88 % u dječjoj dobi, 69 % u adolescenata, 77 % u odrasloj dobi te 61 % u starijoj životnoj dobi (13).

Fizička aktivnost je među ovim državama promovirana od zdravstvenog osoblja u 75 % slučajeva, a u 88,5 % slučajeva je to od liječnika

in EU member states, which includes the Republic of Croatia. Besides health professionals who are trained to give advice on nutrition and physical activity, there is a national program in the Republic of Croatia called "Healthy Living". The Croatian Institute of Public Health as well as 13 county public health institutes also play an important role in counseling for proper nutrition and physical activity. As part of the study, the level of physical activity by age group was measured based on WHO recommendations. This showed that 88% of children, 19% of adolescents, 16% of adults (18-64 years) and only 6% of older people (>65 years) perform physical activity in accordance with WHO recommendations in the Republic of Croatia (12).

Besides the Republic of Croatia, the study was conducted in 26 other EU countries and the United Kingdom. The trend in the level of physical activity was mostly maintained as high in childhood as in the Republic of Croatia and declining towards adulthood and older age. However, there are countries that are the complete opposite. For example, only 17% of children and adolescent residents in Austria performed physical activity according to WHO recommendations, whereas this number was as high as 47% in adults and 24% in the elderly. The same trend of low percentage of physical activity in children and adolescents and high in adults and elderly was also found in Belgium and Denmark, with extremely low values of physical activity in children (16%) and adolescents (11%) and extremely high values in adults (72%) and elderly people (68%), and also in Estonia and France, where these percentages were very similar to Denmark, Latvia, Poland, Spain and Sweden. On the other hand, data from the neighboring Slovenia show enviable values physical activity through all age groups, from 88% in children, 69% in adolescents, 77% in adults and 61% in the elderly (13).

Physical activity is promoted by health professionals in 75% of cases among these states, and in 88-5% of the cases it is promoted by physi-

te u manjem postotku od medicinskih sestara, fizioterapeuta ili drugih djelatnika medicinske struke (14).

FIZIČKA AKTIVNOST I DEPRESIJA

Depresija je psihički poremećaj karakteriziran sniženim raspoloženjem u obliku dugotrajnog osjećaja tuge ili nemira i tjeskobe, izostanka uživanja u ranije ugodnim aktivnostima, visokog osjećaja bezvrijednosti ili krivnje, a u terminalnom obliku i mislima o samoozljedivanju te pokušaju suicida. Negativno utječe na obavljanje jednostavnih svakodnevnih zadataka te posebno na odnose s obitelji i prijateljima, ali i na radnu sposobnost. Uključuje i somatske manifestacije poput manjka energije i apetita, nesanica ili suprotno preveliku potrebu za snom te smanjenu koncentraciju. Prema posljednjim podatcima iz 2014.-2015. g. u RH je 5,1 % muškaraca te 6,2 % žena imalo depresiju (15). Depresija je psihički poremećaj u podlozi kojeg su opisane razne hipoteze. Najšire uvriježena je monoaminska hipoteza prema kojoj je depresija povezana sa smanjenom količinom monoamina u mozgu uključujući noradrenalin, dopamin i serotonin. Nadalje, hipoteza endorfina, posebno β -endorfina, ističe njihove pozitivne učinke, u ovom kontekstu primarno anti-depresivne s mogućnošću potenciranja osjećaja euforije, ali i analgetске te antipyretske (16,17). Utjecaj fizičke aktivnosti može se primijeniti na obje navedene hipoteze. Tijekom provođenja fizičke aktivnosti dolazi do povećanog izlučivanja serotonina u mozgu te do pojačane sinaptičke transmisije (16,17). Osim toga, moguće je i da se redovitim vježbanjem povisuje i razina triptofana u mozgu kao glavne aminokiseline za proizvodnju setoronina (17). Prema hipotezi endorfina, endorfini se u značajnoj mjeri izlučuju tijekom fizičke aktivnosti (16,17). Spominju se u kontekstu razvoja osjećaja euforije poznatijem kao *Runner's High* odnosno opuštenom psihičkom stanju ponekad doživ-

cians and to a lesser extent by nurses, physiotherapists or other medical professionals (14).

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PHYSICAL ACTIVITY AND DEPRESSION

Depression is a mental disorder characterized by lower mood in the form of prolonged feelings of sadness or restlessness and anxiety, lack of enjoyment of previously pleasant activities, intense feelings of worthlessness or guilt, and in the worst cases thoughts of self-harm and suicide attempts. It negatively affects the performance of simple daily tasks and especially relationships with family and friends, but also working ability. It also includes somatic manifestations such as lack of energy and appetite as well as insomnia or, conversely, excessive need for sleep and decreased concentration. According to the latest data from 2014-2015 in the Republic of Croatia, 5.1% of men and 6.2% of women suffer from depression (15). Depression is a mental disorder with various hypotheses on the underlying causes. The most widely accepted one is the monoamine hypothesis, according to which depression is associated with decreased amounts of monoamines in the brain including norepinephrine, dopamine and serotonin. Next is the endorphin hypothesis, with a focus on β -endorphin, which emphasizes its positive, primarily antidepressant effects with the possibility of potentiating feelings of euphoria, but also its analgesic and anti-pyretic effects (16, 17). The impact of physical activity can be applied to both of these hypotheses. During physical activity, there is increased secretion of serotonin in the brain and increased synaptic transmission (16, 17). In addition, it is possible that regular exercise increases the level of tryptophan in the brain, the main amino acid for the production of serotonin (17). Regarding the endorphin hypothesis, endorphins are significantly excreted during physical activity (16, 17). They are often mentioned in the context of the development of a euphoric feeling better known

ljenom tijekom intenzivnog vježbanja (17). Njihov učinak je najizraženiji nakon nekoliko mjeseci redovitog vježbanja zbog povećanja osjetljivosti organizma te se dulje zadržavaju u krvotoku (17). Studijama je i dokazano kako se vježbanjem povećava izlučivanje endorfina, ali nije sasvim jasno ima li to značajan učinak na raspoloženje. Takvi rezultati se potencijalno mogu pripisati tome da izmjerene plazmatske koncentracije endorfina ne korespondiraju vjerodstojno stvarnom stanju u središnjem životnom sustavu (16).

Iz ranije navedenih fizioloških mehanizama koji se događaju tijekom fizičke aktivnosti, ali i patofiziološke podloge same depresije, moglo bi se zaključiti kako bi fizička aktivnost mogla potencijalno poboljšati stanje i kvalitetu života osoba koje pate od depresije. Međutim, odnos fizičke aktivnosti i depresije je dvosmjeran. Osobe koje pate od depresije su, kao što je već spomenuto, puno češće fizički neaktivne ili smanjeno aktivne, a s druge strane niske razine fizičke aktivnosti povećavaju rizik od depresije (18). Određene barijere poput sniženog raspoloženja, smanjene energije, kondicije i motivacije, ali i uzimanja antidepresiva koji za nuspojavu mogu imati vrtoglavicu, smanjuju mogućnost primjene fizičke aktivnosti u osoba koje boluju od depresije i time onemogućuju njen pozitivan učinak na mentalno zdravlje (19,20). Kao što je ranije navedeno, nije točno jasno koliki je intenzitet fizičke aktivnosti potreban kod osoba koje pate od depresije te postoji mogućnost kako je on i niži od standarda SZO-a s obzirom da te osobe većinom preferiraju aktivnosti niskog do srednjeg intenziteta (3). Čak do dvije trećine osoba koje pate od depresije se ne uklapaju u navedene standarde i preporuke SZO-a, a najviše preferirana fizička aktivnost je prema studijama upravo hodanje (18,20,21). Hodanje je aktivnost niskog intenziteta u kojoj si osoba sama može odrediti tempo (20). Stoga, takav oblik fizičke aktivnosti ne stvara pritisak da se mora

as “runner’s high” or of a relaxed mental state sometimes experienced during intense exercise (17). Their effect is most pronounced after a few months of regular exercise, due to the increase in body sensitivity and the fact that they also remain in the bloodstream longer (17). Studies have also shown that exercise increases endorphin secretion, but it is not entirely clear whether this has a significant effect on mood. Such results can potentially be attributed to the fact that the measured plasma endorphin concentrations do not reliably correspond to the actual state in the central nervous system (16).

Based on the aforementioned physiological mechanisms that occur during physical activity, but also the pathophysiological basis of depression itself, it could be concluded that physical activity could potentially improve the condition and life quality of people suffering from depression. However, the relationship between physical activity and depression is bidirectional. People suffering from depression are, as already mentioned, much more often physically inactive or less active, and on the other hand low levels of physical activity increase the risk of depression (18). Certain barriers, such as low mood, decreased energy, fitness and motivation, but also taking antidepressants which can have dizziness as a side effect, reduce the capacity for physical activity in people suffering from depression and thus prevent its positive effect on mental health (19, 20). As mentioned earlier, it is unclear which level of intensity of physical activity is required in people suffering from depression, and it is possible that the level is lower compared with the WHO’s standards given that these people mostly prefer low- to medium-intensity activities (3). As many as two-thirds of people suffering from depression do not meet stated the WHO standards and recommendations, and the most preferred physical activity according to studies is actually walking (18, 20, 21). Walking is a low-intensity activity in which a person can set their own pace (20). Therefore, this form of

uklopliti u preporuke i standarde SZO-a, posebno ako nema sposobnosti dostići ih što bi moglo dodatno negativno utjecati na psihičko stanje. Čak bi i niske razine aktivnosti mogle djelovati protektivno i pozitivno na razvoj i tijek depresije (22). Također, prema istraživanjima je moguće da kod blage do umjereno teške depresije fizička aktivnost ima jednaku razinu pozitivnog utjecaja kao psihoterapija, posebno pokazano na primjeru trčanja kao oblika fizičke aktivnosti (23). Dakle, brojne studije su pokazale pozitivan učinak fizičke aktivnosti kod osoba koje pate od depresije ili su pod povećanim rizikom od njenog razvoja, samo je upitno u kojem obliku, intenzitetu i trajanju bi se ta aktivnost trebala provoditi (22,24-26). Prema rezultatima studija jednaka je korist provoditi aerobne vježbe u usporedbi s vježbama snage, jer je sama fizička aktivnost u smanjenju simptoma depresije važnija od razvoja kondicije vježbanjem visokog intenziteta (27,28). Također, čini se da je učinkovitije provoditi vježbanje u kontinuitetu (npr. 30 minuta/dan) nego intermitentno (npr. 3 x 10 minuta/dan s pauzom od 2 sata). Vježbanje srednjeg intenziteta u kontinuitetu osigurava bolju adherenciju i uspjeh u odnosu na nekoliko serija vježbanja visokog intenziteta s pauzama s obzirom da se osobe s psihičkim poremećajima češće priklanjaju aktivnostima nižeg do srednjeg intenziteta (29,30). U budućnosti preostaje sumirati rezultate raznih studija i donijeti jasne smjernice i preporuke za prevenciju, ali i moguću terapiju depresije.

FIZIČKA AKTIVNOST I ANKSIOZNOST

Pod terminom anksioznost smatra se širok spektar anksioznih poremećaja koji se u većini slučajeva dijeli na akutne psihološke odgovore povezane s određenim događajem ili stimulansom te kronične dugotrajne poput generaliziranog anksioznog poremećaja

physical activity does not create the pressure of having to comply to the WHO's recommendations and standards, especially if a person does not have the ability to reach them, which could have an additional negative effect on the mental state. Even low levels of activity could have a protective and positive effect on the development and course of depression (22). Additionally, according to research, it is possible that physical activity has the same level of positive impact as psychotherapy in mild to moderate depression, especially as seen in the example of running as a form of physical activity (23). Thus, numerous studies have shown a positive effect of physical activity in people who suffer from depression or are at increased risk of developing it, with still outstanding questions regarding the form, intensity and duration in which the activity should be carried out (22, 24-26). According to study results, it is equally beneficial to perform aerobic exercises or strength exercises, because physical activity itself is more important in reducing the symptoms of depression than developing fitness by exercising with high intensity (27, 28). Furthermore, it seems to be more effective to exercise continuously (e.g. 30 minutes/ day) than intermittently (e.g. 3×10 minutes / day with a break of 2 h). Medium-intensity continuous exercise provides better adherence and success compared with several series of high-intensity exercise with breaks, considering that people with mental disorders are more likely to engage in low- to medium-intensity activities (29, 30). In the future, the results of various studies remain to be summarized, and clear guidelines and recommendations must be formed for prevention but also possible therapy for depression.

PHYSICAL ACTIVITY AND ANXIETY

The term “anxiety” includes a wide range of anxiety disorders that are in most cases divided into acute psychological responses associated with

(31). Anksiznost je stanje neugodnog straha i tjeskobe. Uključuje niz somatskih simptoma poput palpitacija, podrhtavanja ruku ili tijela, pojačanog znojenja, suhoće usta, dispneje/tahipneje, mučnine te napetosti mišića, ali i psihičkih simptoma poput slabosti, smanjene koncentracije, osjećaja nesvjestice te perzistirajuće zabrinutosti, ali i straha od gubitka kontrole nad vlastitim ponašanjem ili da će se dogoditi nešto neugodno. Učestalost generaliziranog anksioznog poremećaja je 3-5 % (32). U podlozi same anksioznosti može se kao i kod depresije naći poremećaj monoaminskog sustava, ali i smanjena razina GABA-e kao inhibitornog neurotransmitera te neurotrofnog čimbenika moždanog podrijetla (BDNF) što pridonosi razvoju atrofičnih strukturalnih promjena u određenim kortikalnim regijama s naglaskom na one koje imaju ulogu u integraciji emocionalnih podražaja poput hipokampa (33-35). Čini se da BDNF ima pozitivan utjecaj na preživljjenje i rast neurona te njegova smanjena razina može biti patofiziološka podloga i za razvoj depresije (34,35). Osim već ranije opisanog pozitivnog učinka fizičke aktivnosti na monoaminski sustav, fizička aktivnost može dovesti i do povećanja razine određenih neuroregeneracijskih biljega poput spomenutog BDNF-a, ali i boljeg balansa između upalnih i protuupalnih te oksidativnih i antioksidativnih faktora s obzirom da se u podlozi anksioznosti može naći i povećana razina određenih upalnih faktora te povećan oksidativni stres (34,36,37).

Uvezši u obzir opisane patofiziološke mehanizme fizička aktivnost bi uvelike mogla imati pozitivan učinak na anksioznost, kao što bi i sedentarno ponašanje moglo imati negativan, što su pokazale i neke studije (38-40). Postoji mogućnost i da nisu uvijek fiziološki mehanizmi u pitanju, već i psihološki, pa se tako aktivnošću, prema hipotezi distrakcije, preusmjerava pažnja osobe sa stresnog stimulansa posljedično smanjujući razinu anksioznosti

a particular event or stimulus and into chronic long-term ones, such as generalized anxiety disorder (31). It is a state of uncomfortable fear and anxiety. It includes a number of somatic symptoms such as palpitations, trembling hands or body, increased sweating, dry mouth, dyspnea / tachypnea, nausea and muscle tension, but also psychological symptoms such as weakness, decreased concentration, the felling of dizziness and persistent concern, but also fear of losing control of one's own behavior or that something embarrassing will happen. The incidence of generalized anxiety disorder is 3-5% (32). The basis for anxiety disorders, as in the case of depression, can be found in the dysfunction of the monoamine system, but also in reduced levels of GABA as an inhibitory neurotransmitter and brain-derived neurotrophic factor (BDNF), which contributes to the development of atrophic structural changes in certain cortical regions, with emphasis on those with a role in the integration of emotional stimuli such as the hippocampus (33-35). BDNF appears to have a positive effect on neuronal survival and growth, and reduced levels may be a pathophysiological basis for the development of depression (34, 35). In addition to the previously described positive effect of physical activity on the monoamine system, activity can also lead to an increase in the level of certain neuroregenerative markers, such as the abovementioned BDNF, and to a better balance between inflammatory and anti-inflammatory and oxidative and antioxidative factors, because the underlying basis for anxiety can correlate to increased levels of certain inflammatory factors and increased oxidative stress (34, 36, 37).

Given the described pathophysiological mechanisms, physical activity could have great a positive effect on anxiety, just as sedentary behavior could have a negative one, as studies have shown (38-40). There is a possibility that it is not always the physiological mechanisms that are in question, but also psychological ones, so activity, according to the distraction hypothe-

(16,38). Fizička aktivnost smanjuje rizik od simptoma anksioznosti, ali i od razvoja anksioznih poremećaja, posebno u usporedbi s osobama koje imaju vrlo niske razine fizičke aktivnosti (39). Djeluje anksiolitički i kod onih s anksioznim poremećajima i onih bez anksioznih poremećaja (19,41). Ipak, pitanje je djeluje li protektivno na sve anksiozne poremećaje ili specifično na neke poremećaje (39). Nerijetko se u pitanje dovodi učinak fizičke aktivnosti na panični poremećaj za koji se u većini studija smatra da ima protektivan učinak, ali ipak neke studije ukazuju na mogućnost da ga može pogoršati. Tome u prilog navode i činjenicu da brojni ljudi s paničnim poremećajem izbjegavaju provoditi posebno aerobne aktivnosti od straha da će biti „trigger“ za panični napad. Taj strah proizlazi iz činjenice da fiziološka reakcija koja se razvije tijekom aerobnih aktivnosti poput povećanja pulsa i ventilacije te znojenja sliči manifestacijama paničnog napada. Stoga, iako se fizička aktivnost ne povezuje s razvojem paničnog napada, reakcije koje se tijekom njenog izvođenja dogode mogu se krivo interpretirati (42,43). Problematično je to što izbjegavanje aktivnosti vodi do općeg smanjenja kondicije što opet dovodi do slične fiziološke reakcije i na motoričke akcije minimalnog intenziteta stvarajući osobi još veći teret (42).

Kada je u pitanju oblik te intenzitet i trajanje fizičke aktivnosti, nema puno studija niti one daju jednake rezultate. U početku je većina studija uključivala samo aerobne aktivnosti, pa se moguće zbog toga u pojedinima pokazala veća korist takvog oblika fizičke aktivnosti (44). Međutim, prema novijim studijama otkrivena je podjednaka korist aerobnog vježbanja kao i vježbi snage (45,46). Podatci o intenzitetu su vrlo nekonzistentni jer neke studije preferiraju aktivnost niskog intenziteta poput hodanja ili džogiranja (40-50 % maksimalne srčane frekvencije), neke srednjeg (50-60 % maksimalne srčane

sis, redirects the attention of a person from a stress stimulus, consequently reducing the level of anxiety (16, 38). Physical activity reduces the risk of anxiety symptoms, but also of the development of anxiety disorders, especially compared with people who have very low levels of physical activity (39). It acts anxiolytically in both those with and without anxiety disorders (19, 41). However, the question is whether it has a protective effect on all anxiety disorders or specifically on particular disorders (39). The effect of physical activity on panic disorder, which is considered to have a protective effect based on most studies, is often questioned because of certain studies which suggest that physical activity may worsen it. This is supported by the fact that many people with panic disorder avoid performing aerobic activities in particular because of the fear of them being a “trigger” for a panic attack. This fear stems from the fact that the physiological response that develops during aerobic activities such as increased heart rate, ventilation and sweating is similar to the manifestations of a panic attack. Therefore, although physical activity is not associated with the development of a panic attack, the reactions that occur during its performance may be misinterpreted (42, 43). The problem is that avoiding activity leads to a general decrease in physical fitness, which in turn leads to a similar physiological reaction to motor actions of even minimal intensity, creating an even greater burden on the person (42).

Regarding the intensity and monitoring of physical activity, there are not many studies about the topic, and the ones that provide some statistics about it are not uniform in the results. Initially, most studies included only aerobic activities, so it is possible that that is the reason why some of them showed greater benefit of that form of physical activity (44). However, according to new studies, it has been found that the benefits of aerobic exercise are equal to the benefits of strength exercises (45, 46). Intensity data are very inconsistent due to the fact that

frekvencije), a neke čak visokog intenziteta (70-75 % maksimalne srčane frekvencije) (47). S obzirom da ti podatci nisu usuglašeni, najbolja je opcija prilagoditi razinu intenziteta pojedincu u konzultaciji sa zdravstvenim radnikom. Oni ciljevi koje osoba donese sama imaju veću vjerojatnost adherencije (45). Na kraju, čini se, najveći i konzistentan utjecaj na smanjenje anksioznosti ima trajanje fizičke aktivnosti, iako se po točnim brojkama studije razlikuju. Prema nekima se najučinkovitijom aktivnošću smatra ona s trajanjem od barem 21 minute, a prema nekima od barem 30 minuta, iako bi čak i fizička aktivnost od 5 minuta mogla uzrokovati anxiolitički efekt (38,47,48). Važnije od duljine pojedine serije fizičke aktivnosti je razdoblje tijekom kojeg se ona dugoročno provodila. Prema nekima se najboljim učinkom na anksioznost smatra provođenje tijekom 10-15 tjedana ili čak duže uz smanjenu učinkovitost u trajanju manjem od 9 tjedana, a prema nekima je najučinkovitije razdoblje od 3 do 12 tjedana uz smanjenje nakon toga moguće zbog smanjenja adherencije (38,48).

FIZIČKA AKTIVNOST I PSIHOZA

Pod ovim terminom opisivat ćeemo shizofreniju kao u istraživanjima najšire prikazanu psihozu u povezanosti s fizičkom aktivnošću. Karakteristike ovog psihičkog poremećaja uključuju pozitivne (halucinacije, sumanute ideje, poremećaji mišljenja) i negativne (smanjena motivacija, pasivizacija, poteškoće u izražavanju emocija, siromaštvo komunikacije) simptome te kognitivne simptome (poremećaj pažnje, pamćenja). Pojavnost u populaciji kreće se od 2,5 do 3,5/1000 stanovnika (32). Točna etiologija je i dalje nepoznata, ali postoje brojni čimbenici koji utječu na njen razvoj: od genetike do promjena u središnjem živčanom sustavu. Te promjene podrazumijevaju poremećaj serotoninina, dopamina, noradrenalina, GABA-e, ali i

some studies prefer low intensity activity such as walking or jogging (40-50% of maximum heart rate), while other examined medium (50-60% of maximum heart rate) and high intensities (70-75% of maximum heart rate) (47). Since these data are not consistent, the best option was to adjust the different levels of intensity to a person's preferences in consultation with the healthcare professional. The goals that a person sets himself have a higher probability of adherence (45). Finally, the duration of physical activity appears to have the greatest and the most consistent impact on reducing anxiety, although numbers differ in some studies. According to some, physical activity is most effective when it lasts at least 21 minutes, or least 30 minutes according to others, although even 5 minutes of physical activity could have an anxiolytic effect (38, 47, 48). More important than the duration of an individual series of physical activity is the period in which it is conducted in the long run. According to some studies, the best effect on reducing anxiety is exercise that lasts for 10-15 weeks or even longer, with reduced efficiency for durations of 9 weeks or less, while according to others, the most effective period is 3 to 12 weeks, after which it has a lesser effect, probably due to reduced adherence (38, 48).

