

# Nesuicidalno samoozljeđivanje i razvoj identiteta kod adolescenata

## */ Nonsuicidal Self-Injury and Identity Development in Adolescents*

Nela Ercegović<sup>1</sup>, Ljubica Paradžik<sup>1</sup>, Vlatka Boričević Maršanić<sup>1,2</sup>,  
Darko Marčinko<sup>3,4</sup>

<sup>1</sup>Psihijatrijska bolnica za djecu i mladež, Zagreb, Hrvatska, <sup>2</sup>Sveučilište Josip Juraj Strossmayer u Osijeku, Medicinski fakultet, Osijek, Hrvatska, <sup>3</sup>Klinički bolnički centar Zagreb, Zagreb, Hrvatska, <sup>4</sup>Sveučilište u Zagrebu, Medicinski fakultet, Zagreb, Hrvatska

*/<sup>1</sup>Psychiatric Hospital for Children and Youth, Zagreb, Croatia, <sup>2</sup>Josip Juraj Strossmayer University of Osijek, Medical School, Osijek, Croatia, <sup>3</sup>University Hospital Centre Zagreb, Zagreb, Croatia, <sup>4</sup>University of Zagreb, School of Medicine, Zagreb, Croatia*

Nesuicidalno samoozljeđivanje (NSSO) je značajan problem mentalnog zdravlja adolescenata. Pretpostavlja se da problemi u formiranju identiteta imaju važnu ulogu u nastanku samoozljeđujućeg ponašanja kod mladih. Ciljevi istraživanja su bili ispitati klinička obilježja u adolescenata s NSSO te istražiti razlike u razvoju identiteta između opće (školske) populacije adolescenata i adolescenata s NSSO.

U istraživanju su sudjelovali adolescenti u dobi od 11 do 18 godina oba spola. Kliničku skupinu (n=31) činili su adolescenti prvi puta psihijatrijski hospitalizirani kod kojih je kliničkom procjenom utvrđena prisutnost NSSO unutar 6 mjeseci prije hospitalizacije. Školsku populaciju (n=294) činili su učenici osnovnih i srednjih škola Grada Zagreba. Svi adolescenti su popunjavali upitnik Procjena razvoja identiteta u adolescenciji (AIDA), dok su pacijenti ispunjavali i Inventar namjernog samoozljeđivanja (DSHI). U kliničkoj populaciji adolescenata utvrđena je visoka učestalost i multipli tipovi NSSO. Pacijenti s NSSO su imali značajno više rezultate difuzije identiteta u odnosu na učenike, što upućuje na veće poteškoće u razvoju identiteta kod adolescenata s NSSO. Bolje razumijevanje odnosa između oštećenja u razvoju identiteta i NSSO moglo bi unaprijediti procjenu i liječenje adolescenata s ovim značajnim psihijatrijskim problemom.

*/ Nonsuicidal self-injury (NSSI) is a significant mental health problem among adolescents. Problems in identity formation have been hypothesised to play an important role in the emergence of self-harming behaviours among adolescents. The aims of the study were to examine clinical characteristics of hospitalized adolescents with NSSI and differences in identity development between inpatients with NSSI and general (school) adolescent population.*

*The participants were adolescents aged 11 to 18 years of both genders. The clinical sample (n=31) included inpatients hospitalized for the first time at the psychiatric ward in whom NSSI was present 6 months before referral as established by clinical assessment. The school sample (n=294) consisted of elementary and high school students from the city of Zagreb. All adolescents completed the Assessment of Identity Development in Adolescence (AIDA), while inpatients with NSSI also completed the Deliberate Self-Harm Inventory (DSHI). A high frequency and multiple types of NSSI were found in the clinical sample. Inpatient adolescents with NSSI had significantly higher scores on Identity Diffusion than students, which indicates greater difficulties in identity development in hospitalized adolescents with NSSI. A better understanding of the relationship between impairment of identity development and NSSI could improve the assessment and treatment of adolescents with this significant psychiatric problem.*