PHYSICAL ACTIVITY AND PSYCHOSIS

Under this term, we will discuss schizophrenia since it is the most widely presented psychosis in association with physical activity in previously conducted studies. Characteristics of this mental disorder include positive (hallucinations, bizarre delusions, disruptions of thoughts) and negative (decreased motivation, passivation, difficulty in expressing emotions, poverty of communication) symptoms as well as cognitive symptoms (e.g. attention and memory disorder). The incidence in the population ranges from 2.5-3.5 / 1000 people (32). The exact eti-

raniye spomenutog BDNF-a koji ima veliku ulogu u hipokampalnoj regiji, a u ovom poremećaju je kao i kod anksioznosti snižen (49,50). Osim manjka BDNF-a hipokampalna regija, važna za učenje i pamćenje, kod shizofrenije je moguće smanjena s posljedičnim poremećajem neuroplastičnosti (51). S obzirom da se antipsihoticima može djelovati samo na hormonske poremećaje, a ne i na ovaj zadnje opisani dio, pozitivan učinak bi mogla imati fizička aktivnost koja, kao što je ranije spomenuto, povisuje razinu BDNF-a (50,52). Nije poznato kojim bi još mehanizmima fizička aktivnost mogla djelovati, ali studijama je pokazano kako ima pozitivan učinak i na pozitivne i negativne simptome, kogniciju s naglaskom na socijalnu kogniciju, kvalitetu života te svakodnevno funkcioniranje (50,53,54). Nažalost, gotovo se polovica osoba koje boluju od shizofrenije ne uklapa u preporuke izvođenja fizičke aktivnosti SZO-a uz slične barijere kao u dosad navedenim poremećajima – smanjena kondicija, primjena antipsihotika ili antidepresiva s posljedičnom pojavom vrtoglavice, itd. Zanimljiv nalaz je da se usporedbom rezultata upitnika koje osobe samostalno ispunjavaju i rezultata kliničkih analiza uvidjelo kako imaju krivo viđenje i procjenu količine vremena koju provode u sedentarnom ponašanju (niže vrijednosti u odnosu na realan rezultat) odnosno izvodeći fizičku aktivnost (više vrijednosti u odnosu na realan rezultat) (19). Moguće je da je to posljedica kognitivnih poremećaja, ali i da zbog te krive procjene osobe ne izvode veće količine fizičke aktivnosti jer imaju percepciju kao da je već izvode dovoljno.

Kada su u pitanju karakteristike fizičke aktivnosti koja bi se trebala provoditi, većinom se stavlja naglasak na aerobnu aktivnost, dok ostali oblici nisu istraženi u većem obujmu. Aerobna aktivnost je povezana s pozitivnim učinkom na sve ranije navedene simptome shizofrenije, ali posebno na negativne simptome, simptome depresije i anksioznosti (54,55). Prema studiji iz

ology is still unknown, but there are various factors that influence its development, from genetics to changes in the central nervous system. These changes include a disorder in serotonin, dopamine, norepinephrine and GABA levels, but also in the previously mentioned BDNF that plays a major role in the hippocampal region and is reduced, as in anxiety (49, 50). Additionally, the hippocampal region, which is important for learning and memory, may be reduced in schizophrenia, with a consequent decrease in neuroplasticity (51). Since antipsychotics can only act on hormonal disorders and not on BDNF, physical activity could have a positive effect because it, as mentioned earlier, raises BDNF levels (50, 52). It is not known by which other mechanisms physical activity could act, but studies have shown that it has a positive effect on both positive and negative symptoms, on cognition with an emphasis on social cognition, on quality of life and on daily functioning (50, 53, 54). Unfortunately, almost half of people with schizophrenia do not fit the WHO's recommendations for physical activity because of the barriers similar to those in the previously described mental disorders – reduced fitness, use of antipsychotics or antidepressants with consequent dizziness, etc. An interesting finding is that comparison of self-report questionnaires results and clinical analyses results showed patients they have a distorted view and assessment of the amount of time they spend in sedentary behavior (lower values compared with the actual result) or performing physical activity (higher values compared with the actual result) (19). It is possible that this is a consequence of cognitive disorders, but it may also be the case that the incorrect assessment leads to performing lower amounts of physical activity because of the perception that they are already performing enough.

Regarding the characteristics of physical activity that should be performed, emphasis has been placed on aerobic activity, while other forms have not been explored to a greater ex-

- 36 2014. g. provedenoj na pacijentima koji boluju od shizofrenije ili shizoafektivnog poremećaja, aerobna aktivnost srednjeg intenziteta u obliku hodanja na pokretnoj traci ili vožnje sobnog bicikla u trajanju od 30 do 40 min. 3 puta/tjedan 10–16 tjedana, pokazala je pozitivan učinak na ublažavanje simptoma (56).

ZAKLJUČAK

Ovim prikazom međuodnosa mentalnog zdravlja s naglaskom na pojedine psihičke poremećaje i fizičke aktivnosti može se zaključiti kako fizička aktivnost u tom kontekstu ima vrlo veliku i važnu ulogu. S razlogom postoje preporuke SZO-e za provođenje fizičke aktivnosti u bilo kojem obliku s obzirom na njene multiple pozitivne učinke poput regulacije razine hormona i neuroregenerativnih biljega u središnjem živčanom sustavu, regulacije odnosa upalnih/protuupalnih te oksidativnih/antioksidativnih faktora, ali i na psihološkoj razini distrakcije od raznih vanjskih stresnih stimulansa. U takvom obliku fizička aktivnost može služiti kao prevencija za razvoj psihičkih poremećaja te poboljšanje općeg mentalnog zdravlja, ali i kao terapija psihičkih poremećaja. Ako bi ikada postojala mogućnost, preporuke primjene fizičke aktivnosti za prevenciju/lječenje psihičkih poremećaja i unaprjeđenje mentalnog zdravlja bilo bi poželjno unificirati i detaljnije opisati točnim oblikom aktivnosti, intenzitetom i trajanjem. Vježbanje srednjeg intenziteta u kontinuitetu osigurava bolju adherenciju i uspjeh prema studijama za depresiju, dok bi za anksiozne poremećaje najučinkovitija aktivnost bila ona s trajanjem od barem pola sata u rasponu trajanja od 10 do 15 tjedana. Dok za depresiju i anksioznost jednaki učinak ima aerobni način vježbanja kao i vježbe snaga, za psihoze se preporuča aerobna aktivnost srednjeg intenziteta u razdoblju od 10 do 16 tjedana do poboljšanja simptoma. Zaključno, pri propisivanju tjelesne aktivnosti s ciljem poboljšanja zdravlja poseb-

tent. Aerobic activity is associated with a positive effect on all of the previously mentioned symptoms of schizophrenia, but especially on the negative symptoms and symptoms of depression and anxiety (54, 55). According to a 2014 study conducted on patients with schizophrenia or schizoaffective disorder, medium-intensity aerobic activity in the form of walking on a treadmill or riding a stationary bike for 30–40 min, ×3 / week for 10-16 weeks has shown a positive effect on relieving symptoms (56).

CONCLUSION

Based on this review of the association between mental health, with an emphasis on a few individual mental disorders, and physical activity, it can be concluded that physical activity plays a very large and important role in this context. The WHO's recommendations for physical activity obviously exist with good reason, considering its multiple positive effects such as regulation of hormone levels and neuroregenerative markers in the central nervous system, regulation of inflammatory / anti-inflammatory and oxidative / antioxidative factors, but also by causing a distraction from various external stress stimuli on the psychological level. Consequently, physical activity can serve as prevention for the development of mental disorders and improvement of mental health in general, but also as a therapy for mental disorders. Should it ever be possible, it would be beneficial to unify recommendations for the use of physical activity in the prevention or treatment of mental disorders and improvement of mental health by describing in more detail the exact form of activity, its intensity and duration. Medium-intensity exercise in continuity ensures better adherence and success according to studies for depression, while the most effective activity for anxiety disorders would be the one lasting at least half an hour daily for 10-15 weeks. While the aerobic mode

nu je pozornost potrebno obratiti da oblik, intenzitet i trajanje tjelesne aktivnosti budu prilagođeni dobi i zdravstvenom statusu osobe koja sudjeluje u tjelesnoj aktivnosti, odnosno osobnim tjelesnim komorbiditetima.

of exercise has the same effect as strength exercises for depression and anxiety, aerobic activity of medium intensity over a period of 10-16 weeks is recommended for psychosis until the symptoms improve. In conclusion, when recommending physical activity with the aim of improving health, special attention should be paid to ensure that the form, intensity and duration of physical activity is age-appropriate and also appropriate to the health status of the person participating in physical activity.

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Analiza tekstova objavljenih u časopisu „Socijalna psihijatrija“ u razdoblju od 2011. do 2020. godine

/ Analysis of the Texts Published in „Socijalna Psihijatrija“ in the Period 2011-2020

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U radu su prikazani rezultati analize, treće po redu, radova objavljenih u časopisu „Socijalna psihijatrija“ od 2011. do 2020. godine. Cilj ove analize je utvrditi obilježja članaka (njihovu kategorizaciju, uže područje koje obrađuju, analizu autora i ustanova iz kojih dolaze). Analizirane su tehničke karakteristike, ključne riječi po učestalosti i područjima te literatura navedena na kraju članka. U desetogodišnjem razdoblju objavljeno je 312 radova. Od toga su 255 članci i 57 radovi iz kategorije „Ostali radovi“ (uvodnici, prikazi knjiga, obavijesti i sl.). Prema kategoriji članaka dominiraju pregledni radovi kojih je objavljeno 88. Područja koje radovi obrađuju najviše se odnose na kliničku psihijatriju, psihoterapiju, socijalnu psihijatriju, psihologiju te dječju i adolescentnu psihijatriju. Ukupno je bilo 829 autora (radi se o 317 osoba, jer većina autora ima dva ili više radova). Analiza prema autorima pokazala je da su oni najčešće psihijatri, psiholozi, liječnici drugih struka, autori iz kategorije „Ostali“, medicinske sestre i tehničari, specijalizanti psihijatrije. Gledano ustanovu iz koje dolazi prvi autor (ili autor za korespondenciju) na prvom mjestu su psihijatrijske klinike, a slijede fakulteti, kategorija „Ostale ustanove“ i psihijatrijske bolnice. Najzastupljenije su ključne riječi iz područja dječje i adolescentne psihijatrije, kliničke psihijatrije, kognitivno-bihevioralne terapije, psihoterapije, suicidalnosti te pojmom „mentalno zdravlje“. Rezultati ovoga istraživanja uspoređuju se s onima dobivenim za razdoblja 1991.-2000. godina i 2001.-2011. godina.

/ This paper provides an overview of the third analysis of the articles published in Social Psychiatry between 2011 and 2020. The aim of the analysis was to determine the characteristics of articles (category, research area, authorship, and affiliations). The analysis included technical characteristics of the articles, key words by frequency and area, and reference lists. During the 10-year period, 312 contributions were published. Of these, 255 were articles and 57 contributions were categorized as "Other" (editorials, book reviews, notices etc.). The majority of the published papers – 88 of them – were review articles. The most frequently covered areas were clinical psychiatry, psychotherapy, social psychiatry, psychology, and child and adolescent psychiatry. Overall, there were 829 authors (317 individuals, majority of whom authored two or more articles), who were mostly psychiatrists, psychologists, practitioners from other areas, authors of contributions in the "Other" category, nurses and technicians, and residents in psychiatry. According to the first author's affiliation (or the institution listed by the corresponding author), psychiatric clinics were the most common affiliations, followed by university schools, "other" institutions, and psychiatric hospitals. The most commonly used key words were those related to the fields of child and adolescent psychiatry, clinical psychiatry, cognitive-behavioral therapy, psychotherapy, and suicide, followed by the term "mental health". The results of the present study were compared with those for the periods from 1991 to 2000 and 2001 to 2011.

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Periodicals

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UVOD

Časopis „Socijalna psihijatrija“ počeo je izlaziti 1973. godine u okviru tadašnje Klinike za psihijatriju Kliničkog bolničkog centra. Njegov pokretač i prvi glavni urednik prof. dr. sc. Nikola Peršić u Uvodniku prvoga broja napisao je „Predavajući ovaj prvi broj časopisa našoj javnosti želimo da to bude od povijesnog značenja za razvitak naše psihiatije“ (1).

Riječi prof. Peršića su se na neki način i ostvarile. Redovitim izlaženjem, otvaranjem autora različitih struka, škola i usmjerena, objavljanjem radova iz svih značajnih područja, s temama koje su aktualne te podizanjem kvalitete objavljenih članaka časopis „Socijalna psihijatrija“ je izrastao u vodeći hrvatski psihiatrijski časopis. Časopis se citira u publikacijama PsychINFO, SCOPUS, Excerpta Medica (EMBASE), Indeks Copernicus, Google Scholar, EBSCO, HRČAK, a baza CiteFactor mu je za 2020. godinu dodijelila *impact factor* 1,45.

Prva analiza radova u časopisu obavljena je za razdoblje od 1991. do 2000. godine (2). U tom vremenu došlo je do osamostaljenja Republike Hrvatske, Domovinskog rata, i niza društvenih, političkih i gospodarskih promjena u našoj zemlji. Te su promjene utjecale na psihiatritski pobol, epidemiološke pokazatelje, psihiatrijsku skrb, organizaciju psihiatrijske službe, znanstvenu i stručnu usmjerenošć, suradnju psihiatije s drugim strukama i uopće brigu o

INTRODUCTION

The journal *Social Psychiatry* was started in 1973 by what was then the Psychiatric Clinic of the Zagreb University Hospital Center. Its founder and the first editor-in-chief Prof. Nikola Peršić, in the Editorial to the first issue, wrote as follows: “By presenting this first issue of the journal to our readership, we would like it to carry historical significance for the development of our psychiatry” (1).

The words of Prof. Peršić came true in a way. Due to regularly published issues, openness towards authors of different professional backgrounds, articles covering all the relevant fields and current topics, and increasing quality of published papers, *Social Psychiatry* has grown into a leading Croatian psychiatric journal. It is cited in databases such as PsychINFO, SCOPUS, Excerpta Medica (EMBASE), Index Copernicus, Google Scholar, EBSCO, and HRČAK. According to the CiteFactor, the journal’s impact factor was 1,45 in 2020.

The first analysis of articles published in the journal was conducted for the period between 1991 and 2000. During that time, Croatia declared independence, the Homeland War broke out, and various social, political, and economic changes were under way. These circumstances influenced psychiatric morbidity, epidemiological indicators, psychiatric care, organization of psychiatric services, scientific and professional

osobama s duševnim smetnjama. Sve su te promjene ostavile traga u člancima objavljenima u časopisu.

U tom razdoblju najveći broj radova je iz područja ratne, forenzičke, kliničke i socijalne psihijatrije. Najviše radova dolazilo je s klinika (na prvom je mjestu Klinika za psihijatriju Kliničkog bolničkog centra Zagreb) i iz psihijatrijskih bolnica (Psihijatrijska bolnica Vrapče).

Druga analiza odnosi se na razdoblje od 2001. do 2011. godine (3). Njezini rezultati i usporedba s onima iz prethodne analize pokazali su mijenja li se i kako struktura članaka, koji trendovi prevladavaju, koja područja psihijatrije i srodnih struka se najviše obrađuju, koje su nove teme zastupljene u odnosu na ranije razdoblje.

CILJ ISTRAŽIVANJA

Ovo je redovita (moglo bi se reći već tradicionalna), treća po redu analiza radova objavljenih u časopisu „Socijalna psihijatrija“. Kao i prethodne koje analiziraju desetogodišnje razdoblje, u ovoj se istražuje članke objavljene od 2011. do 2020. godine.

Cilj ovoga istraživanja je utvrditi strukturu objavljenih tekstova, područja iz kojih dolaze njihovi autori, ustanove iz kojih dolaze, ključne riječi, tehnička obilježja i popis literature u časopisu „Socijalna psihijatrija“ za prošlo desetljeće.

METODA ISTRAŽIVANJA

Analizirana je struktura radova prema kategorizaciji (izvorni znanstveni, stručni, pregledni, prikaz bolesnika, ostali radovi) te podjela prema područjima koja obrađuju. Ta su područja klinička psihijatrija, biologiska psihijatrija, psihoterapija, socijalna psihijatrija, dječja i adolescentna psihijatrija, psihologija, ratna

orientation, collaboration between psychiatry and other disciplines, and overall care for individuals with mental health problems. All these changes left their mark on the articles published in the journal.

In that period, the majority of articles were in the areas of war, forensic psychiatry, clinical psychiatry, and social psychiatry. Most affiliations listed in the bylines were psychiatric clinics (the Department of Psychiatry of the University Hospital Center being the most productive) and psychiatric hospitals (Vrapče Psychiatric Hospital).

The second analysis encompassed the period between 2001 and 2011 (3). The comparison of the second analysis results with the results of the previous analysis showed the differences, or similarities, in the structure of the articles changed, the prevailing trends, the most investigated areas of psychiatry and related fields, and the research topics that were new relative to the earlier period.

AIM

This is a regular (one might even say traditional) analysis of the articles published in *Social Psychiatry*. Like previous analyses, it covers a 10-year period, focusing on articles published between 2011 and 2020.

The aim of this analysis was to determine the structure of the published articles, the authors' fields of work, authors' affiliations, key words, technical characteristics of the papers, and references listed in *Social Psychiatry* in the previous decade.

METHOD

The articles were categorized according to their structure (original scientific, professional, review, case report, other) and areas they covered. These included clinical psychiatry, biological psychiatry, psychotherapy, social psychiatry, child and adolescent psychiatry, psychology, war psychiatry, suicidology, addiction disorders, in-

psihijatrija, suicidologija, bolesti ovisnosti, intelektualne teškoće, organizacija psihijatrijske službe, povijest psihijatrije te ostala područja.

Autorska analiza obuhvaća autore prema za stupljenosti, profesiji, mjestu rada (ustanova u kojoj je rad nastao).

Analiza ključnih riječi usmjerenja je prema područjima te prema učestalosti pojavljivanja.

Tehnička obilježja rada koja su promatrana su veličina, grafički prikazi, tablice i jezik rada.

Analiziran je i popis literature: ukupan broj referenci, reference domaćih i stranih autora, one koje se odnose na časopis „Socijalna psihijatrija“ te samocitiranost.

S obzirom da je metodologija ovoga istraživanja ista kao i u dvije prethodne analize, njihovi su rezultati uspoređivani s ovom za zadnje desetljeće.

REZULTATI

U analiziranom razdoblju (2011.-2020.) tiskano je 10 volumena časopisa, odnosno 40 brojeva, u kojima je objavljeno 312 radova, ukupan broj autora je 829 (radi se o 317 osoba, od kojih su neki bili autori u dva ili više radova).

Struktura radova

Svi su članci podijeljeni prema uobičajenoj kategorizaciji. Od 312 radova izvornih znanstvenih radova bilo je 63, preglednih radova 88, stručnih 87, prikaza bolesnika 17 te ostalih radova 57. Kategorija Ostali radovi odnosi se na uvodnike, osvrte, prikaze knjiga, vijesti i sl. Ti su rezultati prikazani u tablici 1. Najviše je preglednih radova (88), a stručnih radova je samo jedan manje. U usporedbi s ranijim razdobljima, ovo je prvi puta da preglednih radova ima najviše. Broj stručnih radova, ali i prikaza bolesnika značajno je smanjen u odnosu na prethodno razdoblje.

tellectual disabilities, organization of psychiatric services, history of psychiatry, and other areas.

The analysis of authorship focused on the number of authors and coauthors, their profession and affiliation (the institution where the article was written).

Key words were analyzed according to the scientific fields and rate of occurrence.

The analyzed technical characteristics of articles included the word count, number of figures and tables, and language.

Reference lists were also analyzed, including the number of references, references to national and foreign authors, journal self-citations, and author self-citations.

As the method used in this study is identical to the method used in two previous analyses, it allowed for the comparison of results.

RESULTS

In the analyzed period between 2011 and 2020, 10 volumes of the journal were published, consisting of 40 issues and a total of 312 articles. The total number of authors was 829 (317 individual authors, some of whom authored two or more papers).

Article structure

The articles published in the analyzed period were divided according to the usual categorization. Of the 312 published articles, 63 were original scientific papers, 88 review articles, 87 professional papers, 17 case reports, and 57 “Other” papers. The latter category included editorials, book reviews, news, and similar contributions. The results are shown in Table 1. Review articles were the most frequent ($n=88$), with professional papers trailing just by 1 ($n=87$). Compared to earlier periods, this is the first time that review articles were the most represented type of article. The number of pro-

TABLICA 1. Kategorizacija članaka objavljenih u „Socijalnoj psihijatriji“ od 2011. do 2020. godine.
TABLE 1. Categorization of articles published in *Social Psychiatry* between 2011 and 2020.

Izvorni znanstveni radovi / Original scientific papers	63
Stručni radovi / Professional papers	87
Pregledni radovi / Review articles	88
Prikazi bolesnika / Case reports	17
Ostalo (uvodnici, osvrti, vijesti i sl.) / Other (editorials, commentaries, news etc.)	57
Ukupno / Total	312

Područja radova

Podjela prema specifičnim područjima koja obrađuju članci prikazana je u tablici 2. Analizirano je 255 tekstova, a ne sveukupnih 312, zbog toga što ih 57 čini kategoriju „Ostali“. Vidljivo je da su područja koja obrađuju radovi klinička psihijatrija, psihoterapija, socijalna psihijatrija, psihologija te dječja i adolescentna psihijatrija. U kategoriju ostalih radova ušli su članci iz pojedinih područja kojih je bilo manje od 5 (etika, defektologija, neurologija, interna medicina, stomatologija, javno zdravstvo i dr.).

U promatranom razdoblju pet brojeva objavljeni su kao tematski. Prvi tematski broj iz 2013. godine, bio je posvećen 40-godišnjici časopisa „Socijalna psihijatrija“ (urednici M. Jakovljević i D. Begić). Drugi tematski broj objavljen je 2015. godine u povodu 20-godišnjice djelovanja Hrvatskog udruženja za bihevioralno-kognitivne terapije (urednica I. Živčić-Bećirević).

Iduća dva tematska broja posvećena su dječjoj i adolescentnoj psihijatriji. Prvi je iz 2017. go-

fessional papers and case reports decreased significantly in comparison with the previous period.

Research areas

The categorization according to the specific research areas is shown in Table 2. The analysis included 255 of the total of 312 articles, because 57 fell into the “Other” category. The research areas covered by the articles were clinical psychiatry, psychotherapy, social psychiatry, psychology, and child and adolescent psychiatry. Areas represented by 5 or less papers (ethics, special education, neurology, internal medicine, dental medicine, public healthcare, and others) were included in the “Other” category.

During the observed period, five thematic issues were published. The first one, published in 2013, was dedicated to the 40th anniversary of *Social Psychiatry* (M. Jakovljević & D. Begić, editors). The second one was published in 2015 to celebrate 20 years of activity of the Croatian

TABLICA 2. Struktura članaka prema područjima i temama koje obrađuju
TABLE 2. The distribution of articles according to research and topics covered

Klinička psihijatrija / Clinical psychiatry	53	Biologička psihijatrija / Biological psychiatry	9
Psihoterapija / Psychotherapy	43	Ratna psihijatrija / War psychiatry	6
Socijalna psihijatrija / Social psychiatry	40	Suicidologija / Suicidology	4
Psihologija / Psychology	34	Povijest psihijatrije / History of psychiatry	4
Dječja i adolescentna psihijatrija / Child and adolescent psychiatry	22	Organizacija psihijatrijske službe / Organization of psychiatric services	2
Forenzička psihijatrija / Forensic psychiatry	10	Ostalo (etika, defektologija, somatika i sl.) / Other (ethics, special education, somatic medicine, and others)	76
Bolesti ovisnosti / Addiction disorders	9	Ukupno / Total	312

dine povodom 1. hrvatskog kongresa o mentalnom zdravlju djece i mlađih s međunarodnim sudjelovanjem, čiji su urednici K. Dodig Ćurković, T. Franić i V. Boričević Maršanić. Drugi je tiskan 2018. godine povodom 2. hrvatskog kongresa o mentalnom zdravlju djece i mlađih s međunarodnim sudjelovanjem, a urednice su bile V. Boričević Maršanić, G. Buljan Flander, V. Rudan i D. Kocjan Hercigonja.

Povodom 140. obljetnice Bolnice Vrapče organiziran je 2019. godine simpozij „Dugovječnost – civilizacijsko postignuće i izazov današnjice“. Radovi s tog simpozija objavljeni su u tematskom broju „Socijalne psihijatrije“, čiji je urednik bio N. Mimica.

Analiza prema autorima

U zadnjih 10 godina u časopisu „Socijalna psihijatrija“ članak je objavilo 829 autora (823 iz Hrvatske i 6 iz inozemstva). Radi se o 317 autora, od kojih su 208 koautori (navedeni su u dva ili više radova). Autora koji se pojavljuju samo jednom je 109.

Većina radova su u koautorstvu (64 rada imaju samo jednog autora, većinom su to osvrti, prikazi knjiga, vijesti).

Profesionalna je struktura sljedeća: 477 su psihijatri (od toga 108 dječji i adolescentni psihijatri), psihologa je 201, liječnika ostalih struka 48, socijalnih radnika 21, medicinskih sestara i tehničara 17, specijalizanata psihijatrije 16, studenata 13, defektologa 12. Autora iz kategorije „Ostali“ je 24 i to su pravnici, specijalizanti ostalih struka, okupacioni terapeuti, knjižničari, pedagozi i sl. Profesionalna struktura autora prikazana je u tablici 3.

Autori koji su najčešće objavljivali u „Socijalnoj psihijatriji“ u promatranom desetogodišnjem razdoblju su: V. Jukić (21 članak), N. Mimica (16), V. Boričević Maršanić (16), Lj. Karapetrić Bolfan (9), N. Jokić-Begić (8), D. Kalinić (8), Lj. Paradžik (8), O. Kozumplik (7), S. Uzun (7), I. Zečević (6), G. Buljan Flander (5), I. Živčić-Bećirević (5).

Association for Behavioral-Cognitive Therapies (I. Živčić- Bećirević, editor). The following two thematic issues were dedicated to child and adolescent psychotherapy. The first one, from 2017, was published on the occasion of the First Croatian Congress on Child and Adolescent Mental Health With International Participation. The editors were K. Dodig Ćurković, T. Franić and V. Boričević Maršanić. The second one, published in 2018, was dedicated to the Second Congress and was edited by V. Boričević Maršanić, G. Buljan Flander, V. Rudan and D. Kocjan Hercigonja. In 2019, on the occasion of the 140th anniversary of the Vrapče hospital, the symposium “Longevity – an Achievement of Our Civilization and a Contemporary Challenge” was organized. The papers presented at the symposium were published in the thematic issue edited by N. Mimica.

Authorship analysis

In the previous 10 years, 829 authors (824 from Croatia and 6 from abroad) published an article in *Social Psychiatry*. There were 317 individual authors, of whom 208 were coauthors (they participated in the writing of two or more articles). There were 109 authors with single contributions.

Most articles were written by multiple authors (only 64 of them had a single author – mostly reviews, book reviews, and news).

The professional background of authors was as follows: 477 authors were psychiatrists (108 child and adolescent psychiatrists), 201 psychologists, 48 other physicians, 21 social workers, 21 nurses and medical technicians, 16 residents in psychiatry, 13 students, and 12 special-education teachers. There were 24 authors in the “Other” category: jurists, residents in other disciplines, occupational therapists, librarians, pedagogues, and others. The professional structure of authors published in the analyzed period is shown in Table 3.

TABLICA 3. Struktura autora prema zanimanju
TABLE 3. Authorship structure according to profession

Psihijatri / Psychiatrists	477
Psiholozi / Psychologists	201
Liječnici ostalih struka / Other physicians	48
Socijalni radnici / Social workers	21
Medicinske sestre i tehničari / Nurses and technicians	17
Specijalizanti psihiatrije / Residents in psychiatry	16
Studenti / Students	13
Defektolozi / Special-education teachers	12
Ostali / Other	24
Ukupno / Total	829

Ustanove iz kojih radovi dolaze

Mjesto (ustanova) odakle članak dolazi analizirano je prema nazivu ustanove koju je autor naveo u zaglavlju rada. Kod radova s više autora u analizu je uzeta ustanova prvoga autora ili autora navedenog za korespondenciju (ako on nije bio prvi autor). Prema toj analizi najveći broj radova dolazi iz psihiatrijskih klinika, a zatim slijede fakulteti, ustanove iz kategorije „Ostalo“, psihiatrijske bolnice, psihiatrijske ordinacije te psihiatrijski odjeli. Ti su rezultati prikazani u tablici 4. koja obuhvaća 312 radova.

Od psihiatrijskih klinika (koje zajedno imaju 130 radova) najviše članaka došlo je iz Klinike za psihološku medicinu i Klinike za psihiatriju Kliničkog bolničkog centra Zagreb, odnosno novoustrojene (od 2019. godine) Klinike za psihiatriju i psihološku medicinu KBC Zagreb (ukupno 61 rad) te iz Klinike za psihiatriju Vrapče, potom slijede klinike u Osijeku, Rijeci, Splitu. Fakulteti su na drugom mjestu prema broju radova. Od fakulteta najviše radova je došlo s Filozofskog fakulteta u Zagrebu, Pravnog fakulteta u Zagrebu – Studij socijalnog rada te Edukacijsko-rehabilitacijskog fakulteta u Zagrebu.

Na trećem mjestu redoslijeda ustanova je kategorija „Ostali“, u koju ulaze nepsihiatrijske bolnice, odjeli i ambulante, centri za socijalni rad, škole, udruge, umirovljenici i privatne osobe.

The most published authors in *Social Psychology* in the analyzed decade were as follows: V. Jukić (21 articles), N. Mimica (16 articles), V. Boričević Maršanić (16 articles), Lj. Karapetrić Bolfan (9 articles), N. Jokić-Begić (8 articles), D. Kalinić (8 articles), Lj. Paradžik (8 articles), O. Kozumplik (7 articles), S. Uzun (7 articles), I. Zečević (6 articles), G. Buljan Flander (5 articles) and I. Živčić-Bećirević (5 articles).

Affiliations

The institution listed in article's byline was taken as the institution of origin. In case of coauthored articles, either the first author's affiliation or the institution listed by the corresponding author were taken into account. The analysis showed that the institutions of origin for majority of articles were psychiatric clinics, followed by university schools, "Other" institutions, psychiatric hospitals, psychiatric outpatient facilities, and psychiatric wards. These results are shown in Table 4.

Of the 130 articles from psychiatric clinics, the majority were from the Department of Psychological Medicine and the Department of Psychiatry of the University Hospital Center Zagreb, merged in 2019 into the of Department of Psychiatry and Psychological Medicine of the UHC Zagreb (61 article in total), followed by Vrapče Psychiatric Clinic and psychiatric clinics in Osijek, Rijeka, and Split. University schools came second in terms of total number of articles published. The most represented were the Zagreb University Faculty of Philosophy and Zagreb University Faculty of Law – Social Work Study Center, as well as the Zagreb University Faculty of Education and Rehabilitation Sciences.

The third-ranked were the institutions falling under the "Other" category: non-psychiatric hospitals, wards and outpatient facilities, social welfare centers, schools, organizations, pensioners and private persons.

TABLICA 4. Struktura radova prema ustanovama autora
TABLE 4. Structure of published articles according to parent institutions

Psihijatrijske klinike / Psychiatric clinics	130
Fakulteti / Faculties	60
Psihijatrijske bolnice / Psychiatric hospitals	37
Psihijatrijske ambulante / Psychiatric outpatient facilities	16
Psihijatrijski odjeli Opće bolnice / Psychiatric wards of the General Hospital	15
Ostalo / Other	54
Ukupno / Total	312

Ključne riječi

Najzastupljenije su ključne riječi iz područja kliničke psihiatije, psihoterapije te dječje i adolescentne psihiatije. Najčešće ključne riječi (navode se više od 5 puta) prikazane su u tablici 5. Najčešće korištene ključne riječi su djeca i adolescenti, demencija, depresija, kognitivno-bihevioralna terapija i shizofrenija.

Tehničke karakteristike

Od 258 radova 108 je bez grafičkog prikaza, a 150 s grafičkim prikazima (tablice, slike, različiti prikazi i dodatci). Ukljupno je objavljeno 480 tablica, 164 slike i 11 prikaza (dodataka). Što se tiče jezika rada 3 članka su na engleskom jeziku.

TABLICA 5. Najčešće ključne riječi i broj koliko su puta navedene
TABLE 5. The most frequently used key words and occurrence rates

Djeca i adolescenti / Children and adolescents	28	Grupna terapija / Group therapy	11
Demencija / Dementia	17	Bolesti ovisnosti / Addiction diseases	10
Depresija / Depression	17	Mentalno zdravlje * / Mental health*	10
Kognitivno-bihevioralna terapija / Cognitive-behavioral therapy	17	Obiteljsko nasilje / Domestic violence	9
Shizofrenija / Schizophrenia	15	Posttraumatski stresni poremećaj / Posttraumatic stress disorder	9
Alzheimerova bolest / Alzheimer's disease	14	Suicidalnost / Suicidality	9
Anksioznost / Anxiety	14	Stigma / Stigma	9
Psihičke bolesti / Mental illnesses	13	Stres / Stress	7
Psihoterapija / Psychotherapy	13	Stavovi / Attitudes	6
Poremećaji ličnosti / Identity disorders	12	Adolescencija / Adolescence	6

* Ključno riječi Mentalno zdravlje bi se mogla pribrojati riječ Psihičko zdravlje koja je navedena 3 puta.

/ *The three uses of the keyword "psychic health" can be added to this number

Key words

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The most commonly used key words in the analyzed articles covered the areas of clinical psychiatry, psychotherapy, and child and adolescent psychiatry. The most frequently used (5 or more times) key words are shown in Table 5. These include: children and adolescents, dementia, depression, cognitive-behavioral therapy, and schizophrenia.

Technical characteristics

Of 258 articles, 150 included figures (tables, images, various illustrations, and appendices). In total, 480 tables, 164 figures, and 11 appendices were included. Regarding the language, 3 articles were in English.

References

The total number of sources cited in articles in the analyzed period was 9513, with an average number of 37 citations per article. Of the total number of citations, 1493 were published by Croatian authors (5.7 per article) and 174 were citations from *Social Psychiatry* (approximately 0.7 per article). The number of sources cited in the reference lists ranged between 2 and 181 citations.

Ukupan broj citiranih referenci je 9513 (što iznosi gotovo 37 referenci u pojedinom članku). Od tih referenci 1493 su one hrvatskih autora (što je prosječno 5,7 u pojedinom članku), a 174 je iz „Socijalne psihiatije“ (oko 0,7 u pojedinom članku). Broj citiranih radova kreće se od 2 do 181.

Najcitanije reference su Međunarodna klasifikacija bolesti i srodnih zdravstvenih problema, 10. revizija; Dijagnostički i statistički priručnik za duševne poremećaje, 5. izdanje; Psychodynamic psychiatry in clinical practice, iz 1994. godine (autor G. O. Gabbard); Therapeutic group analysis, iz 1984. (autor S. H. Foulkes) i Psihopatologija, iz 2011. godine (autor D. Begić).

RASPRAVA

Analizirajući zadnjih 10. godina članke objavljene u časopisu „Socijalna psihiatrija“ mogu se uočiti određena obilježja članaka, usmjerenja hrvatskih psihiatrijskih autora pa i rada Uredničkog odbora časopisa.

Promatrano razdoblje je prvo u kojem su na prvom mjestu pregledni radovi (do sada su to uvijek bili stručni radovi).

Usporedba rezultata ovoga istraživanja s onima iz prethodna dva desetljeća također može ukazati na neke trendove. Pri ovoj usporedbi treba napomenuti da se ta razdoblja razlikuju po broju svezaka časopisa. Naime, u prvom razdoblju izašlo je 10 volumena i 26 svezaka (12 pojedinačni brojevi i 14 dvobroji), u drugom razdoblju 11 volumena i 44 sveska, a u trećem razdoblju 10 volumena i 40 svezaka. To znači da u zadnjim dvama promatranim razdobljima nije tiskan ni jedan dvobroj što ne mora nužno govoriti o finansijskoj situaciji časopisa (koja inače nije povoljna, ali to bi bila tema za neku drugu raspravu), već prije svega o povećanom broju radova koji pristižu u časopis. To tako-

The most cited publications were the International Classification of Diseases and Related Health Problems, 10th revision; Diagnostic and Statistical Manual of Mental Disorders, 5th Edition; Psychodynamic psychiatry in clinical practice, 1994. (G. O. Gabbard); Therapeutic group analysis, 1984 (S. H. Foulkes), and Psihopatologija [Psychopathology], 2011 (D. Begić).

DISCUSSION

The analysis of the articles published in *Social Psychiatry* in the previous 10 years foregrounds some of their attributes, the orientation of Croatian authors psychiatrists, as well as that of the Journal's Editorial Board.

In the observed period, it was the first time that the majority of published articles were review articles (professional papers had predominated before this period).

The comparison of these results with those from the previous two decades also indicates to some changes in trends. One should take into account that the analyzed periods differ with respect to the number of volumes published. 10 volumes and 26 issues (12 single and 14 double) were published during the first period, 11 volumes and 44 issues during the second, and 10 volumes and 40 issues during the third period. This means that in the last two decades, not a single double issue was published, which does not necessarily point to the journal's financial position (not otherwise ideal, but this is something to be discussed on a different occasion), but to the increased number of articles received for publication. It also means that the number of issues published in the second and third analyzed period (18 and 14, respectively) was higher than that in the first analyzed period, which explains the increase in the absolute number of articles, authors, and institutions analyzed.

The main difference between the third and previous analyzed periods is the increase in the

đer znači da je u drugom i trećem analiziranim razdoblju objavljeno više svezaka (18, odnosno 14) nego u prvom, što objašnjava svaapsolutna povećanja u broju članaka, autora i ustanova koji su analizirani.

Ono što je glavna razlika prema ranijim razdobljima je povećanje članaka s temom iz psihologije, dok su na prva dva mesta i dalje radovi iz kliničke psihijatrije i psihoterapije.

Kada se promatra struktura radova prema autorima najviše je psihijatara (477, od toga su 108 dječji i adolescentni psihijatri). Na drugom su mjestu psiholozi (201), a onda slijede liječnici ostalih struka (48), najčešće neurolozi, internisti, specijalisti obiteljske medicine. Zanimljivo je da je manje radova čiji su autori specijalizanti psihijatrije, a više radova kojih su autori medicinske sestre i tehničari te studenti.

Ono što je značajan trend je povećanje broja psihologa među autorima. U prvoj analizi bilo je 10 autora psihologa, u drugoj 62, a sada ih je 201.

Najviše radova i dalje pristiže iz psihijatrijskih klinika (tu čak ni nema nekih velikih razlika u odnosu na prethodne analize). Promjena je jer su na drugom mjestu radovi s fakulteta. U prvoj analizi fakulteti nisu bili među prvih 5 ustanova (ušli su u kategoriju „Ostalo“), a u drugoj analizi je bilo na trećem mjestu 27 radova, a sada su na drugom mjestu sa 60 radova.

Na trećem su mjestu radovi iz kategorije „Ostalo“. Radovi koji potječu iz psihijatrijskih bolnica su na četvrtom mjestu, a u prethodnoj analizi su bili na drugom mjestu. Tome je pridonijela i činjenica da je Psihijatrijska bolnica Vrapče postala Klinikom 2010. godine, što je „premještalo“ veliki broj radova iz kategorije „Bolnice“ u „Klinike“.

Što se tiče ključnih riječi najzastupljenije su i dalje one iz područja kliničke psihijatrije, psihoterapije te dječje i adolescentne psihijatrije. Najčešće korištene ključne riječi su: djeca i adolescenti, demencija, depresija, kognitiv-

number of articles from the field of psychology, while the top-ranked are still the articles in the field of clinical psychiatry and psychotherapy.

Regarding authorship, most articles were authored by psychiatrists (477, of which 108 are child and adolescent psychiatrists). Psychologists come second (n=201), followed by physicians from other fields (n=48), mostly neurologists, internists, and primary care physicians. It is interesting that there were fewer articles authored by residents in psychiatry and more by nurses, technicians, and students.

A notable trend is the increase in the number of psychologists among the authors. There were 10 of them in the first period analyzed, 62 in the second, and 201 in the third.

The majority of articles still come from psychiatric clinics (there are no significant differences in that sense in comparison with the previous decades), followed by the articles coming from faculties, which is a significant change. In the first analysis, faculties were not even in the top 5 institutions (they were in the “Other” category), while in the second period, they came up third with 27 articles. Now, they rank second, with 60 articles.

The third most frequent contributions were articles in the “Other” category. The articles from psychiatric hospitals ranked fourth, while in the previous analysis they came second. This is in part due to the fact that the Vrapče Psychiatric Hospital became a clinic in 2010, which is why a significant portion of articles from the Hospitals “moved” to the Clinics category.

With respect to key words, most covered the areas of clinical psychiatry, psychotherapy, and child and adolescent psychotherapy. The most frequently used key words were children and adolescents, dementia, depression, cognitive-behavioral therapy, and schizophrenia. This is a change compared to the earlier period, when depression, schizophrenia, PTSD, group therapy, and child and adolescent psychiatry

no-bihevioralna terapija i shizofrenija. To je promjena u odnosu na ranije razdoblje (depre- sija, shizofrenija, PTSP, grupna terapija, dječja i adolescentna psihijatrija).

Među prvih pet ključnih riječi ušle su kognitivno-bihevioralna terapija i Alzheimerova bolest, kojih nije bilo na širem popisu naj- češćih riječi u prethodnom razdoblju. Među prvih 20 ključnih riječi, kojih nije bilo na rani- jem širem popisu sada su poremećaji ličnosti, obiteljsko nasilje, ovisnosti, stres, stavovi i adolescencija.

Ono što je obilježilo rad Uredničkog odbora je odluka da se od 2018. godine radovi objavljaju dvojezično (na hrvatskom i engleskom jeziku). To je dovelo do smanjivanja broja objavljenih radova i povećanja troškova, ali je učinilo časopis međunarodno prepoznatim. Časopis je u zadnjih nekoliko godina referiran u novim bazama, a *CiteFactor* mu je za 2020. godinu do- dijelio *impact factor* 1,45.

Dogadale su se i promjene u sastavu odbora. Njegov dugogodišnji član prof. dr. sc. Vlado Jukić preminuo je 2019. godine. Cijelo vrijeme rada u Uredničkom odboru doprinosio je podizanju kvalitete i ugleda časopisa. Bio je autor velikog broja radova, poticao je objavljivanje u njemu i značajno pomogao financiranje časopisa.

Urednički odbor će nastojati zadržati kvalitetu časopisa i uključivati ga u nove citirajuće baze. Objavljinjem radova dvojezično povećan je broj članaka koji pristižu, a istodobno je smanjen broj tiskanih radova, uz povećanje finan- cijskih izdataka.

were the most common. *Cognitive-behavioral therapy* and *Alzheimer's disease*, the two key words that had not been identified in the previous two analyses, were the five most commonly used key words in the previous decade. Other key words that were not present in a wider list of key words in earlier decades, yet making it into the top 20 in the present analysis, includ- ed identity disorders, domestic violence, addic- tions, stress, attitudes, and adolescence.

The decision that marked the work of the Editorial Board was to publish the articles bilingually (Croatian and English) from 2018 onwards. This lowered the number of published articles and increased the expenses, yet it also made the journal recognized internationally. During the last few years, *Socijalna Psihijatrija* became cited in new databases, and according to Cite- Factor, its impact factor for 2020 was 1,45.

There were also changes in the composition of the Editorial Board. Its long-serving mem- ber, Prof. Vlado Jukić, passed away in 2019. Throughout his career at the Board, he con- tributed to increasing the journal's quality and reputation. He authored a large number of articles, encouraged others to contribute, and significantly helped with fundraising.

The present Editorial Board will make all efforts to maintain the quality of the journal and to have it included into other citation databases.

The decision to publish the journal in two lan- guages has led to the increase in both expens- es and number of manuscripts received, but resulted in the decreased number of articles published.

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Pravila privlačnosti: Procjena privlačnosti osoba s poremećajima ličnosti

/ Rules of Attraction: Attraction Assessment of Individuals with Personality Disorders

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Ovim istraživanjem željelo se ispitati na koji se način procjenjuje privlačnost osoba koje imaju simptome poremećaja ličnosti te čine li to muškarci drugačije nego žene. Ispitivanje je provedeno na punoljetnim heteroseksualnim osobama. Istraživana je privlačnost osoba sa simptomima histrionskog, graničnog, opsativno-kompulzivnog, ovisnog i shizotipnog poremećaja ličnosti. Sudionici su procitali opise osoba s navedenim poremećajima i dali procjene o percepciji sviđanja odgovarajući na pet pitanja o svakoj opisanoj osobi koja se odnose na stupanj sviđanja i spremnosti ulaska u bliske odnose s opisanim osobama. Podatci su prikupljeni *online* metodom snježne grude. Pokazalo se da muškarci sustavno daju veće procjene na svakom pitanju. Muškarci najprivlačnijima procjenjuju žene s graničnim i ovisnim poremećajem ličnosti. Kao prijateljicu i dugoročnu partnericu najprikladnjima procjenjuju žene s ovisnim poremećajem ličnosti. Najviše su voljni ući u kratkoročnu vezu sa ženama koje imaju granični i histrionski poremećaj ličnosti. Žene najprivlačnijima procjenjuju muškarce s graničnim i ovisnim poremećajem ličnosti i njih najradije biraju za dugoročne partnere. Za prijatelje odabiru muškarce s ovisnim poremećajem ličnosti, a u kratkoročnu su se vezu najspremnije upustiti s muškarcima s graničnim poremećajem ličnosti.

/The aim of this study was to determine how attractiveness of persons with symptoms of personality disorders is assessed and whether there are differences between men and women. The study was conducted on adult heterosexual individuals. We investigated attractiveness of persons with the symptoms of histrionic, borderline, obsessive-compulsive, dependent and schizotypal personality disorders. Participants were given descriptions of persons with the above stated disorders and estimated their perceived likability by answering five questions relating to a degree of liking and willingness to enter into close relationships with each person described. Data were collected online using the snowball method. It was found that men systematically assigned higher scores to each question. Women with borderline and dependent personality disorders were assessed by men as most attractive and women with dependent personality disorder as most suitable for friendship or long-term partnership. Men were most willing to enter into a short-term relationship with women with borderline and histrionic personality disorders. Women were most attracted to men with borderline and dependent personality disorders and preferred to choose them for long-term partnerships. Women chose men with dependent personality disorder for friends and were most willing to enter into a short-term relationship with men with borderline personality disorder.

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UVOD

Kada govorimo o poremećajima ličnosti, govorimo o dugotrajnim modelima unutarnjeg doživljavanja i ponašanja koji izrazito odstupaju od očekivanja u kulturi doličnih osoba (1). Takvi modeli su nefleksibilni i pervazivni u širokom rasponu osobnih i socijalnih situacija te dovode do klinički značajnih teškoća u socijalnom, radnom i drugim područjima funkciranja. Također, modeli su stabilni i dugotrajni te se njihovi početci mogu prati unatrag do adolescencije ili rane odrasle dobi. Osobe koje imaju poremećaj ličnosti uglavnom ne osjećaju da imaju poteškoće s mentalnim zdravljem, ali imaju poteškoće u odnosu s okolinom. U tom svjetlu autorice ovog istraživanja su se zainteresirale za način na koji okolina vidi osobe s poremećajem ličnosti i način na koji se odnosi prema njima. Istraživanja na ovu temu nisu opsežna; najbliže istraživanom su studije privlačnosti osoba s osobinama mračne trijade koje su poslužile kao polazište za ovo istraživanje (2). U navedenom istraživanju proučavano je kako sudionici suprotnog spola percipiraju osobe s narcističkim poremećajem ličnosti, makijavliste i psihopate. Za svaki od navedenih opisa izmišljenih osoba s različitim poremećajima, sudionici su trebali procijeniti interpersonalnu privlačnost na različitim kriterijima (svidjanje, tjelesnu privlačnost, stupanje u prijateljske odnose i stupanje u dugoročne odnose).

INTRODUCTION

When we talk about personality disorders, we refer to long-term patterns of inner experience and behaviour that deviate markedly from the expectations of the culture in which these persons live (1). Such models are inflexible and pervasive, affecting a wide range of personal and social situations and leading to clinically significant difficulties in social, occupational, and other areas of life. Also, these models are stable and long lasting, and their onset can be traced back to adolescence or early adulthood. Persons with personality disorders generally do not feel that they have mental health problems, but they do experience difficulties in their relationships with the environment. In this light, the authors of this study were interested to see how the environment is perceived and treated persons with personality disorders. Research on this topic is not extensive; the closest to it are the studies on the attractiveness of persons with dark triad traits that served as the starting point for this study (2). The study examined how participants of the opposite sex perceived persons with narcissistic personality disorder, Machiavellians, and psychopaths. For each of the above descriptions of fictional individuals with various disorders, participants were asked to score their interpersonal attractiveness based on different criteria (liking, physical attractiveness, engaging in friendly relationships, and engaging in long-term re-

Iako su sve izmišljene osobe s poremećajima percipirane nepovoljno, osoba s narcističkim poremećajem ličnosti percipirana je povoljnije od makijavelista i psihopata. Zašto je narcistički poremećaj ličnosti procijenjen povoljnije? Kod narcističkog poremećaja ličnosti neke od osobina (šarmantnost, preuzimanje vodstva, smjelost) mogu biti poželjne, posebno u zapadnim kulturama i individualistički orijentiranim državama. Istraživači (3) postuliraju da osobe s narcističkim poremećajem ličnosti ostavljaju pozitivan prvi dojam, i da su osobine koje su kasnije u najvećoj mjeri neadaptivne, upravo one koje su na početku najprivlačnije (npr. dominantnost i polaganje prava na drugu osobu). Budući da se radi o kratkim opisima, moguće je da su sudionici pri čitanju opisa osoba s narcističkim poremećajem ličnosti, na osnovi informacija koje se mogu smatrati pozitivnima, pozitivnije percipirali takvu osobu (2).

Unatoč teškoćama intrapersonalnog i interpersonalnog funkcioniranja, neke osobe s poremećajima ličnosti su adaptivnije od drugih, što pokazuje nalaz navedenog istraživanja. Tako je cilj ovog istraživanja bio ispitati percepciju privlačnosti osoba s poremećajima ličnosti koji nisu do sada istraživani u tom kontekstu, a izabrani su granični, histrionski, ovisni, opsessivno-kompulzivni i shizotipni poremećaj ličnosti. Radi jednostavnosti istraživanja nisu uključeni svi poremećaji ličnosti, nego ovih pet koji predstavljaju sva tri klastera.

CILJ RADA

Cilj ovog istraživanja bio je ispitati privlačnost osoba s graničnim, histrionskim, ovisnim, opsessivno-kompulzivnim, i shizotipnim poremećajem ličnosti na kriterijima sviđanja, privlačnosti, spremnosti na upuštanje u prijateljske te kratkoročne i dugoročne romantične odnose. Očekuje se da će postojati statistički značajne razlike u pro-

lationships). Although all fictional persons with disorders were perceived unfavourably, persons with narcissistic personality disorder were perceived more favourably than Machiavellians and psychopaths. Why was narcissistic personality disorder scored more favourably? In narcissistic personality disorder some of the traits (charm, taking the lead, audacity) may be desirable, especially in Western cultures and individualistically oriented countries. Researchers (3) postulate that persons with narcissistic personality disorder leave a positive first impression, and that traits that are later largely nonadaptive are the most attractive at first (e.g., dominance and claiming rights to another person). Since only brief descriptions were given, it is possible that when reading the descriptions of persons with narcissistic personality disorder, and based on information that can be considered positive, participants perceived such persons in a more positive way (2).

Despite the difficulties of intrapersonal and interpersonal functioning, some persons with personality disorders are more adaptive than others, as shown by the previous findings. Thus, the aim of this study was to examine the perception of attractiveness of persons with personality disorders that have not been studied in this context so far, and hence borderline, histrionic, dependent, obsessive-compulsive and schizotypal personality disorders were selected. For the sake of simplicity, not all personality disorders were included, but these five, which represent all three clusters.

AIM OF THE STUDY

The aim of this study was to examine the attractiveness of persons with borderline, histrionic, dependent, obsessive-compulsive, and schizotypal personality disorder based on the criteria of liking, attractiveness, willingness to engage in friendly, short-term and long-term romantic relationships. It was expected that differences would

cjenama privlačnosti, sviđanja, upuštanja u prijateljske, kratkoročne i dugoročne romantične veze s osobama s navedenim poremećajima ličnosti, no zbog nedostatka istraživanja u ovom području, ne može se pretpostaviti smjer razlike. Također, očekuju se rodne razlike u procjenama.

METODE

Postupak

Istraživanje je provedeno *online* metodom snježne grude. Sudionici su pristupali anketnom upitniku putem web-poveznice koja je bila postavljena na društvene mreže, u prvom redu u studentske *Facebook* grupe. Sudionici su pitanii za demografske varijable te su potom ispunili kratki inventar ličnosti. Radi jednostavnosti istraživanja u obzir su uzeti samo odgovori heteroseksualnih sudionika. Svakom sudioniku je zatim prezentirano pet opisa osoba suprotnog spola, indikativnih za određeni poremećaj ličnosti, za koje su davali procjene.

Sudionici

U istraživanju je sudjelovao 641 sudionik, od toga 73,9 % čine žene. Sudionici su većinom mlađe odrasle dobi – 69,2 % ima između 18 i 25 godina. Na pitanje o najvišem završenom stupnju obrazovanja većina sudionika se izjasnila da je završila srednju školu (64 %), što može odražavati velik postotak studenata u istraživanju. Još jedna od demografskih karakteristika uzetih u obzir je status romantične veze za koji se pokazalo da je 47,3 % sudionika slobodno, a 35,6 % ih je u vezi.

Mjerni instrumenti

Sudionicima su prikazani opisi osoba s graničnim, histrionskim, ovisnim, OKP-om, i shizotipnim poremećajem ličnosti konstrui-

be statistically significant in the scores assigned to attractiveness, liking, and starting friendly, short-term and long-term romantic relationships with persons with these personality disorders, but due to a lack of research in this area, the direction of difference could not be assumed. Gender differences were also expected in the scores.

METHODS

Method

The study was conducted online using the snowball method. The participants accessed the survey questionnaire via a web link that was posted on social networks, primarily on student Facebook groups. The participants were asked to provide their demographic data after which they filled in a brief personality inventory. To simplify the study, we considered only the responses of heterosexual participants. Each participant was then presented with five descriptions of persons of the opposite sex, indicative of a particular personality disorder, and asked for assessment.

Participants

The study included 641 participants, of which 73.9% were women. The participants were mostly younger adults, i.e. 69.2% of participants were aged between 18 and 25 years. When asked about the highest completed level of education, the majority of participants stated that they had completed secondary education (64%), which may reflect a large percentage of students participating in the survey. Another demographic characteristic taken into account was the romantic relationship status indicating that 47.3% of participants were single and 35.6% were in a relationship.

Measuring instruments

The participants were presented with descriptions of individuals with borderline, histrionic, dependent, obsessive-compulsive, and schizotypal personality disorders constructed for the

TABLICA 1. Demografski podaci uzorka (N=641)
TABLE 1. Sample demographics (N = 641)

55

		N	%
Spol / Sex	Muški / Male	167	26.1
	Ženski / Female	474	73.9
Dob / Age	18-25	444	69.2
	26-40	110	17.2
	>40	87	13.6
Stupanj obrazovanja / Education degree	Osnovna škola / Elementary School	3	0.5
	Srednja škola / Secondary school	410	64.0
	Viša škola ili fakultet / Higher education or university	208	32.4
	Poslijediplomski studij / Postgraduate studies	20	3.1
Status veze / Relationship status	Slobodan/slobodna / Single	303	47.3
	U vezi / In a relationship	228	35.6
	U braku / Married	91	14.2
	Rastavljen/rastavljena / Divorced	16	2.5
	Udovac/udovica / Widowed	3	0.5

rani u svrhu ovog istraživanja. Opise osoba s različitim poremećajem ličnosti su za svrhu istraživanja konstruirale autorice vodeći se literaturom iz područja kliničke psihologije (1,4). Prije provođenja istraživanja opisi osoba su poslani psiholozima koji su trebali prepoznati koji je poremećaj ličnosti opisan. Psiholozi su pravilno kategorizirali svaki opis, što upućuje na njihovu pojavnju i sadržajnu valjanost te su kao takvi uvršteni u anketni upitnik (opisi se nalaze u Prilogu). Radi očuvanja jednostavnosti i smanjenja vjerojatnosti odustajanja od sudjelovanja u istraživanju odabранo je pet poremećaja ličnosti: granični, ovisni, shizotipni, obsesivno-kompulzivni i histrionski. Odabranim poremećajima obuhvaćena su sva tri klastera poremećaja ličnosti.

Ispod svakog opisa sudionici su trebali na petostupanjskoj ljestvici Likertovog tipa procijeniti privlačnost, sviđanje i spremnost na upuštanje u prijateljske, kratkoročne i dugoročne romantične odnose s tim osobama.

purpose of this study. Descriptions of persons with various personality disorders were constructed for the purpose of this study by the authors based on the literature in the field of clinical psychology (1, 4). Prior to conducting the study, descriptions of persons were sent to psychologists who had to identify a description of the personality disorder in question. Psychologists have correctly categorized each description, which has confirmed their face and content validity. As such, the descriptions were included in the survey questionnaire (see details in the Appendix). To maintain simplicity and reduce the likelihood of withdrawing from the study, five personality disorders were selected: borderline, dependent, schizotypal, obsessive-compulsive, and histrionic. The selected disorders included all three clusters of personality disorders.

The participants were asked to rate attractiveness, liking, and willingness to engage in friendly, short-term or long-term romantic relationships with the described individuals on a five-point Likert-type scale.

Provedene statističke analize

Jednosmjerne analize varijance za zavisne uzorke provedene su kako bi se utvrdila privlačnost osoba s različitim poremećajima ličnosti. Provedeno je više analiza varijance za svaki od kriterija (sviđanje, privlačnost, spremnost na ulazak u prijateljske, kratkoročne i dugoročne veze) te su između različitih razina varijabli izračunati *post-hoc* testovi.

Statistical analyses

One-way analysis of variance for dependent samples was performed to determine attractiveness of individuals with various personality disorders. Several analyses of variance were performed for each of the criteria (liking, attractiveness, willingness to enter into friendly, short-term or long-term relationships) and post-hoc tests were calculated between different levels of variables.

REZULTATI

Rezultati na cjelokupnom uzroku ($N=641$, sl. 1) ukazuju na to da se statistički značajno najviše procjene za kriterij prijateljstva daju osobama s ovisnim poremećajem ličnosti. Najviše procjene na kriterijima privlačnosti i ulaska u kratkoročnu vezu daju se osobama s graničnim poremećajem ličnosti. Na kriterijima sviđanja i ulaska u dugoročnu vezu

RESULTS

The results on the overall sample ($N = 641$, Fig. 1) indicate that statistically significantly highest scores for the friendship criterion were given to persons with dependent personality disorder. The highest scores for the criteria of attractiveness and entering into a short-term relationship were given to persons with borderline personality disorder. Persons with border-

TABLICA 2. Prikaz deskriptivnih podataka i završnih rezultata jednosmjerne analize varijance na mjerjenim kriterijima privlačnosti za osobe s različitim poremećajima ličnosti ($N=641$)

TABLE 2. Presentation of descriptive data and final results of one-way analysis of variance on the measured attractiveness criteria for people with various personality disorders ($N = 641$)

	Granični / Marginal (G)	Opsesivno-kompulzivni / Obsessive-compulsive (OK)	Histrionski / Histrionic (H)	Ovisni / Dependent (O)	Shizotipni / Schizotypal (S)	F-omjer / F-ratio (df)	p	η^2	Razlike među skupinama / Inter-group differences
Varijable / Variables	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)				
Sviđanje / Liking	3.0 (1.02)	2.5 (1.03)	1.7 (0.83)	2.9 (1.01)	2.6 (1.12)	212.42 (4/2560)	<.001	.25	G>OK>H G>S OK<O H<O; H<S O>S
Prijatelj / Friend	3.2 (1.12)	2.8 (1.11)	1.9 (1.01)	3.6 (1.06)	2.9 (1.20)	256.75 (4/2560)	<.001	.29	G>OK>H O>G>S OK<O H<O; H<S
Privlačnost / Attractiveness	2.7 (1.10)	2.2 (1.03)	1.8 (0.98)	2.5 (1.09)	2.2 (1.16)	85.93 (4/2560)	<.001	.12	G>OK>H G>O>S OK<O H<O; H<S
Kratkoročna veza / Short-term relationship	2.5 (1.37)	2.0 (1.25)	2.1 (1.42)	2.1 (1.28)	2.1 (1.34)	31.41 (4/2560)	<.001	.05	G>OK G>H=O=S OK<O
Dugoročna veza / Long-term relationship	2.1 (1.18)	1.8 (1.03)	1.3 (0.60)	2.2 (1.23)	1.7 (1.03)	106.21 (4/2560)	<.001	.14	G>OK>H G>S OK<O O>S>H



TABLICA 3. Prikaz deskriptivnih podataka i završnih rezultata jednosmjerne analize varijance na mjerjenim kriterijima privlačnosti za osobe s različitim poremećajima ličnosti (N=474, ženski poduzorak)

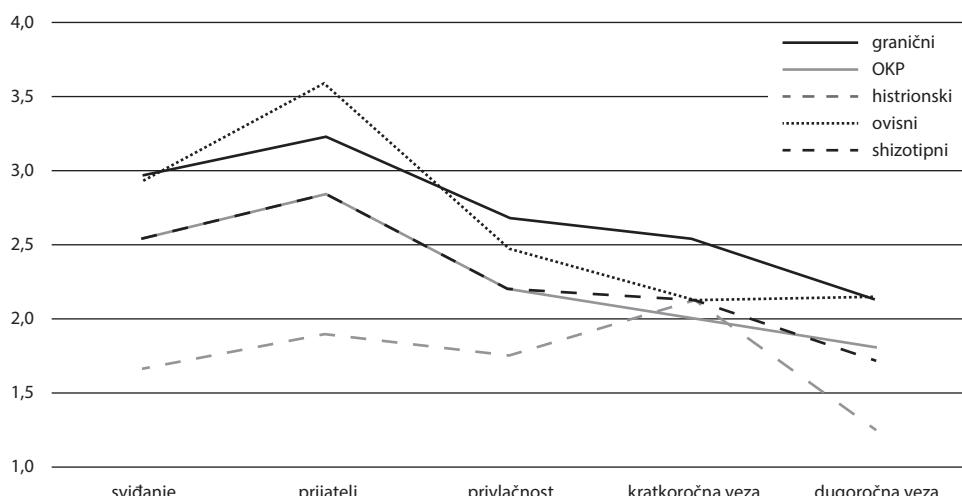
TABLE 3. Descriptive data and final results of one-way analysis of variance on the measured criteria of attraction for people with various personality disorders (N = 474, female sub-sample)

	Granični / Marginal (G)	Opsesivno-kompulzivni / Obsessive-compulsive (OK)	Histrionski / Histrionic (H)	Ovisni / Dependent (O)	Shizotipni / Schizotypal (S)	F-omjer / F-ratio (df)	p	η^2	Razlike među skupinama / Differences between the groups
Varijable / Variables	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)				
Sviđanje / Liking	2.9 (1.02)	2.4 (1.00)	1.6 (0.81)	2.9 (1.02)	2.5 (1.02)	154.42 (4/1892)	<.001	.25	G>OK>H G<S O>OK>H O>S S<H
Prijatelj / Friend	3.2 (1.10)	2.8 (1.12)	1.9 (1.01)	3.5 (1.09)	3.5 (1.09)	184.65 (4/1892)	<.001	.12	O>G>OK>H S<G<O S>H
Privlačnost / Attractiveness	2.5 (1.09)	2.01 (0.95)	1.6 (0.88)	2.3 (1.07)	2.1 (1.09)	65.53 (4/1892)	<.001	.28	G>O>OK>H S<O>G S>H
Kratkoročna veza / Short-term relationship	2.3 (1.27)	1.7 (1.02)	1.7 (1.09)	1.8 (1.04)	1.8 (1.13)	31.51 (4/1892)	<.001	.06	G>OK G>H G>O G>S
Dugoročna veza / Long-term relationship	2.0 (1.15)	1.7 (0.94)	1.2 (0.54)	1.97 (1.18)	1.6 (0.92)	68.98 (4/1892)	<.001	.13	G>OK>H O>S>H OK<O S<G

TABLICA 4. Prikaz deskriptivnih podataka i završnih rezultata jednosmjerne analize varijance na mjerjenim kriterijima privlačnosti za osobe s različitim poremećajima ličnosti (N=167, muški poduzorak)

TABLE 4. Presentation of descriptive data and final results of one-way analysis of variance on the measured attractiveness criteria for people with various personality disorders (N = 167, male sub-sample)

	Granični / Marginal (G)	Opsesivno-kompulzivni / Obsessive-compulsive (OK)	Histrionski / Histrionic (H)	Ovisni / Dependent (O)	Shizotipni / Schizotypal (S)	F-omjer / F-ratio (df)	p	η^2	Razlike među skupinama / Inter-group differences
Varijable / Variables	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)				
Sviđanje / Liking	3.2 (1.00)	2.8 (1.07)	1.8 (0.87)	3.2 (0.95)	2.7 (1.23)	58.99 (4/664)	<.001	.262	G>OK>H O>S>H G=O OK=S
Prijatelj / Friend	3.3 (1.13)	3.0 (1.09)	2.0 (1.00)	3.7 (0.97)	3.0 (1.27)	72.46 (4/664)	<.001	.30	O>G>OK>H OK=S
Privlačnost / Attractiveness	3.1 (1.05)	2.7 (1.11)	2.2 (1.12)	3.0 (0.95)	2.7 (1.23)	21.14 (4/664)	<.001	.11	G>OK>H O>S>H G=O OK=S
Kratkoročna veza / Short-term relationship	3.4 (1.32)	3.0 (1.34)	3.3 (1.51)	3.2 (1.30)	3.1 (1.40)	5.73 (4/664)	<.001	.03	G>OK G>S OK<H
Dugoročna veza / Long-term relationship	2.5 (1.22)	2.2 (1.17)	1.4 (0.73)	2.7 (1.20)	2.1 (1.202)	40.19 (4/664)	<.001	.20	G>S>H G=O S=OK



SLIKA 1. Grafički prikaz procjena privlačnosti različitih poremećaja ličnosti (N=641, Ž i M)

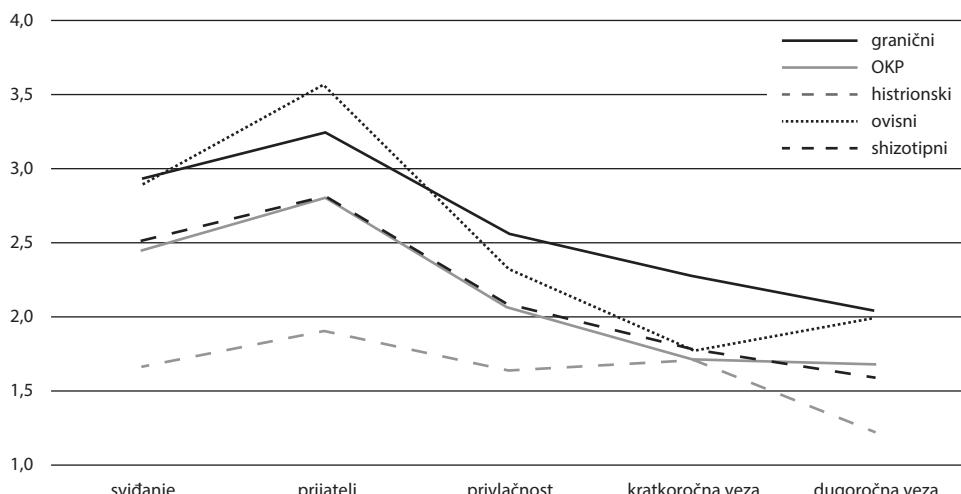
FIGURE 1. Graphic presentation of scores assigned to attractiveness of various personality disorders (N = 641, F and M)

daju se najviše procjene osobama s graničnim i ovisnim poremećajem ličnosti, a među njima nema statistički značajnih razlika. Srednje procjene na svim kriterijima doble su osobe s OKP-om ličnosti i shizotipnim poremećajem ličnosti između kojih nema statistički značajnih razlika ni na jednom kriteriju privlačnosti. Najniže procjene su davane osobama s histrionskim poremećajem ličnosti, osim u muškom poduzorku na kriteriju ulaska u kratkoročnu vezu gdje te osobe dobivaju vrlo visoke procjene.

Na poduzorku žena (N=474, sl. 2) dobiveni su slični rezultati kao i na cijelokupnom uzorku, ali vidljiv je pad u procjenama danim za sklonost stupanja u kratkoročne veze. Ipak, žene su statistički značajno spremnije na ulazak u kratkoročnu vezu s osobom koja ima granični poremećaj ličnosti, nego s osobama s ostalim poremećajima. I dalje je vidljiv trend najviših procjena privlačnosti ovisnog i graničnog poremećaja ličnosti, a najnižih histrionskog, na gotovo svim kriterijima. Na kriteriju stupanja u kratkoročnu vezu, osobe s histrionskim poremećajem ličnosti i opsesivno-kompulzivnim poremećajem ličnosti procijenjene su najmanje privlačnima i među tim procjenama nema statistički značajne razlike.

line and dependent personality disorders were given highest scores on the criteria of liking and entering into a long-term relationship, without statistically significant differences between the two. Mean scores for all criteria were given to individuals with obsessive-compulsive and schizotypal personality disorders and there were no statistically significant differences between the two on any of the attractiveness criteria. The lowest scores were assigned to persons with histrionic personality disorder, except for the male sub-sample on the criterion of entering into a short-term relationship, in which persons with histrionic personality disorder were assigned very high scores.

In the female sub-sample (N = 474, Fig. 2), similar results were obtained as in the overall sample but with a noticeable decrease in scores assigned to the tendency to enter into short-term relationships. Nevertheless, women are statistically significantly more willing to enter into a short-term relationship with a person with a borderline personality disorder than with persons with other disorders. Almost all criteria indicated a visible trend where highest scores were assigned to attractiveness of dependent and borderline personality disorders and lowest to histrionic personality disorder. Regarding

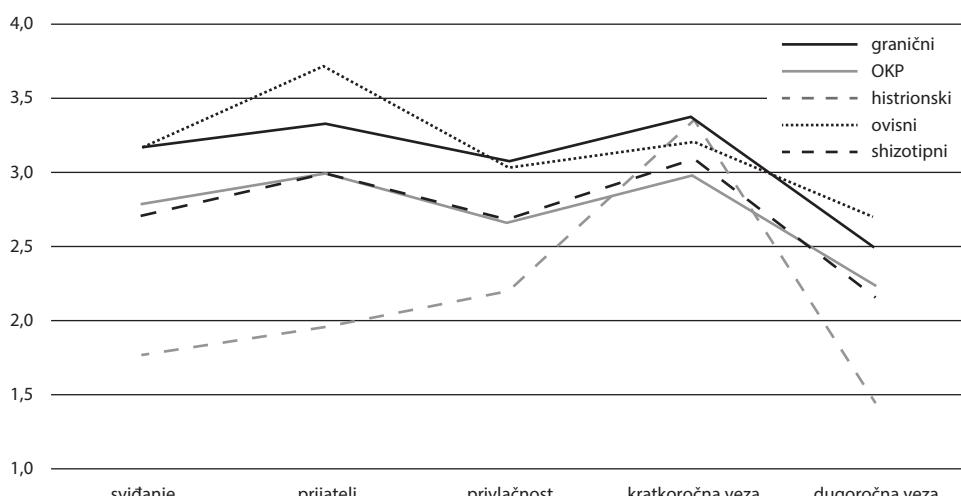


SLIKA 2. Grafički prikaz procjena privlačnosti različitih poremećaja ličnosti na ženskom poduzorku. (N=474)

FIGURE 2. Graphic presentation of scores assigned to attractiveness of various personality disorders on the female sub-sample. (N=474)

Na poduzorku muškaraca (N=167, sl. 3) vidljive su razlike u odnosu na cijelokupni uzorak i poduzorak žena. Muškarci su u prosjeku davali više procjene privlačnosti i sklonosti stupanja u kratkoročne i dugoročne veze sa svim opisanim osobama, nego što su ih davale žene. To je naročito vidljivo za kriterij stupanja u kratkoročne veze. Na ovom kriteriju muškarci daju visoke procjene osobama s histrionskim poremećajem ličnosti, koje su se

entering into a short-term relationship criterion, persons with histrionic and obsessive-compulsive personality disorders were assessed as the least attractive. There was no statistically significant difference between the scores. The male sub-sample (N = 167, Fig. 3) showed differences in relation to the overall sample and the female sub-sample. On average, compared to women, men assigned higher scores to attractiveness and tendency to enter into short-



SLIKA 3. Grafički prikaz procjena privlačnosti različitih poremećaja ličnosti na muškom poduzorku (N=167)

FIGURE 3. Graphic presentation of scores assigned to attractiveness of various personality disorders on the male sub-sample (N = 167)

pokazale najmanje privlačnima na svim ostalim kriterijima.

RASPRAVA

Istraživanja pokazuju da društveni životi osoba s poremećajima ličnosti mogu biti narušeni zbog njihovih karakterističnih odstupanja u crtama ličnosti (5,6). Zbog toga nas je zanimalo kako drugi percipiraju te osobe i koliko ih općenito procjenjuju privlačnima te koliko su s njima spremni ući u prijateljski ili romantični odnos.

Općenito govoreći, rezultati ukazuju na to da sudionici nisu davali visoke procjene na kriterijima privlačnosti. Najprivlačnijima su se pokazale osobe s graničnim i ovisnim poremećajem ličnosti. Takvi nalazi bi se mogli objasniti interpersonalnom komponentom koja je izražena kod osoba s navedenim poremećajima. Osobe s graničnim poremećajem se vežu za druge i emocionalno investiraju u socijalne odnose, a osobe s ovisnim poremećajem svoj identitet grade na odnosima s drugima (1). Pretpostavka je da su sudionici prepoznali prisutnost interpersonalne komponente koja ih je privukla te su posljedično davali više procjene kod opisa osoba s navedenim poremećajima ličnosti. S druge strane, takva interpersonalna dimenzija izostaje kod osoba sa shizotipnim poremećajem ličnosti koje su usmjereni na sebe, osoba s histrionskim poremećajem ličnosti koje u drugima često traže publiku za svoju dramatičnost i osoba s OKP-om ličnosti koje su vrlo usmjereni na red i strukturu te ponekad zanemaruju socijalne odnose (1).

Istraživanja pokazuju da su muškarci spremniji na ulazak u kratkoročne romantične veze (7) što je u skladu s dobivenim nalazima ovog istraživanja. Porast procjena o ulasku u kratkoročnu vezu s osobom s histrionskim poremećajem na muškom uzorku može se objasniti činjenicom

term and long-term relationships with all persons described. This is particularly evident for the criterion of entering into short-term relationships. On this criterion men assigned high scores to persons with histrionic personality disorder who were found to be the least attractive on all other criteria.

DISCUSSION

Research shows that social lives of persons with personality disorders can be disrupted due to their characteristic deviations in personality traits (5,6). Therefore, we were interested to see how others perceived these persons, how attractive they generally found them, and how willing they were to engage in a friendly or romantic relationship with them.

Generally speaking, the results indicate that participants did not assign high scores based on the attractiveness criteria. Persons with borderline and dependent personality disorders proved to be the most attractive. Such findings could be explained by the interpersonal component expressed in persons with these disorders. Persons with borderline disorder bond with others and emotionally invest in social relationships, and persons with dependent disorder build their identity on relationships with others (1). It is assumed that participants recognized the presence of the interpersonal component that attracted them and consequently assigned higher scores when describing persons with the aforementioned personality disorders. On the other hand, such an interpersonal dimension is absent in persons with schizotypal personality disorder who are often self-centered, persons with histrionic personality disorder who often seek audiences for their drama in others, and persons with obsessive-compulsive personality disorder who are very focused on order and structure and sometimes neglect social relationships (1).

Research shows that men are more willing to engage in short-term romantic relationships

da je u opisu naglašeno da ta osoba izrazito brine o svom izgledu, a prema evolucijskom objašnjenju izgled je ključna varijabla u odabiru partnera za kratkoročnu vezu (7).

Što se tiče ispitivanih kriterija privlačnosti, najviše procjene su davane na kriteriju prijateljstva, a najniže na kriteriju dugoročne veze. Pitanja koja se odnose na različite kriterije sviđanja namjerno su postavljena redoslijedom: sviđanje, prijateljstvo, privlačnost, kratkoročna veza, dugoročna veza. Očekivano je da će procjene od kriterija do kriterija biti postupno sve niže kako kriteriji predstavljaju sve bliskije i intimnije odnose. Takav je trend i dobiven, uz iznimku kriterija sviđanja i prijateljstva, gdje su sustavno više procjene davane za kriterij prijateljstva. Razlog tome bi mogao biti da se u hrvatskom jeziku riječ „sviđanje“ najčešće povezuje s romantičnim sviđanjem pa je prijateljstvo zapravo platoniski odnos i kao takvo dobiva više procjene, a sviđanje se već doživljava kao potencijal za razvitak romantičnog odnosa koji ukazuje na veću prisnost. Budući da je kriterij nazvan ‘sviđanje’, kao najbliži prijevod pitanja postavljenog u izvornom istraživanju (engl. „How likeable is this person?“), moguće je da prijevod nije bio ekvivalent izvornom pitanju, te je rezultirao nižim procjenama od procjena na kriteriju prijateljstva. U dalnjim istraživanjima trebala bi se istražiti prikladnost različitih opcija prevodenja navedenog pitanja.

Nalazi pokazuju da su ljudi općenito najspremniji razviti prijateljski odnos s drugom osobom, čak i ako prepoznaju da ima neke neuobičajene osobine i obrasce ponašanja. Ipak, oko ljubavnih odnosa su oprezniji te na kriteriju stupanja u dugoročnu vezu primjećujemo najniže procjene. Dakle, čini se da kad razmatraju s kime će ući u vezu, ipak imaju strože kriterije i oprezniji su s ljudima koji pokazuju neke neuobičajene osobine. Pokazalo se da su žene podjednako oprezne pri stupanju u kratkoročne i dugoročne veze, no muškarci su spremni

(7), which is consistent with the findings of our study. The increase in the scores for engaging in a short-term relationship with a person with histrionic disorder in the male sample can be explained by the fact that the description emphasizes that person is extremely concerned about their appearance, and according to evolutionary explanation appearance is the key variable in choosing a short-term relationship partner (7).

Regarding the examined criteria of attractiveness, the highest scores were assigned on the criterion of friendship, and the lowest on the criterion of long-term relationship. Questions relating to the different criteria of liking were intentionally asked in the following order: liking, friendship, attractiveness, short-term relationship, long-term relationship. It was expected that the scores would gradually decrease from one criterion to the other as the criteria progressed to represent closed and more intimate relationships. The results of this study showed that trend, with the exception of the criteria of liking and friendship, where systematically higher scores were assigned on the criterion of friendship. The reason for this could be that in the Croatian language, the word “liking” is most often associated with romantic liking, so friendship is actually a platonic relationship and, as such, it received higher scores, whereas liking is already perceived as a potential for developing a romantic relationship that indicates greater intimacy. Since the criterion was termed “liking”, as the closest translation of the question asked in the original study (English - “How likeable is this person?”), it is possible that the translation was not equivalent to the original question, and it resulted in lower scores than the scores based on the friendship criterion. Further research should explore the appropriateness of different translation options for this issue.

The findings show that people are generally most willing to develop a friendly relationship with another person, even if they recognize that the person has some unusual traits and patterns

upustiti se u kratkoročnu vezu čak i s onim ženskim osobama kojima su dali nisku procjenu na kriterijima privlačnosti i sviđanja. Ovakav nalaz u skladu je s evolucijskom hipotezom da su muškarci skloniji upuštanju u kratkoročne seksualne odnose s više partnerica (kako bi imali što više potomaka), dok žene češće traže jednog dugoročnog partnera (kako bi imale manji broj potomaka koji bi dobili potrebnu brigu uključenog oca) (7).

Uz navedene spoznaje, važno je razmotriti i manjkavosti provedenog istraživanja, kao i načine na koje bi se mogao poboljšati postupak istraživanja ovakvih i sličnih istraživačkih problema. Jedan od nedostataka je nereprezentativnost uzorka; nereprezentativnost je posljedica upotrijebljene tehnike prikupljanja podataka, *on-line* anketne metode. Takav način prikupljanja podataka rezultirao je većim udjelom ženskog i mlađeg stanovništva u uzorku. Jedan od čestih nedostataka provodenja istraživanja *online* metodom jest pristranost u uzorkovanju – oni koji se odazovu na poziv na anketu razlikuju se od onih koji ne odgovore na poziv (8). Problematičnost s većim udjelom mlađih osoba u uzorku jest njihova veća spremnost na upuštanje u kratkoročne seksualne odnose (9) u odnosu na osobe starije životne dobi, pa su rezultati na procjenama spremnosti upuštanja u seksualne odnose potencijalno pomaknuti prema višim vrijednostima. Postavlja se pitanje jesu li mlađe osobe, osim spremnosti na upuštanje u kratkoročne seksualne odnose, spremnije i na upuštanje u prijateljske odnose, kao i na davanje viših procjena sviđanja i privlačnosti. Budući da su ekstraverzija i otvorenost k iskustvima u mlađoj životnoj dobi na vrhuncu, a s godinama se smanjuju (10), potencijalno su sve procjene sviđanja i spremnosti na upuštanje u veze pomaknute prema višim vrijednostima. Možemo pretpostaviti da bi uzorkovanjem pojedinaca koji dobro reprezentiraju populaciju procjene bile još i niže,

of behaviour. However, they are more cautious about romantic relationships, and we noticed the lowest scores on the criterion of engaging in a long-term relationship. Therefore, it seems that when considering who they will get into a relationship with, they still have stricter criteria and are more careful with persons who show some unusual traits. Women were shown to be equally cautious when engaging in short-term and long-term relationships, but men were willing to engage in short-term relationships even with those women to whom they assigned a lower score on the criteria of attractiveness and liking. This finding is consistent with the evolutionary hypothesis that men are more likely to engage in short-term sexual relationships with multiple partners (to have as many offspring as possible), while women are more likely to seek one long-term partner (to have fewer offspring who will receive the necessary parental care) (7).

In addition to the above findings, it is important to consider the shortcomings of our study, as well as the ways in which methods for investigating such and similar research problems could be improved. One of the disadvantages is the lack of representativeness; this is a consequence of the data collection technique used, i.e. online survey method. This way of collecting data resulted in a higher share of women and younger population in the sample. One of the common disadvantages of conducting research using the online method is bias in sampling - those who respond to a survey invitation differ from those who do not respond to the invitation (8). The problem with the higher proportion of young persons in the sample is their greater willingness to engage in short-term sexual intercourse (9) compared to older persons, so the results in the assessments of sexual engagement are potentially shifted towards higher values. The question arises as to whether younger persons, in addition to being willing to engage in short-term sexual relationships, are also more willing to engage in friendly relationships, as well as to give higher scores based on the criteria of liking and attractiveness. As extraversion and open-

iako se i na ovom uzorku pokazuju u prosjeku niskima.

Rodna struktura uzorka također nije reprezentativna za populaciju. Žene čine gotovo tri četvrtine uzorka. Potencijalna pristranost u rezultatima se pokušala izbjegći statističkim analiziranjem dva poduzorka – muškog i ženskog. Takva je podjela pokazala da je kod pojave kao što su istraživanja privlačnosti važno uzeti u obzir varijablu spola – u poduzorcima su se pokazale različite tendencije, posebno kod kriterija upuštanja u kratkoročne veze.

U istraživanju nije kontroliran utjecaj statusa veze sudionika, što je moglo utjecati na rezultate. Moguće je da su sudionici koji su u vezi ili u braku označavali da neće ući u kratkoročnu, ni dugoročnu romantičnu vezu s opisanom osobom, ne zato što im nije privlačna, nego zato što su zauzeti. Zbog toga je moguće da su procjene spremnosti na stupanje u romantične odnose s opisanim osobama u prosjeku niže nego što bi bile da je kontroliran utjecaj statusa veze sudionika. Upravo se tu nalazi prijedlog za buduća istraživanja privlačnosti osoba s određenim poremećajima – potrebno je kontrolirati utjecaj statusa veze kako procjene ne bi bile maskirane drugim, za procjenu irelevantnim varijablama ili u uputi jasnije naznačiti da se od sudionika traži da zamisle hipotetsku situaciju ulaska u odnos s opisanom osobom, pritom zanemarujući svoj trenutni status veze.

Nalazi ovog istraživanja mogli bi biti korisni u modernom kontekstu uspostavljanja bliskih odnosa putem društvenih mreža i aplikacija za upoznavanje. Naime, putem društvenih mreža o drugoj se osobi može steći prilično točan dojam, o kojem ovisi hoće li se odnos preseliti i na komunikaciju uživo (11). Ovo istraživanje pokazuje da ljudi općenito nisu visoko zainteresirani za razvijanje odnosa s pojedincima koji imaju karakteristike poremećaja ličnosti. Nadalje, prepoznaju se i poželjne osobine kod

ness to experiences peak at a younger age and then decline over the years (10), potentially all scores assigned to liking and willingness to engage in relationships have shifted toward higher values. We can assume that by sampling individuals who would represent the population well, the scores would be even lower, although in this sample they also proved to be lower on average.

The gender structure of the sample is also not representative of the population. Women make up almost three-quarters of the sample. Potential bias in the results was attempted to be avoided by statistical analysis of two subsamples - male and female. Such a division has shown that it is important to consider the gender variable in phenomena such as attractiveness research - different tendencies were shown in the subsamples, especially in the criteria for engaging in short-term relationships.

The study did not control for the impact of participants' relationship status, which could have affected the results. It is possible that participants who were in a relationship or marriage indicated that they would not engage in a short-term or long-term romantic relationship with the person described, not because they were not attracted to them, but because they were already in a relationship. Therefore, it is possible that the scores on the criterion of readiness to engage into romantic relationships with the described persons are on average lower than they would be if the influence of the participants' relationship status was controlled for. This is where the proposal for future research on the attractiveness of persons with certain disorders lies - it is necessary to control for the impact of relationship status so that assessments are not masked by other, for the scoring irrelevant variables or to indicate more clearly in the instructions that participants are asked to imagine a hypothetical situation of engaging in a relationship with the described person, while neglecting their current relationship status.

The findings of this study could be useful in the modern context of establishing close relation-

opisanih osoba zbog čega su se opisi osoba s graničnim i ovisnim poremećajem ličnosti istaknuli kao najprivlačniji. U kontekstu aplikacija za upoznavanje to znači da su njihovi korisnici u mogućnosti na temelju kratkog opisa druge osobe, njenih fotografija, i pisane komunikacije procijeniti je li im ta osoba kompatibilna i privlačna, baš kao što su to uspjeli u našem istraživanju, koje je nudilo manje informacija o svakoj osobi.

Zaključno, istraživanje je pokazalo da postoje statistički značajne razlike u procjeni privlačnosti osoba s različitim poremećajima ličnosti, pri čemu se najprivlačnjima procjenjuju osobe s graničnim i ovisnim poremećajem ličnosti što objašnjavamo prisutnošću poželjnih osobina važnih za interpersonalne odnose kod osoba koje boluju od tih poremećaja.

PRILOZI

Granični poremećaj ličnosti

Ivana lako pronalazi nove prijatelje i vrlo brzo postaje bliska s njima. Na prošloj zabavi upoznala je dvije nove prijateljice koje je ubrzo proglasila jednima od najdražih ljudi koje poznaje. No, jučer, nakon što je vidjela dvije nove prijateljice kako se druže bez nje zaključuje kako se ljudima nikada ne može vjerovati i piše im uvredljive poruke. Što se tiče ljubavnog života, partneri ju smatraju zavodljivom i strastvenom, ali je i u tom području sklona brzom uspostavljanju i prekidanju odnosa. Upušta se u seksualne odnose nedugo nakon upoznavanja osobe i partnere napušta kada ju, na neki način, nemamjerno povrijede i kada se razočara u njih. Vrlo je emocionalna i jasno izražava svoje osjećaje, no ponekad ih teško kontrolira. Kada je sretna ljudima prenosi pozitivnu energiju, lako se rasplače gledajući filmove, a kada se naljuti, ne suzdržava se od vrijedanja. Nepredvidiva je i spontana. U svom profesionalnom životu novinarke promijenila je više novinskih

ships through social networks and dating applications. Specifically, through social networks, a fairly accurate impression can be gained about another person, which depends on whether the relationship will move to live communication (11). This study shows that persons are generally not highly interested in developing relationships with individuals who have personality disorder characteristics. Furthermore, desirable traits in the described persons are also recognized, which is why the descriptions of persons with borderline and dependent personality disorder have been highlighted as the most attractive. In the context of dating apps, this means that their users are able to assess whether a person is compatible and attractive based on a brief description of that person, their photos, and written communication, just as they did in our survey, which offered less information about each person.

In conclusion, our study showed statistically significant differences in the assessed attractiveness of persons with various personality disorders, with persons with borderline and dependent personality disorders being the most attractive, which was explained by the presence of desirable traits important for interpersonal relationships in persons with these disorders.

APPENDIX

Borderline personality disorder

Ivana easily makes new friends and very quickly becomes close with them. At the last party she attended, Ivana met two new friends and soon declared that they were among the dearest people she knew. However, yesterday, after seeing two new friends hanging out without her, she concluded that people can never be trusted, and she started sending them offensive messages. As for her love life, her partners think that she is seductive and passionate, but even in that area, she tends to enter into and end relationships abruptly. She engages in sexual relations

agencija u kratkom razdoblju. Razlozi koje navodi za često davanje otkaza uključuju nepravedno tretiranje i nedovoljno priznanje za rad koji obavlja.

Opsesivno-kompulzivni poremećaj ličnosti

Luki je važan red i organizacija te pokušava isplanirati svaku minutu svog dana. Burno reagira na neočekivane događaje koji narušavaju njegov isplanirani raspored. Provodi sate u organizaciji ormara i mapa na računalu kao i u čišćenju stana do besprijeckornosti. Dok obavlja te aktivnosti, potpuno se zanese i zna zanemariti druge važne poslove. Po zanimanju je knjižničar i uživa u arhiviranju građe i zadatke nerado prepušta drugima zbog vjerovanja da ih on može bolje izvršiti. Također, često ne uspijeva ispuniti sve poslovne obveze jer previše detaljno radi na jednom zadatku. Ima čvrsta moralna načela i spremam je osuditi druge ljudе koji ih krše. Smatra da je vrlo savjestan u različitim područjima života i da zbog toga zasluguje divljenje. Nije spremam dijeliti plodove svog rada s drugima ako procijeni da oni to ne zaslužuju.

Histrionski poremećaj ličnosti

Petra oduvijek voli biti u centru pažnje te pokušava na razne načine privući pozornost na sebe. Vodi računa o svom izgledu i naglašava ga kako bi dobila komplimente. Često posjećuje teretanu i kozmetički salon te izdvaja velike količine novca za kozmetičke proizvode i markiranu odjeću. U komunikaciji s drugima je izrazito zavodljiva i često aludira na seksualne teme. Sklona je dramatičnom govoru i gestikulacijama – uzima teatralne pauze, naglašava pojedine riječi, preuveličava sadržaj priče da izazove zanimanje. S obzirom na to da uživa u publicitetu, napravila je *You tube* kanal na kojem ima velik broj pratitelja. Preko interneta s

shortly after meeting a person and tends to leave her partners when they unintentionally hurt her in some way and when she gets disappointed in them. She is very emotional and able to express her feelings clearly, but sometimes it is difficult for her to control her emotions. When she is happy, she transmits positive energy to people, she easily cries while watching movies, and when she gets angry, she does not refrain from insults. She is unpredictable and spontaneous. In her professional life as a journalist, she changed several news agencies in a short period of time. Reasons she gave to explain frequent job quitting include unfair treatment and insufficient recognition of her work.

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Obsessive-compulsive personality disorder

Luka believes that order and organization are important and tries to plan every minute of his day. He reacts violently to unexpected events that disrupt his planned schedule. He spends hours organizing closets and folders on the computer and cleaning the apartment to perfection. While performing these activities, he becomes completely enthralled and tends to neglect other important tasks. He is a librarian by profession and enjoys archiving materials. He is reluctant to leave his tasks to others because he believes he can do them better. Also, he often fails to fulfil all work obligations because he works on one task in too much detail. He has strong moral principles and is willing to condemn other people who violate them. He believes that he is very conscientious in various areas of life and that he deserves admiration for that. He is not willing to share the fruits of his labour with others if he judges that they do not deserve it.

Histrionic personality disorder

Petra has always liked to be the centre of attention and tries to attract attention to herself in various ways. She takes care of her appearance and draws attention to it to get compliments.

pratiteljima dijeli sadržaje iz svog života i veseli ju njihove pozitivne reakcije. Sklona je brzim promjenama raspoloženja i pokazuje nezadovoljstvo kada pozornost nije usmjerena na nju. Prema ljudima koji su popularniji od nje osjeća zavist, i često uspoređuje svoj broj pratitelja s konkurencijom.

Ovisni poremećaj ličnosti

Josip je vrlo miroljubiv i suradljiv te izbjegava konflikte. Nesiguran je u sebe i teško prihvata komplimente i pohvale. Zbog velikog straha od samoće nastoji se pod svaku cijenu okružiti ljudima. Ne voli se suprotstavljati drugima, čak i ako zna da je on u pravu, jer se boji da će biti odbačen. Radi kao bankovni službenik već nekoliko godina, i iako ima znanja i iskustva za rad na višoj poziciji, nikada se nije javio na natječaj za napredovanje. Ljudi ga vole jer je uvijek spreman pomoći, ali ponekad iskorištavaju njegovu susretljivost. Josip na poslu i u privatnom životu izbjegava donošenje odluka i rado ih prepušta drugima. U bliskim odnosima je pasivan i uživa kada se drugi brinu o njemu.

Shizotipni poremećaj ličnosti

Marija je izvanredna studentica šumarstva koja je produžila studij za nekoliko godina. Drugi ju smatraju ekscentričnom zbog njenog izgleda – odijeva se raznoliko i neusklađeno, i po nekoliko tjedana ne češlja kosu. Na predavanjima uglavnom šuti, no kada se javi da nešto kaže, njezin komentar obično bude neočekivan i slabo povezan s gradivom zbog čega ju kolege smatraju neobičnom. S obzirom na nedostatak komunikacije s drugima i njenu samostalnost, drugi ju opisuju kao osobu koja „živi u svom svijetu“. Već nekoliko godina živi s cimericom koju poznaje vrlo površno. Za sebe kaže da ne preferira društvo jer ne može svima vjerovati, pa tako i zaključava svoju sobu kada izlazi iz stana kako cimerica

She often goes to the gym and beauty salons and spends large amounts of money on cosmetics and branded clothing. In communication with others, she is extremely seductive and often makes allusions to sexual topics. She is prone to dramatic way of speech and gestures - she takes theatrical pauses, emphasizes certain words, exaggerates the content of the story to provoke interest. Since she enjoys publicity, she has created a YouTube channel and has a large number of followers. She shares content from her life with her followers on the Internet and she is happy with their positive reactions. She tends to have rapid mood swings and shows dissatisfaction when attention is not focused on her. She feels envy towards people who are more popular than her and often compares the number of her followers with that of competition's.

Dependent personality disorder

Josip je very peaceful and cooperative and avoids all conflict. He is insecure and finds it difficult to accept compliments and praise. He fears loneliness and thus tries to surround himself with people at all costs. He does not like to oppose other people, even if he knows that he is right, because he is afraid of being rejected. He has been working as a bank clerk for several years, and although he has the knowledge and experience to work in a senior position, he has never applied for a promotion. People love him because he is always ready to help, but sometimes they take advantage of his kindness. Josip avoids making decisions at work and in his private life and gladly leaves them to others. He is passive in close relationships and enjoys when others take care of him.

Schizotypal personality disorder

Marija is a part-time forestry student who has extended her studies for several years. Others consider her eccentric because of her appearance - she dresses variously and inconsistently and does not comb her hair for several weeks.

ne bi ulazila u nju. Šumarstvo je upisala jer se voli brinuti o biljkama, i misli da ima „čarobni dodir“ koji biljkama pomaže da brže rastu i zdravije se razvijaju.

She is mostly silent during lectures, but when she comes forward to say something, her comments are usually unexpected and unrelated to the topic, which is why her colleagues think that she is offbeat. Given her lack of communication skills and her independence, others describe her as a person who “lives in her own world.” She has been living with a roommate she knows very superficially for several years. She says that she does not prefer company because she cannot trust everyone, so she locks her room when leaving the apartment because she does not trust her roommate. She is studying forestry because she likes to take care of plants and she thinks she has a “magic touch” that helps plants grow faster and develop healthier.

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Kako smo pretraživali literaturu u predinternetsko doba

/ How We Searched Literature in the Pre-Internet Era

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U vrijeme kada internet nije bio u svakom kućanstvu, kada nije bilo pametnih telefona, mobilnih aplikacija i kada svi nisu bili povezani preko društvenih mreža, pretraživanje literature i prikupljanje relevantnih članaka objavljenih u međunarodnim časopisima bilo je otežano i na to se pretraživanje trošilo znatno vremena unutar svakog znanstvenog istraživanja. Sekundarna publikacija *Current Contents*, koja je tada izlazila u obliku tiskanog časopisa svaki tjedan donosila je sadržaje brojnih časopisa s adresama istraživača, te na taj način omogućavala osobno kontaktiranje autora koji su u pravilu odgovarali na pismenu zamolbu i kolegijalno, besplatno dostavljali separate svojih radova. U tu svrhu mnogi su izrađivali svoje osobne dopisnice, a u ovom članku se na to prisjećamo i prikazujemo ga kako bi se osvijestio današnji napredak u segmentu pretraživanja literature, bitnom za svako istraživanje.

*/ In times when the Internet was not part of every household, when there were no smartphones and mobile applications and when not everyone was connected via social networks, searching literature and obtaining relevant articles published in international journals was a challenging and time-consuming part of any scientific research. The secondary publication *Current Contents*, which was then published weekly in a paper format, offered an overview of contents of various journals and listed addresses of authors, who usually responded to readers' reprint requests and, in a collegial manner, shared print copies of their articles free of charge. To this end, many had their own postal cards made. In this article, we recall and present these communication practices so as to bring to awareness the immense progress made in the literature search, which is important part of any research.*

ADRESA ZA DOPISIVANJE /

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Pretraživanje / *Searching*
Časopisi / *Journals*
Dopisnica / *Postal card*

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Dopisnica, karta za slanje kraćih poruka poštovom bez omotnice. U većini zemalja prodaje se državno izdanje s utisnutom markom. Tiska se na kartonu radi lakše manipulacije. Tarifa je niža nego za kuvertirano pismo. Rabi se i u službenom prometu za poruke koje nisu poslovna tajna. Izumitelj dopisnice je Emmanuel Hermann iz Beča. Uvedena je u poštanski promet u Austro-Ugarskoj 1869., a priznata u međunarodnom prometu od 1878. (1).

ZNANSTVENA JEDINICA

U Kliničkoj psihijatrijskoj bolnici Vrapče (danasnoj Klinici za psihijatriju Vrapče) zaposlio sam se u rujnu 1989. godine kao odjelni liječnik/istraživač-suradnik (današnji znanstveni novak) pri Zavodu za psihijatrijska istraživanja, te sam upisan u Registar istraživača Republike Hrvatske pod matičnim brojem 174626. Moje radno mjesto bilo je vezano uz projekt «Psihobiološki aspekti endogenih psihoza» koji je vodila sada pok. prof. dr. sc. Vera Folnegović-Šmalc. U Zavod za psihijatrijska istraživanja, funkcionalnu znanstvenu jedinicu, bili su uključeni znanstveni radnici iz cijele Bolnice. Tu su se osmišljavalni i provodili znanstveni projekti i znanstvena istraživanja, sakupljala i arhivirala dokumentacija o znanstvenim projektima i studijama ispitivanja lijekova te podatci o stručnoj i znanstvenoj publicistici. U to doba predstojnica Zavoda bila je sada pok. prof. dr. sc. Vera Dürrigl, specijalist neuropsihijatar (2). Sjećam se da smo imali sastanke svaki mjesec i da su se redovito podnosili izvještaji kako napreduju pojedini projekti koji su se trenutno provodili, planiralo se koje će se nove projekte prijaviti, tko će na njima sudjelovati i na koje će se kongrese putovati, tj. gdje će se prezentirati rezultati. Meni je to sve bilo zanimljivo i pomagalo mi je u razumijevanju i učenju psihij-

INTRODUCTION

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Postal card, a card for sending short messages by mail without an envelope. In most countries, postal cards are issued by government and have an imprinted stamp. They are printed on cardboard for easier manipulation. The postage is lower than for an envelope letter. The postal card is also used in official correspondence for messages that are not classified as business confidential information. The inventor of the postal card was Emmanuel Hermann from Vienna. The postal card was first introduced into the postal system in Austro-Hungary in 1869 and has been accepted in the international postal traffic since 1878 (1).

SCIENTIFIC UNIT

I landed a job at the University Psychiatric Hospital Vrapče in September 1989 as a ward doctor / research associate (today's junior researcher) at the Institute for Psychiatric Research, and I was registered in the Register of Researchers of the Republic of Croatia under the registration number 174626. My job was related to the project "Psychobiological aspects of endogenous psychosis" led by late Prof. Vera Folnegović-Šmalc, PhD. All researchers from the Hospital were involved in the work of the Institute for Psychiatric Research, a functional scientific unit where scientific projects and research studies were designed and carried out, and documentation on scientific projects and drug trials and data on professional and scientific publications collected and archived. At that time, the head of the Department was late prof. Vera Dürrigl, PhD, specialist in neuro-psychiatry (2). I remember that we had meetings every month and that regular reports were given on the progress made in individual projects that were on-going at the time. Plans were carefully developed as to which new projects to apply for funding, who would work on these projects and which congresses would be attended, i.e. where the results would be presented. I found it all very interesting and helpful for understanding and

jatrije. Iako sam u Bolnici *de facto* obavljao sve poslove kao i specijalizanti iz psihijatrije, specijalistički staž mi nije tekao, jer je moj nominalni posao bio magistrirati s temom iz projekta na kojem sam bio pripravnik. Znači, tema shizofrenija mi je bila zadana samim projektom, a unutar toga sam se odlučio za komparaciju katatonog i ostalih podtipova dugotrajnim (retrospektivnim i prospективnim) praćenjem reprezentativnog uzorka. Bilo mi je interesantno, jer je posao podrazumijevao i terenski rad po cijeloj Hrvatskoj (pa i šire), tamo gdje su pacijenti boravili odnosno kamo su otišli. No, kako je osnova svakog znanstvenog rada prvo proučiti literaturu, vidjeti što je o temi dotada već napisano, uputio sam se u Biblioteku bolnice Vrapče, proučio postojeće knjige iz ovog područja i ubrzo shvatio da su udžbenici i knjige u trenutku objavljivanja najmanje 5-10 godina u zaostatku za trenutnim stručno-znanstvenim spoznajama, a da se recentni podatci najnovijih studija pretežno nalaze u međunarodnim stručno-znanstvenim časopisima, pa sam počeo pratiti znanstvenu periodiku. Uskoro sam najviše vremena provodio proučavajući citiranu literaturu, te sam na taj način dolažio do spoznaja o za mene važnim časopisima, onima na koje naše biblioteke nisu bile pretplaćene. Pronalazio sam puno interesantnih citata i naslova značajnih istraživanja, no sažeci i cjeloviti članci su mi i nadalje većinom bili nedostupni. Naime, postojala je mogućnost posudbe nekih časopisa odnosno kopiranja članaka putem međubibliotekarske suradnje, no to je bilo prilično komplikirano i sporo. Tijekom edukacije o metodologiji znanstvenog rada informirao sam se o sekundarnim časopisima, tj. bazama podataka, te ubrzo shvatio važnost objavljivanja u indeksiranim časopisima (3). Svaki tjedan listao sam mali bijeli časopis naziva *Current Contents* (4), okretao tanke stranice biblijskog papira, bilježio interesantne naslove i adrese autora te im slao zamolbu da mi pošalju otisak svog

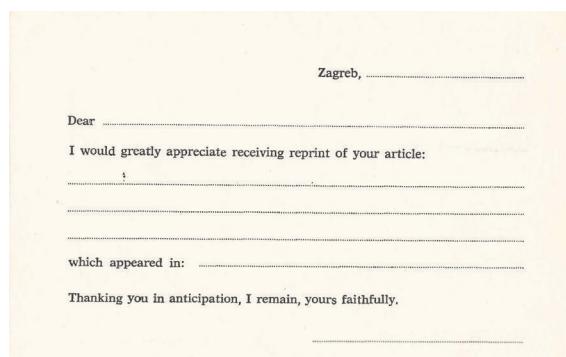
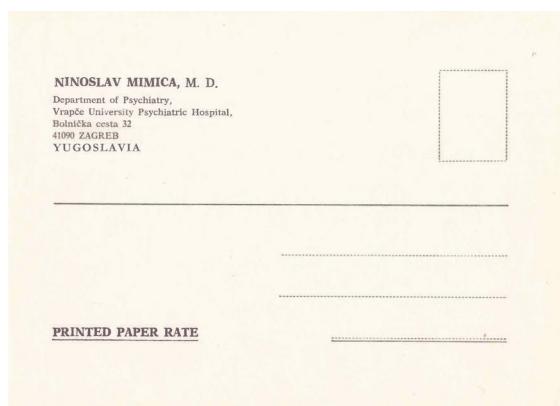
learning psychiatry. Although I practically did all the work at the Hospital like any other psychiatry resident, my specialist residency was not running because my nominal job was to earn a master's degree and my research topic was determined by the project I worked on as a junior researcher. So the topic of schizophrenia was a given because of the project itself, and I decided to compare catatonic and other subtypes of the disease after a long-term (retrospective and prospective) follow-up of a representative sample. I thought this was quite interesting, because the job description also included field work throughout Croatia (and beyond), wherever patients stayed or wherever they went. However, as the basis of any scientific paper is first to study the literature and see what has already been written about the topic, I went to the Library of Vrapče Hospital, read the existing books in this field and soon realized that textbooks and books at the time of publication were at least 5-10 years behind the current clinical and scientific knowledge. The recent data from the latest studies could mostly be found in international professional and scientific journals, so I started following scientific periodicals. I soon spent most of my time studying the cited literature, and in that way I learnt of journals that were important to me, those to which our libraries were not subscribed. I found a lot of interesting citations and titles of significant research papers, but abstracts and full-text articles were still mostly out of reach. There was a possibility of borrowing some journals or copying articles through interlibrary cooperation, but it was quite a complicated and slow process. During the training in scientific methodology, I was acquainted with secondary journals, i.e. databases, and soon realized the importance of publishing papers in indexed journals (3). Each week, I browsed through a small white journal called *Current Contents* (4), flipped through the thin pages made of Bible paper, jotted down interesting titles and addresses of authors, and then sent them reprint requests. At first, I wrote letters on a typewriter, but then I decided to create my own

članka. U početku sam pisao pisma na pisaćoj mašini, ali sam onda, zbog uštede vremena, ali i radi plaćanja niže poštarine, jer većina autora su bili iz Sjedinjenih Američkih Država i drugih prekoceanskih zemalja, odlučio kreirati svoju dopisnicu (sl. 1a). Prema uzoru na postojeće poštanske dopisnice o svom trošku sam dao izraditi i tiskati osobnu dopisnicu na tvrđem papiru dimenzije 14,5 x 10,5 cm. Na njoj je u gornjem desnom kutu bio označen kvadrat za lijepljenje marke, a u gornjem lijevom kutu bila je tiskana moja adresa na engleskom jeziku: NINOSLAV MIMICA, M. D., Department of Psychiatry, Vrapče University Psychiatric Hospital, Bolnička cesta 32, 41090 Zagreb, YUGOSLAVIA. U donjem lijevom dijelu bilo je napisano PRINTED PAPER RATE što je označavalo da se radi o TISKANICI, a što je podrazumijevalo još nižu poštarinu od one za dopisnicu.

Na poledini ove dopisnice (sl. 1b) u gornjem desnom uglu napisano je *Zagreb*, te je ostavljeno mjesto za upis datuma, potom u drugom redu riječ *Dear [Dragi]* a u nastavku je ostavljeno mjesto za upis imena i prezimena. Zatim je slijedio tekst *I would greatly appreciate receiving reprint of your article: [Bilo bi mi jako dragو primiti otisak vašeg članka:]* i onda tri crte predviđene za upis naslova članka. Nakon toga je slijedio tekst *which appeared in: [koji je objavljen u:]* pa prostor za upis naziva časopisa. Tekst završava s rečenicom zahvale – *Thanking you in anticipa-*

postal card (Figure 1a) to save time and pay lower postage, because most of the authors were from the United States and other overseas countries. Following the example of the existing postal cards, I had a personal postal card custom-made and printed on harder paper measuring 14.5 x 10.5 cm, at my own expense. A square for affixing the stamp was located in the upper right-hand corner, and my address was printed in English in the upper left-hand corner: NINOSLAV MIMICA, M. D., Department of Psychiatry, Vrapče University Psychiatric Hospital, Bolnička cesta 32, 41090 Zagreb, YUGOSLAVIA. In the lower left part, PRINTED PAPER RATE was written, which indicated that it was PRINTED MATTER, which meant an even lower postage than for a postal card.

On the back of this postal card (Figure 1b), the upper right-hand corner displayed the printed word *Zagreb*, and a blank field next to it for entering a date. Then, the second line began with the word *Dear* and below, there was again blank field intended for entering a name and surname. This was followed by the text *I would greatly appreciate receiving a reprint of your article:* and then three lines were left for writing the title of the article. This was followed by the text *which appeared in:* and an empty space for entering the name of the journal. The text ended with a thank-you note - *Thanking you in anticipation, I remain, yours faithfully.* The final line was intended for signature.



SLIKA 1. Tiskanica u obliku osobne dopisnice (iz doba Jugoslavije) kojom se moli reprint određenog članka, prednja i stražnja stranica
FIGURE 1 Postal stationery in the form of a personal postal card (from the time of Yugoslavia) with a reprint request, front and back.

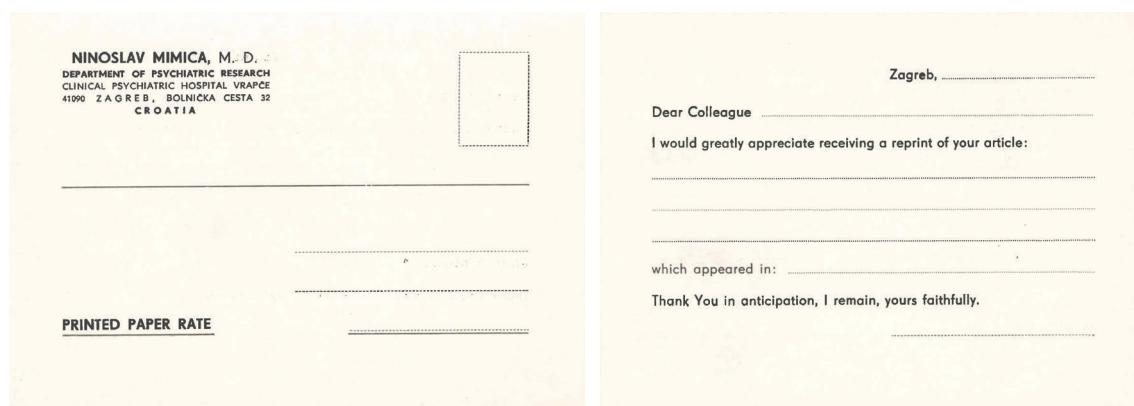
tion, I remain, yours faithfully [Zahvaljujem unaprijed, ostajem vjerno vas]. I onda crta na koju ide potpis.

Nedugo potom, pri kraju 1991. godine, došlo je do raspada Jugoslavije, a kako moj magisterij nije bio još gotov, sa zadovoljstvom sam odmah tiskao novu dopisnicu na kojoj je u adresi bilo upisano CROATIA. Novu dopisnicu, s malo modificiranim tekstom nastavio sam slati u sve dijelove svijeta. Vjerujem da su primitkom te dopisnice mnogi tada po prvi puta čuli za Hrvatsku, a pri ispisivanju moje adrese zbog slanja svog separata osvijestili postojanje nove suverene države Hrvatske. Kao što je vidljivo na dopisnici je naveden poštanski broj 41090, jer je još u to vrijeme bio važeći, a dosta kasnije je promijenjen u 10090 (sl. 2a i 2b).

U početku sam članke pronalazio samo u časopisu Current Contents (CC), Clinical Medicine (CM), koji je izlazio tjedno, u njemu iščitavao sadržaje časopisa, tj. naslove članaka odabranih psihijatrijskih časopisa, bilježio adrese autora i njima slao dopisnicu s molbom da mi pošalju otisak svog nedavno objavljenog članka. Nešto kasnije sam shvatio da se neki meni interesantni članci objavljaju i u *Current Contents*, *Life Science* (LS) odnosno *Social and Behavioral Sciences* (SBS) pa sam od tada na dalje čitao ta tri CC časopisa. Pošta je tih godina dobro funkcionala, vjerojatno bolje nego danas, poštari

Shortly afterwards, at the end of 1991, Yugoslavia dissolved, and as my master's degree was not yet completed, I was pleased to immediately print a new postal card with the address CROATIA written on it. I continued sending the new postal cards, with a slightly modified text, to all parts of the world. I believe that many people first heard about Croatia because of my postal cards. When they wrote my address in order to send me their reprint, they became aware of the existence of a new sovereign state of Croatia. The postal code on the card was 41090, as it was still valid at the time, and much later it was changed to 10090 (Figures 2a and 2b).

Initially, I was finding articles only in the journal Current Contents (CC), Clinical Medicine (CM), which was published weekly. I read the contents of the journal, i.e., the titles of articles from selected psychiatric journals, recorded the authors' addresses and sent them my postal cards asking for a reprint of their recently published article. Somewhat later, I realized that some articles I was interested in were also published in *Current Contents*, *Life Science* (LS) and *Social and Behavioral Sciences* (SBS). So from then on, I began reading these three CC journals. The post office worked well in those years, probably better than today. Postmen regularly delivered items on Saturdays, so it only took 1-4 weeks, depending on the destination, to receive the



SLIKA 2. Tiskanica u obliku osobne dopisnice (iz 1991. godine) kojom se moli otisak određenog članka, prednja i stražnja stranica
FIGURE 2 Postal stationery in the form of a personal postal card (from 1991) with a reprint request, front and back.

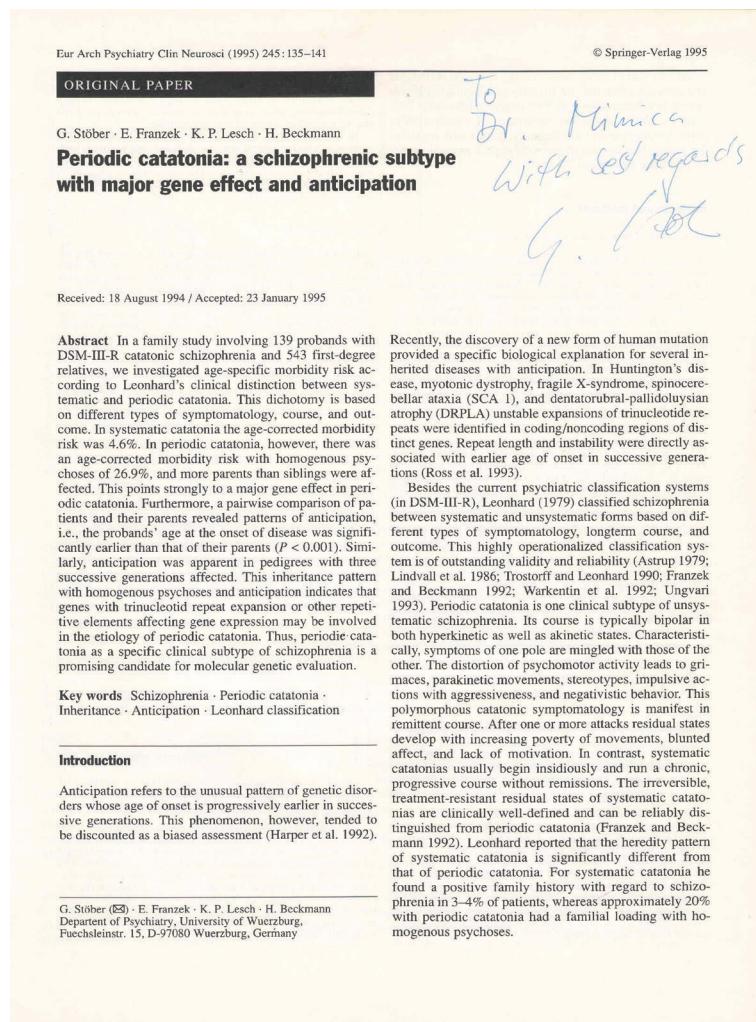
N. Mimica: Kako smo pretraživali literaturu u predinternetsko doba. Soc. psihijat. Vol. 49 (2021) Br. 1, str. 68-76.

su redovito dostavljalji pošiljke i subotom, pa je tako trebalo samo između 1-4 tjedna, ovisno o destinaciji, da se traženi članak dobije na kućnu adresu, najčešće s kratkom posvetom autora (sl. 3).

Ponekad sam dobio otisak (fotokopiju) a nekad separat rada, tj. zasebno otisnut članak uvezan s naslovnicom časopisa. U to je vrijeme bilo uobičajeno da autori članka besplatno dobivaju 10-25 separata (sl. 4), a svaki od časopisa je još putem prethodne narudžbe nudio kupnju većeg broja separata. Naime, mnogi autori su imali običaj samoinicijativno slati svoje separate kolegama nadajući se da će možda biti citirani u njihovim radovima. Stoga je u to doba bilo uobičajeno da nakon prihvatanja članka,

requested article to your home address, usually with a short dedication by the author (Figure 3).

Sometimes I received a photocopy and sometimes a reprint of the article, i.e., a separately printed article bound within the journal covers. At that time, it was common for the authors to receive 10-25 reprints of their published article free of charge (Figure 4), and each of the journals offered a larger number of reprints for purchase based on the previous order. Many authors used to send the reprints to their colleagues on their own initiative, hoping that their work might be cited in others' papers. Therefore, at that time it was customary for authors to order an additional 50, 100 or more reprints after their article had been accepted



SLIKA 3. Poštom prispjeli separat s posvetom
FIGURE 3 A reprint with inscription received by mail.

poglavito ako se radilo o međunarodnom časopisu, autor dodatno naruči još 50, 100 ili više separata.

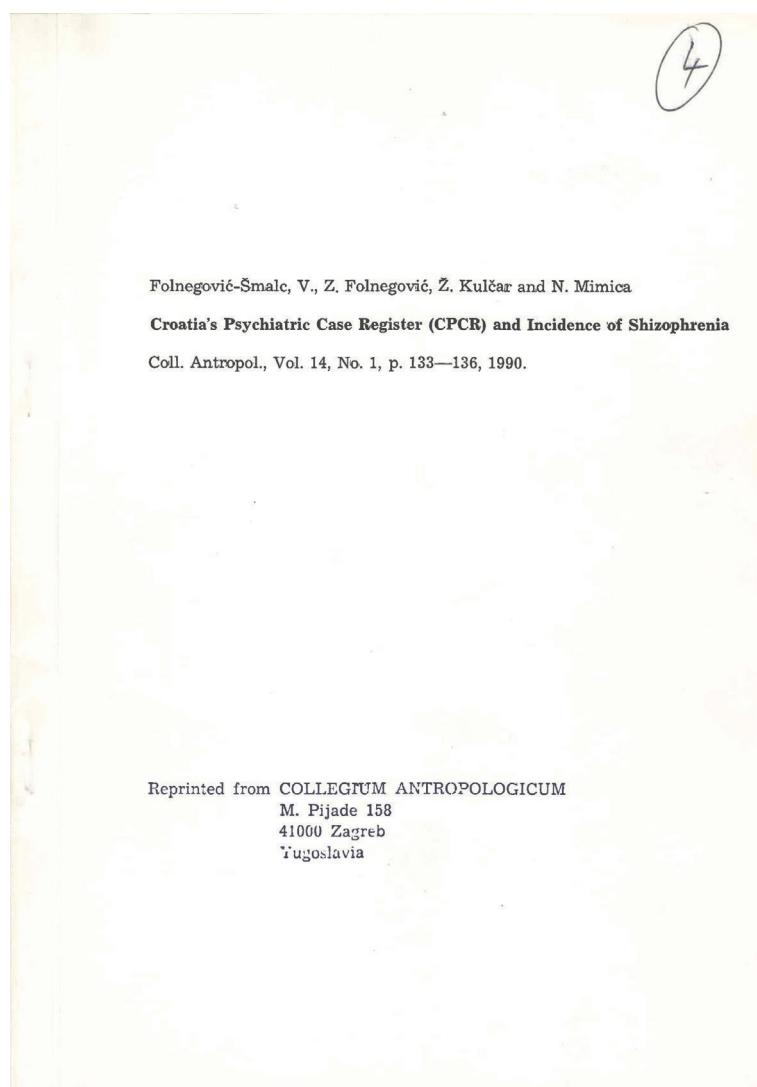
Magistrirao sam 1994. godine (5), nakon 5 godina terenskog rada, i skupljanja literature, no kada sam branio rad, bio sam potpuno spokojan, jer sam znao da sve relevantno što je dotad objavljeno na tu temu imam u svojoj arhivi i detaljno sam proučio.

Potom sam s vremenom i ja počeo objavljivati članke vezane za rezultate magisterija i doktorata, pa su i meni počesto pristizali zahtjevi za slanje reprinta mojih članaka (sl. 5), na koje sam sa zadovoljstvom odgovarao.

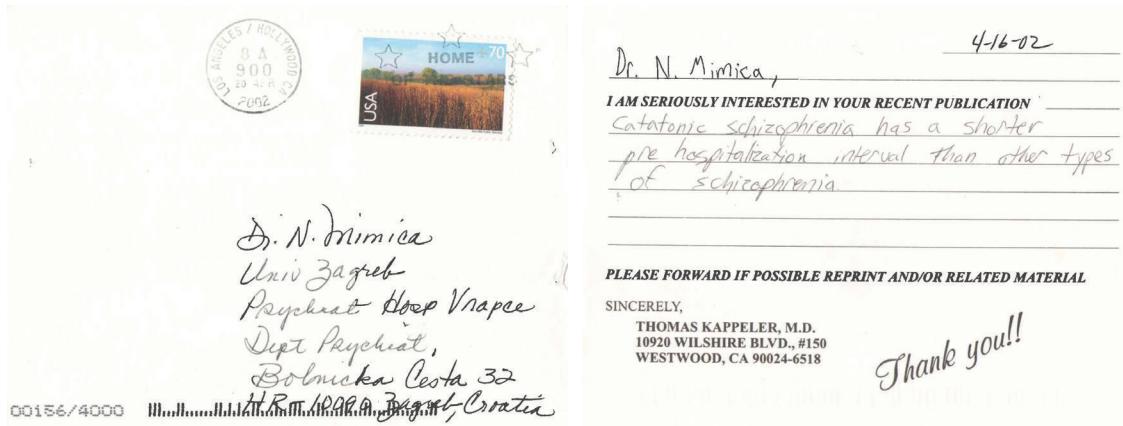
for publication, especially if it was to be published in an international journal.

I received my master's degree in 1994 (5), after 5 years of field work and collecting literature. When I defended my thesis, I was completely calm, because I knew that I had everything relevant that had been published on that topic up to then in my archive and that I had studied it all in detail.

Then, over time, I began to publish articles related to the results of my master's and doctoral dissertations. Suddenly, I started receiving requests to send reprints of my articles (Figure 5), to which I gladly responded every time.



SLIKA 4. Separat rada objavljenog u časopisu *Collegium Antropologicum* 1990. godine
FIGURE 4 A reprint of an article published in the *Collegium Antropologicum* in 1990.



SLIKA 5. Tiskanica pristigla 2002. godine, iz Amerike, Los Angeles, Hollywood u obliku osobne dopisnice a kojom se moli otisak članka, prednja i stražnja stranica

FIGURE 5 A postal stationery received in 2002, from the USA, Los Angeles, Hollywood in the form of a personal postal card with a reprint request, front and back.

ZAKLJUČNO

Današnje baze podataka u većini slučajeva besplatno nude samo sažetak rada, a cijeloviti rad se obično prodaje, tj. može kupiti najčešće po cijeni od 25 – 39 USA \$/Eura. U zadnje vrijeme postoji sve više časopisa s tzv. otvorenim pristupom (*Open access*) koji daju cijelovite radove besplatno, no tu se najčešće radi o tome da su prethodno sami autori unaprijed uplatili značajnije svote tom časopisu (od 100 do 3000 i više Eura) kako bi to omogućili. U najnovije doba postoje i društvene mreže (npr. *ResearchGate*) koje povezuju znanstvenike međusobno i omogućuju im neposrednu komunikaciju te da između sebe razmjenjuju znanstvene članke i na taj način dolaze do besplatnih informacija za vlastitu upotrebu. Današnja komunikacija na toj društvenoj mreži uvelike podsjeća na nekadašnje slanje dopisnica i traženje separata, samo što se danas sve odvija znatno brže, elektroničkim putem, pa je tako nestala draž višetjednog provjeravanja poštanskog sandučića, iščekivanja poštara i otvaranja prispjelih pošiljaka.

U preinternetsko doba, kada su nam samo malobrojni stručno-znanstveni podatci bili nadohvat ruke, časopis *Current Contents* pružao je prozor u svijet znanosti, a traženje separata putem dopisnica predstavljao neposredan kon-

CONCLUSION

Today's databases generally provide free-of-charge access only to abstracts, while full-text articles have to be bought, i.e., they can usually be purchased at a price of 25 - 39 USA \$ / Euro. Recently, there have been more and more journals with so-called open access, offering access to all articles free-of-charge. However, most authors themselves have previously paid significant sums to open-access journals (from 100 to 3000 Euro or more) to make it possible. Of late, there are also social networks (e.g. *ResearchGate*), which connect scientists, allow them to communicate directly to one another and to exchange scientific articles, thus getting free information for their own use. Today's communication on these social networks is very reminiscent of postal cards and reprint requests, only today everything is much faster, electronically sent. The charm of checking the mailbox for weeks, waiting expectantly for the postman and opening mail has faded.

In the pre-Internet era, when only a handful of scientific data was at our fingertips, *Current Contents* provided a window into the world of science, and requesting reprints through postal cards was a direct contact with the author and

takt s autorom i relativno brz, jeftin i učinkovit način sakupljanja recentne literature. Današnje internetske baze podataka omogućavaju trenutni pristup podatcima što znatno olakšava, ubrzava prikupljanje literature i protok informacija, te je stoga važno osvijestiti koliko je veliki napredak ostvaren u tom segmentu.

a relatively quick, inexpensive, and efficient way to collect recent literature. Today's online databases provide an instant access to data, facilitating greatly the collection of literature and flow of information. It is, therefore, important to be aware of the magnitude of progress that has been made in this segment.

ZAHVALA

Zahvaljujem svojoj majci, Nikici Mimica, prof., bivšoj tajnici Klinike zaženske bolesti i porodiljstvo, te voditeljici istoimene biblioteke pri Kliničkoj bolnici „Dr. Mladen Stojanović“ u Zagrebu (danas Klinički bolnički centar Sestre milosrdnice), da me je u samom početku mog znanstvenog rada uputila na radeve sada pok. Eugene Garfielda, osnivača biometrike i scientometrike.

ACKNOWLEDGEMENT

I would like to thank my mother, Nikica Mimica, professor and former secretary of the Clinic for Women Diseases and Maternity, and head of the eponymous library of Clinical Hospital „Dr Mladen Stojanović in Zagreb (today University Hospital Center Sestre milosrdnice), for referring me to the works of late Eugene Garfield, the founder of biometrics and scientometrics.

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Artificijelni poremećaji - prijedlog novog naziva u Hrvatskoj umjesto dosadašnjeg naziva „Umišljeni poremećaji“

/ Artificial Disorders (Artificijelni poremećaji) – a New Term Proposed to Replace the Pre-existing Croatian Term: “Umišljeni poremećaji”

Glavnim urednicima časopisa „Socijalna psihijatrija“:

Prof. dr. sc. Dražen Begić

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To the Chief Editors of the Social Psychiatry Journal:

Prof. Dražen Begić, MD, PhD

Prof. Miro Jakovljević, MD, PhD

Poštovani prof. Begić i prof. Jakovljević

Ovo Pismo uredniku je napisano kao prijedlog raspravi o dosadašnjem nazivu „**umišljenih poremećaja**“ u Hrvatskoj. Osobno sam prije nekoliko godina također nekada koristio termin „**umišljene trudnoće**“ u jednom radu (1). Međutim, u tijeku je priprema za objavljivanje udžbenika iz dječje psihijatrije, kojemu sam glavni urednik, tako da sam između ostalog naišao na različite termine i nedoumice kako ih Hrvatski navesti, a i samostalni sam autor poglavila o artificijelnim poremećajima (vidi kasnije o tom terminu), gdje između ostalog, navodim niz kliničkih vinjeta o ovom poremećaju kod adolescenata, koji i **nije tako rijedak** kako se preliminarno misli, i nije neupitno u praksi i literaturi, da započinju već u **djetinjstvu i adolescenciji**.

Kod jezičnih dilema mi je velika pomoć bio lektor prof. Tomislav Salopek kao i drugi, meni dragi kolege. Nije ono da se daje prijedlog nečemu, da bih tu ja imao neke svoje privatne razloge, nego se radi o pitanju terminologije koja se koristi, i postoji li u Hrvatskoj konsenzus zašto se neki termini koriste i zašto su uvriježeni (barem da bude konsenzus o nazivima

Esteemed Professors Begić and Jakovljević

This letter to the editor was written as a proposal for a discussion about the current term **“umišljeni poremećaji”** in Croatia. Personally, a few years ago I also used the term **“umišljene trudnoće”** in one paper (1). However, as the editor-in-chief of the soon to be published textbook of Child and Adolescent Psychiatry, I have come to have various doubts regarding the appropriate use of terms in the Croatian language. As the independent author of the chapter on **“artificijelnim poremećajima”** (which will be discussed later on in this letter), among other things, I cite a number of clinical vignettes about this disorder in adolescents and provide information from literature that demonstrates that this disorder is **not as rare** as previously thought to be, and that it **begins as early as childhood and adolescence**.

My colleagues, in addition to the Croatian language editor **Prof. Tomislav Salopek**, who has been a language editor in the field of medicine and psychiatry for many years, were of great help in resolving language dilemmas. This is not about giving suggestions to support private interests, but it is rather a question

dijagnoza u klasifikaciji). Na primjer, mogu se koristiti neki termini koji su jednom stavljeni u klasifikaciju, a uopće se ne propituje jesu **li su oni prikladni** ili jesu li oni **moralistički** ako im se daje **negativno značenje**. U psihijatrijskom nazivlju u Hrvatskoj ima više primjera toga. Npr. navodi se disruptivni poremećaj disregulacije raspoloženja kod djece, koji se nalazi u Hrvatskom prijevodu DSM-5 (2), mada riječ disruptivan ne postoji u Hrvatskom jeziku i Hrvatskoj psihijatrijskoj tradiciji, i pravilnije bi onda bilo reći ometajući poremećaj disregulacije raspoloženja. Međutim, tema ovog članka se neće širiti na druge dvojbene termine, i u ostaku teksta će se govoriti o specifičnoj temi iz ovog naslova.

Naziv „**umišljeni poremećaj**“ se nalazi u ICD-10 hrvatskoj verziji (3), a možda je vjerojatno bio i prije korišten u praksi. Nisam se trenutno udubljivao, da istražim tu povijesnu problematiku u Hrvatskoj, tko je to tako dao prvi naziv, mada i to pitanje može biti visoko intrigantno. Svakako je odlučujuće što se takav izraz nalazi u trenutno važećim klasifikacijama na Hrvatskom jeziku (DSM-5; ICD-10). Riječ **umišljen** prema **Hrvatskom jezičnom portalu** (2020) predstavlja da je netko **uobražen i ohol**, dok glagol umisliti znači da si čovjek nešto uobražava, nešto si zamišlja (4). U hrvatskom jeziku dakle ovo značenje termina, prema mojoj mišljenju, ima **moralističko značenje**, a što je **pogubno** da to onda ima veze s jednom **psihijatrijskom dijagnozom**. U hrvatskom jeziku je korijen te riječi glagol **misliti** (koje dolazi porijeklom od staroslavenskog jezika), međutim taj glagol, prema mojoj saznanjima, nema nikakve veze s engleskim izrazom **factitious disorder** (vidi kasnije u tekstu).

Dakako, treba respektirati mukotrpni rad kolega psihijatara koji su sudjelovali u prijevodima važećih klasifikacija, međutim i tu je vjerojatno potreban dodatni konsenzus i prihvatanje drugih mišljenja. Od pojave ICD-10 klasifi-

of proper usage of terminology and whether there is a consensus in Croatia as to why some terms are used and why they are common (or at least to have a consensus on the names of the diagnoses in the classification). For example, some terms, having once been used to describe a classification, may never be reexamined to determine **whether they are appropriate** or whether they are **moralistic** if given a **negative connotation**. There are several examples of this in psychiatric terminology in Croatia. For example: “*Disruptivni poremećaj regulacije raspoloženja*” in children, which is found in the Croatian translation of the DSM-5 (2), uses the Croatian word “*disruptivan*”, even though this word does not exist in the Croatian language and the Croatian psychiatric tradition. It would be more correct to use the word “*ometajući*” and thus call the disorder “*ometajući poremećaj disregulacije raspoloženja*”. However, the scope of this article will not be extended to other dubious terms, and the rest of the present text will discuss the specific topic indicated in the title.

The term “**umišljeni poremećaj**” can be found in the Croatian version of ICD-10 (3), and its usage can be traced in medical practice. At the moment, I have not delved into the history behind who originally started using this term in Croatia, although this question would be highly intriguing. It is certainly decisive that the aforementioned term can be found in the currently valid classifications of DSM-5 as well as ICD-10 in the Croatian language. According to the **Croatian language portal** (2020), the word “*umišljen*” denotes that someone is **conceited (“uobražen”) and arrogant (“ohol”)**, while the verb to “*umisliti*” means that a person becomes conceited or adopts a conceit (4). Therefore, in my opinion, the meaning of the term in the Croatian language is **moralistic** in nature, and **should not be used in a psychiatric diagnosis**. In the Croatian language, the root of the word is the verb **to think (“misliti”)** (which comes from the Old Slavic lan-

kacije, prema meni dostupnim podatcima, se dalje koristi ovaj termin, npr. koriste ga pojedini udžbenici, npr. prof. Dražen Begić, koji je i jedan glavnih urednika Socijalne psihiatije, a ima i dugogodišnje iskustvo u primjeni Hrvatskog psihiatrijskog nazivlja (5), a koristi ga i hrvatski prijevod ICD-10 (3), kao i Hrvatski prijevod DSM-5 (2). Dakle, autor ovog pisma nije sklon hrvatskom terminu „**umišljeni poremećaj**“, mada je on godinama uvriježen u Hrvatskoj, s obzirom da taj naziv ne odražava bit ovog poremećaja, a i s obzirom da ovaj naziv u Hrvatskoj može imati površno i pogrešno značenje. Npr. „...on/a si je nešto umislio/la u glavi, ali zapravo izmišlja i umišlja si tjelesne i psihičke simptome...“, što u Hrvatskoj, prema mojoj mišljenju, ima **negativno i moralističko značenje**. Ili, zamislite situaciju da ja kao dječji psihijatar priopćujem jednoj adolescentici da ona ima „umišljeni poremećaj“, slično kao kada u praksi razgovaram s djevojkom koja ima anoreksiju nervozu i otvoreno tijekom psihoterapije, govorimo o njezinom „anorektičkom dijelu“. Često sam od samih adolescenata dobivao verbalizacije, da su razočarani roditeljima, jer su im često roditelji govorili da su si „**umislili**“ svoje probleme, a što jednoznačno sami pacijenti negativno ocjenjuju itd.

Ova grupa poremećaja jesu **ozbiljni psihički poremećaji** (koji mogu dovesti i do letalnih ishoda! /), i stoga treba pripaziti koja se terminologija koristi. U literaturi i praksi postignut je konsenzus da ovdje nije riječ o **moralno-de-linkventnom problemu**, već o **ozbilnjom psihičkom poremećaju**. U literaturi se ova grupa poremećaja naziva različitim imenima: artificijelni poremećaji; poremećaji s artefaktima, Münchhausenov sindrom, sindrom „bolničkog skakavca“ (engl. *hospital hopper syndrome*); putujući bolesnik (*peregrinating patient*), „ovisnici o bolnicama“, mitomanija itd. (3,6,7).

Koliko je meni poznato, nije sporno da je engleski naziv za ovu grupu poremećaja **factitious**

guage), but this verb, to my knowledge, has nothing to do with the English term “**factitious disorder**” (which will be discussed later on in this letter).

Even though the hard work of fellow psychiatrists who participated in the translation of the current Croatian classifications should be respected, additional consensus and acceptance of other opinions is probably needed as well. Since the appearance of the ICD-10 classification, according to the data available to me, the term “*umišljeni poremećaj*” has been used in Croatian literature and textbooks. For example: it is used by Prof. Dražen Begić, who is also one of the editors-in-chief of the Social Psychiatry Journal, and has many years of experience in the application of Croatian psychiatric terminology (5); it is also used in the Croatian translation of ICD-10 (3) and DSM-5 (2). However, the author of this letter is not inclined to use the Croatian term “*umišljeni poremećaj*”, even though it has been commonly used in Croatia for years, due to the fact that the name does not reflect the essence of this disorder and given that this name has a superficial and erroneous meaning in Croatian. For example: “...he/she has a conceit in his/her mind, but in fact he/she invents and imagines physical and mental symptoms...”, which in Croatia, in my opinion, has a negative and moralistic meaning. Imagine a situation where I, as a child and adolescent psychiatrist, tell an adolescent that they have a imaginary disorder (“*umišljeni poremećaj*”), much like when in practice I talk to a patient who has anorexia nervosa and openly talk about their “anorectic part” during psychotherapy. I frequently hear from adolescent patients that they are disappointed in their parents because their parents often tell them that they had imagined (“*umislili*”) their problems, which they associate with a negative connotation.

This group of disorders are **serious mental disorders** (which can lead to lethal outcomes

disorder (8). Međutim, kako prevesti ovo na Hrvatski jezik? Engleski izraz **factitious** dolazi od glagola latinske riječi **facio (facio, feci, factum, facere)**, a što označava nešto učiniti, tvoriti, stvarati, praviti, napraviti, načiniti, proizvesti itd. prema Divkoviću (9). Kako navodi Merriam-Websterov rječnik (2020) (10), engleski naziv *factitious* može imati prije navedeno značenje, međutim može imati i sasma suprotno, odnosno da je „**umjetnički učinjeno**“, ili **artificijelno**, ili „**učinjeno ljudskom rukom**“. Sažeto rečeno, engleski naziv za poremećaj je **factitious disorder**, a upućuje na nešto artificijelno i neprirodno. Pojedini autori također koriste engleski izraz *induced or fabricated illness*, što je također bliže naravi ove grupe poremećaja (11). Međutim, kako to onda hrvatski prevesti?

Pojedini vodeći njemački autori na ovom području koriste izraz **artificijelni poremećaji**, dok drugi autori govore o poremećaju s artefaktima, o insceniranom poremećaju ili o poremećaju sa zavaravanjem (*njem. Artifizielle ili Vorgefaschte Krankheit*) (7,12-14). Artificijelno bi se označavalo nešto umjetnim, umjetničkim ili izvještačenim, dok bi se za artefakt moglo reći da je umjetni proizvod ili rukotvorina (15). Zanimljivo je svakako, da inače njemački autori rijetko koriste neke strane riječi u svojoj psihijatrijskoj terminologiji, odnosno uvijek daju prednost davanju izvornih njemačkih riječi, međutim, što se tiče ove grupe poremećaja, ovdje rade iznimku.

Za spomenuti je prvi udžbenik psihijatrije Katedre za psihijatriju i psihološku medicinu Medicinskog fakulteta u Zagrebu iz godine 1959, koji je, čini se, bio zanemaren kod prijevoda MKB-10 i DSM klasifikacije na hrvatski jezik. **Betlheim** (1959) (16) navodi u svojem poglavljju o neurozama izraz **fantomski graviditet**, ubrajajući ga u konverzivne simptome, i prema mišljenju autora ovog pisma to je ispravnije označeni izraz na hrvatskom jeziku. Betlheim koristi sljedeće riječi da bi opisao taj

/!), and therefore care should be taken as to which terminology is used. There is a consensus in literature and practice that this is not a **moral-delinquent problem**, but a **serious mental disorder**. In the literature, this group of disorders is called by different names: artificial disorders, artefact disorders, Münchhausen syndrome, hospital hopper syndrome, peregrinating patient, hospital addicts, mythomania, etc. (3, 6, 7).

As far as I know, the English name for this group of disorders, “factitious disorder”, is not disputed (8). However, the question that arises is how to appropriately translate this term into Croatian. According to Divković (9), the English term *factitious* comes from the Latin verb **facio (facio, feci, factum, facere)**, which means to do something, to create, to make, to produce, etc. According to the Merriam-Webster Dictionary (2020) (10), the English term “*factitious*” can have the aforementioned meaning, but it can also have the exact opposite, i.e. that it is “artistically done”, or artificially, or “done by human hand”. Thus, the English name for *factitious disorder* can refer to something artificial and unnatural. Some authors also use the English term *induced or fabricated illness*, which is also closer to the nature of this group of disorders (11). The question that still remains is how to translate this into Croatian.

Some leading German authors in this field use the term *artificial disorders*, while other authors speak of a disorder with *artefacts*, or a disorder with deception (German – *Artifizielle or Vorgefaschte Krankheit*) (7, 12, 13, 14). Something artificial or artistic would be labelled as artificially (“*artificijelno*”), while an artefact could be said to be an artificial product or handicraft (15). Interestingly, German authors rarely use foreign words in their psychiatric terminology and always give preference to original German words. However, they make an exception in the terms for this group of disorders.,

fenomen: produciranje ili prikazivanje. Riječ **fantomski** dolazi od grčke riječi **faino** i označava prikazivanje, pokazivanje, pojavljivanje, prikazu, nešto što se iznosi na svjetlo (15,17). U medicini imamo nazine npr. fantomska bol, fantomski ud, što ne znači npr. da je to „umišljena ili lažna bol“ ili „umišljeni ili lažni ud“ itd. Fantomska bol je poznata kao priznati izraz stoljećima u medicini (bol kod amputiranih ratnih veterana, naime postoje o tome medicinski prikazi iz 18. stoljeća). Dakle, Betlheim nikako ne piše o „lažnoj trudnoći“, niti o „umišljenoj“ trudnoći itd. Ono što je bit Betlheimovog shvaćanja, jest da je fantomska trudnoća (graviditet) intrapsihička kreacija, a sličan mehanizam se slično nalazi kod neuroze (konfliktna teorija ličnosti, formiranje simptoma kao kompromisna formacija itd.), a što je i danas prihvaćeno od psihanalitičkih autora kod modela konverzije (18). Ovaj koncept neuroze je prema meni i mnogo humaniji pristup prema pacijentu, nego možda tzv. „noviji pristupi u psihijatriji“, gdje onda pacijent i terapeut „kolaborativno rade u psihoterapiji“ na „neurotskom dijelu, neurozi ili problemu“ pacijenta. U preglednom internacionalnom radu Kapfhamerra (14) iz godine 2017. daje se rijedak pokušaj diferencijalne dijagnoze artificijelnih poremećaja, u odnosu na disocijativne i somatizacijske poremećaje (neurotske poremećaje) i simulacije, međutim opseg ovog pisma ne može detaljnije ulaziti u tu problematiku, koja je visoko važna, da bi se i jezično na hrvatskom jeziku napravila razlika.

Dakle, **factitious disorders** bi označavalo u hrvatskom jeziku nešto artificijelno, umjetno, nešto učinjeno, inscenirano, nešto prikazano, nešto manifestirano. Predlažem stoga, da se ova grupa poremećaja u hrvatskom jeziku nazivaju **artificijelni poremećaji**, slično vodećim njemačkim autorima u ovom području (7,13,14), jer se jasnije odražava bit ovog poremećaja, i nema moralističko i negativno

It is worth mentioning that the first psychiatry textbook of the Department of Psychiatry and Psychological Medicine of the Medical Faculty in Zagreb from 1959 seems to have been neglected in the translations of ICD-10 and DSM classification into Croatian. Betlheim (1959) (16) mentions the term phantom pregnancy ("fantomski graviditet") in his chapter on neuroses, including it in conversion symptoms, and it is the opinion of the author of this letter that this term is a more correct term to use in the Croatian language. Betlheim uses the following words to describe this phenomenon: production or showing. The word "phantom" comes from the Greek word "**faino**" which means showing, appearing, displaying, something that is brought to light (15, 17). In medicine, we have terms such as phantom pain and phantom limb, which does not mean, for example, that it is "fake or false pain" or "fake or false limb", etc. For centuries, phantom pain has been a recognized term in medicine (depictions of it have been described in the 18th century as pain in amputated war veterans). Betlheim does not write about "fake pregnancy", nor about "conceited" pregnancy, etc. The essence of Bethlehem's understanding is that phantom pregnancy is an intrapsychic creation. A similar mechanism is found in neurosis (conflict theory of personality, formation of symptoms as a compromise formation, etc.), which is to this day accepted by psychoanalytic authors in the conversion model (18). This concept of neurosis, in my opinion, is a much more humane approach towards the patient than perhaps the so-called "newer approaches in psychiatry". In this approach, the patient and the therapist "work collaboratively in psychotherapy" on the "neurotic part, neurosis or problem" of the patient. In the 2017 international review paper by Kapfhammer (14), a rare attempt at differential diagnoses of artificial disorders in relation to dissociative and somatization disorders (neurotic disorders) and simulations was made, but this letter did not address this problematic

značenje. U Hrvatskoj se koriste npr. izrazi artificijelna inseminacija, artificijelna inteligencija (umjetna inteligencija itd.). Ovdje također može biti dilema da li koristiti riječ **artificijelni ili artificijalni**, ali čini se da je hrvatski pravilnije reći **artificijelni**. Dakako, nije niti taj naziv najsretniji u hrvatskom jeziku, ali ipak bolje oslikava bit ovih poremećaja, prema mom mišljenju i čini se kao određeni kompromis u odnosu na prethodni naziv. S obzirom na nespretnost drugih hrvatskih naziva, možda je prednost ovog termina, jer ima korijen u latinskom jeziku, a što je slično mnogim terminima u medicini i psihijatriji. Eventualni drugi nazivi bi mogli biti, prema mojoj mišljenju: inscenirani poremećaji; poremećaji s prikazivanjima; fantomski poremećaji, tvorbeni poremećaji, proizvedeni poremećaji, kreirani poremećaji, umjetnički poremećaji, poremećaji sa simbolikom itd.

Također ne radi se o **simulaciji**, odnosno o **najernim lažima ili varanju (prvi kriterij za simulaciju), i koje ima jasnu vanjsku dobit iz uloge bolesnika (drugi kriterij za simulaciju)** (14), kao što je već i prije bilo rečeno. Također, sukladno prije navedenomu, smatram da se hrvatski glagol **lagati (ili izvedenica lažiranje)** treba s velikim oprezom koristiti u kriterijima za ove poremećaje, jer se radi o **jezično dvojbenom terminu**, a već se ovi termini koriste u hrvatskom prijevodu DSM-5 (2). Nadalje, ova grupa poremećaja (*factitious disorder*) ubraja različite sindrome, a jedan od njih je i Münchhausenov sindrom, i on se jednostavno onda i tako naziva. Za dodatno uočiti je da se, koliko je meni poznato, ispravnije piše Münchhausenov sindrom, odnosno piše se s „dva h“, a ne „s jednim h“, međutim autor ovog pisma je često nalazio i ovdje različito napisanih niz članaka na tu temu u hrvatskom govornom području, međutim ova se konfuzija nalazi i u internacionalnoj literaturi.

Sljedeće, kako prevesti *factitious disorder by proxy*, ili *Münchhausen syndrome by proxy*. Ov-

issue. However, it is highly important to mention, in order to make a difference linguistically in the Croatian language.

Thus, in the Croatian language, factitious disorders would signify something artificial, something created, something staged, something shown, something manifested. Therefore, I suggest that this group of disorders in the Croatian language be called artificial disorders (“*artificijelni poremećaji*”), similar to the leading German authors in this field (7, 13, 14), because the essence of this disorder is more clearly reflected with this term and it has no moralistic or negative meaning. In Croatia, for example, the terms artificial insemination, artificial intelligence, etc., are used. There may also be a dilemma here about whether to use the word “*artificijelni*” or “*artificijalni*”, but it seems more appropriate to say “*artificijelni*” in Croatian. Although this might not be the ideal term in the Croatian language, in my opinion, it better reflects the essence of these disorders and is therefore, an acceptable compromise compared to the previous term that was used. Another advantage of this term is its Latin roots, which is similar to many terms in medicine and psychiatry. Other terms that could also possibly be used, in my opinion, include: *inscenirani poremećaji, poremećaji s prikazivanjima, fantomski poremećaji, tvorbeni poremećaji, proizvedeni poremećaji, kreirani poremećaji, umjetnički poremećaji, poremećaji sa simbolikom*, etc.

As mentioned previously, this disorder is not about **simulation**, i.e. **intentional lies or cheating** (the first criterion for simulation), and which has a clear external benefit from the role of the patient (the second criterion for simulation) (14). In addition, the author of this letter considers that the Croatian verb **to lie** (“*lagati*”) (or derivative “*lažiranje*”) should be used with great caution in the criteria for these disorders, because it is a **linguistically dubious term**, however, these terms are already used in the Croatian translation of DSM -5 (2).

dje sam se u konzultaciji s lektorom, prof. Tomislavom Salopekom priklonio mišljenju da se može prevesti kao **artificijelni poremećaj preko posrednika**, ili kao **Münchhausenov sindrom preko posrednika**, a sličnu primjenu imamo i u radu publiciranom u Socijalnoj psihijatriji Topić i Degmećić iz godine 2014. (19). Ovaj izraz mi se čini ispravnim (što se tiče *by proxy*, ali se ne slažem s drugim terminima u tom tekstu), a slično ga koriste i njemački autori kada govore o *Münchhausen-Stellvertretersyndrom* (20). Njemačka riječ *der Stellvertreter* bi se moglo prevesti kao posrednik, opunomoćenik ili zamjenik. Nadalje, moglo bi se reći i npr. Münchhausenov sindrom **putem** posrednika (što jasnije ukazuje na međusobni odnos dviju osoba), međutim hrvatski je ispravnije koristiti riječ **preko**. Zanimljivo je pak da „*by proxy*“ više označava posrednika ili zamjenika (npr. proxy server u informatici), a ne kako se isprva misli na „*bližnjega*“. I za kraj ovog dijela, zanimljivo je navesti dr. Vukovića iz godine 2002 (21), koji u svojem radu piše o Münchhausenovu sindromu po bližnjem. Ne mogu si pomoći, mene ovo podsjeća na: „... začet po Duhu Svetom...“ Ipak, da bude malo dašak duhovnosti, u ovaj možda suhoparni tekst koji je napisan. Dakle, intrigantna i ushićujuća jezična kreacija dr. Vukovića, s kolegom s kojim inače lijepo surađujem. Međutim, da se vratim na temu i naslov kolege dr. Vukovića, ipak hrvatski jezično neprecizno i neprikladno.

DSM-5 (8) više ne koristi riječ „*by proxy*“, već ove poremećaje dijeli na *Factitious Disorder Imposed on Self* i na *Factitious Disorder Imposed on Another*, koji su u Hrvatskoj verziji DSM-5 (2) prevedeni kao „umišljeni poremećaj na sebi“ i „umišljeni poremećaj nametnut drugome“. Neslažem se također s ovim prijevodom, jer mi se čini jezično nespretno i pogrešno. „Poremećaj na sebi“ mi se čini nespretno, tragikomično i nelogično, a u ovom drugom slučaju („nametnut drugome“), iz hrvatskog prijevoda, se ne

Furthermore, this group of disorders (factitious disorder) includes various syndromes, one of which is Münchhausen syndrome. It is worth noting that, as far as I know, it is more correct to write “Münchhausen syndrome” (i.e. written with “double h” and not with “single h”); however, the author of this letter often found a number of articles written differently on this topic in the Croatian-speaking area as well as in international literature.

The next question that arises is how to translate factitious disorder by proxy, or Münchhausen syndrome by proxy? In consultation with Croatian language editor Prof. Tomislav Salopek, a conclusion was reached that the aforementioned terms could be translated as: “*artificijelni poremećaj preko posrednika*” or as “*Münchhausenov sindrom preko posrednika*”. A similar example of the application of this translation can be found in the Social Psychiatry Journal in the paper published by Topić and Degmećić in 2014 (19). This term seems correct to me (as far as “*by proxy*” is concerned), but I do not agree with the other terms in that text. The term is used similarly by German authors when talking about *Münchhausen-Stellvertretersyndrom* (20). The German word “*der Stellvertreter*” could be translated as mediator, proxy or deputy. For example, although the construction for example “Münchhausen syndrome through (“*putem*”) a proxy or intermediary” can be used in Croatian (which more clearly indicates the relationship between two people), it is more correct to use the Croatian word “*preko*”. Interestingly, “*by proxy*” means more of an intermediary or deputy (for example: a proxy server in informatics), and not “neighbor”, as one thinks at first. Furthermore, it is worth mentioning that, in his work in 2002, Dr. Vuković writes about Münchhausen syndrome by neighbour (“*Münchhausenovu sindromu po bližnjem*”). This reminds me of: “conceived by the Holy Spirit” (... *začet po Duhu Svetom...*), just to add a bit of spirituality to in this otherwise perhaps dry

zna jasno da li onda „umišljeni poremećaj“ ima osoba koja „nameće“, ili ona „kojoj se nešto nameće“. Naime, nikada „umišljeni poremećaj“ ne može imati ona osoba kojoj se „nešto nameće“, međutim to treba biti i jezično jasno izrečeno. Englesku riječ *imposed* vjerojatno ne treba doslovno prevesti s nametnutim, nego ovaj pridjev više naglašava bit prethodnih riječi u rečenici (*factitious, self, another*). Vidi o tome relevantne prijevode engleske riječi *imposed*, u angloameričkoj literaturi, kojih je niz. Dakle, predlažem alternativne prijevode ovih termina kao: artificijelni poremećaj s vlastitim prikazivanjem; ili artificijelni poremećaj sa samoprikazivanjem, ili jednostavno artificijelni poremećaj. Od ove tri prethodne mogućnosti, uz konzultaciju s prof. Salopekom, dajem prednost za dva izraza: 1. Artificijelni poremećaj s vlastitim prikazivanjem; i 2. Artificijelni poremećaj.

Slično prije rečenom, u drugom slučaju, moglo bi se reći artificijelni poremećaj prikazan preko posrednika; ili artificijelni poremećaj prikazan preko drugih, ili jednostavno artificijelni poremećaj preko posrednika, ili artificijelni poremećaj preko drugih. Nespretno je hrvatski prevesti „ove druge“. U ovom slučaju ne mora „posrednik“ ili „ovaj drugi“ biti samo „osoba“, već to može biti i „kućni ljubimac“, kako to navodi DSM-5 (8), tako da se ne može reći „artificijelni poremećaj preko drugih osoba“. Nastavno na prethodno, uz konzultaciju s prof. Salopekom, dajem od navedenih četiri mogućnosti prednost samo jednom izrazu: **Artificijelni poremećaj prikazan preko drugih.**

Navest će neka pitanja, a manje će pokušati dati odgovore u ovom trenutku. Postoji li uopće u Hrvatskoj neovisna kontrola psihiatrijskog nazivlja koje koristimo? Postoji li neka grupa autora u Hrvatskoj koja se time bavi? Ili to određuje slučajnost, sreća/nesreća, „uvriježenost naziva“ koja zapravo ne znači ništa, da li je nama važnije da se držimo određenog naziva, jer je on „uvriježen“ kod nas profesi-

text. All in all, an intriguing and delightful language creation by Dr. Vuković, a colleague with whom I often collaborate. However, let us return to the topic and title of Dr. Vuković, the linguistically imprecise and inappropriate usage in the Croatian language.

DSM-5 (8) no longer uses the word “by proxy”, but divides these disorders into *Factitious Disorder Imposed on Self* and *Factitious Disorder Imposed on Another*, which, in the Croatian version of DSM-5 (2), are translated as “umišljeni poremećaj na sebi” and “umišljeni poremećaj nametnut drugome”. I also disagree with this translation, as it seems linguistically clumsy and wrong. “Umišljeni poremećaj na sebi” seems to be awkward, tragicomic and illogical, and in this second case (“umišljeni poremećaj nametnut drugome”), from the Croatian translation, it is not clear whether the “factitious disorder” has a person who “imposes”, or whether “something is imposed” to that person. Namely, a person to whom something is imposed cannot have a “factitious disorder”, and this should be clearly stated linguistically. The English word “imposed” should probably not be translated literally as “nametnutim”, because this adjective further emphasizes the essence of the previous words in the sentence (factitious, self, another). For further information, see the relevant translations of the English word “imposed” in the Anglo-American literature, of which there are many. In conclusion, I suggest an alternative translation of these terms as: “artificijelni poremećaj s vlastitim prikazivanjem”; or “artificijelni poremećaj sa samoprikazivanjem”, or simply “artificijelni poremećaj”. Of these three previous possibilities, in consultation with Prof. Salopek, I prefer two terms: (1) “Artificijelni poremećaj s vlastitim prikazivanjem”; and (2) “Artificijelni poremećaj”.

Similar to the aforementioned terms, in the second case, one could say: “artificijelni poremećaj prikazan preko posrednika”; or “artificijelni poremećaj prikazan preko drugih”, or simply

onalaca, mada može biti i pogrešan. A što je onda sa psihijatrijskom strukom, i njihovim mišljenjem?

Konstruktivne komentare u pripremi ovog pisma dali su prof. Tomislavu Salopek, doc. Ana Kaštelan kao i mr. sc. Silvana Pleština pa im na tome zahvaljujem.

Zagreb, 19. 1. 2021.

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“*artificijelni poremećaj preko posrednika*”, or “*artificijelni poremećaj preko drugih*”. It is difficult to translate these “others” (“*ove druge*”) into Croatian. In this case, the mediator or proxy (“*posrednik*”) or these others (“*ovaj drugi*”) does not just have to be a “person”, but it can also be a “pet”, as stated by DSM-5 (8). Thus, one cannot say “artificial disorder through other persons” (“*artificijelni poremećaj preko drugih osoba*”). Finally, in consultation with Prof. Salopek, I give preference to only one of the four possibilities: “*Artificijelni poremećaj prikazan preko drugih*”.

CONCLUSION

In conclusion, it is important to continue asking questions about this topic in order to further the discussion. Is there any independent control of the psychiatric terminology we use in Croatia? Is there a group of authors in Croatia that addresses this? Or it is determined by chance, luck / misfortune, “familiarity of the name”, which actually mean nothing. Is it more important for us to stick to a certain name because it is deeply engrained in us professionals, even though it could be wrong? What about the psychiatric profession, and their opinion?

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I would like thank Prof. Tomislav Salopek, Ana Kaštelan, MD, PhD, as well as Silvana Pleština, MD, for their constructive comments in the preparation of this letter.

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