**ADRESA ZA DOPISIVANJE /****CORRESPONDENCE:**

Nela Ercegović, dr. med.  
 Psihijatrijska bolnica za djecu i mladež  
 Ul. Ivana Kukuljevića 11  
 10 000 Zagreb, Hrvatska  
 E-pošta: nelaerc@gmail.com  
 nela.ercegovic@djecja-psihijatrija.hr

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Nesuicidalno samoozljeđivanje (NSSO) je direktno i namjerno, samonaneseno oštećenje vlastitog tjelesnog tkiva bez svjesne suicidalne namjere (1). Zbog rasprostranjenosti među adolescentima i štetnog utjecaja na tjelesno i mentalno zdravlje, te socijalno funkcioniranje značajan je javno zdravstveni problem mladih. NSSO najčešće ima početak u adolescentnoj dobi, sa stopama prevalencije oko 17 % u općoj populaciji (2,3) i 40-60 % u kliničkim populacijama adolescenata (4,5). NSSO može imati različite oblike poput rezanja, grebanja, ubadanja kože, urezivanja znakova, udaranja dijelovima tijela, paljenja i sprječavanja cijeljenja rana, pri čemu djevojčice najčešće koriste rezanje, a dječaci udaranje kao metodu samoozljeđivanja (6,7). NSSO ima različite intrapersonalne i interpersonalne funkcije poput regulacije afekta, antidisocijativne, antisuicidalne i samokažnjavajuće funkcije, uspostavljanje interpersonalnih granica i utjecaja, poput signaliziranja vlastitih poteškoća i pokušaja izbjegavanja neugodnih situacija (8-10). U etiologiji NSSO uključen je niz bioloških, psiholoških i socijalnih čimbenika. Meta-analize čimbenika rizika za NSSO pokazuju da najveću prediktivnu vrijednost imaju ranija prisutnost NSSO, poremećaji ličnosti iz sklopa B i beznadežnost (11,12). Drugi značajni čimbenici rizika su negativni životni događaji, izloženost vršnjačkom na-

**INTRODUCTION**

Nonsuicidal self-injury (NSSI) is the direct, deliberate and self-inflicted destruction of body tissue in the absence of conscious suicidal intent (1). Due to high prevalence rates among adolescents and harmful impacts on physical and mental health and social functioning, it has emerged as a major public mental health concern. NSSI most commonly occurs in adolescence, with a lifetime prevalence in general samples of adolescents of about 17% (2,3), and 40-60% in adolescent clinical samples (4,5). It mainly involves methods like cutting, scratching, carving, banging, hitting against objects, burning, punching, biting, interfering with wound healing (6). Girls are more likely to engage in self-cutting behaviour, whereas boys are more likely to engage in self-hitting (7). NSSI serves multiple intrapersonal and interpersonal functions like affect regulation, anti-dissociation, anti-suicidal and self-punishment functions and to establish interpersonal boundaries and influences, like signalling personal distress and trying to avoid difficult situations (8-10). Many biological, psychological and social factors are involved in the aetiology of NSSI. According to a recent meta-analysis on risk factors of NSSI, cluster B personality disorders, prior history of NSSI and hopelessness yield the strongest predictive values (11,12). Other risk factors associated with NSSI are adverse childhood experiences, being bullied, exposure to

silju i adolescentima koji se samoozljeđuju, simptomi poput depresije, anksioznosti, nisko samopoštovanje i poteškoće u regulaciji afekta (13,14).

NSSO u adolescenata povezano je s visokim psihijatrijskim morbiditetom, osobito s poremećajima raspoloženja, graničnim poremećajem ličnosti, anksioznim poremećajima, posttraumatskim stresnim poremećajem i poremećajima uzimanja psihoaktivnih tvari (15,16). Empirijski dokazi upućuju da je funkcioniranje ličnosti važna psihopatološka dimenzija povezana s nesuicidalnim samoozljeđivanjem (17).

U novoj konceptualizaciji dijagnosticiranja poremećaja ličnosti u Sekciji III DSM 5 identitet je jedan od ključnih kriterija u procjeni sa selfom povezanog funkcioniranja ličnosti. Definiran je kao iskustvo sebe kao jedinstvenog, s jasnim granicama između selfa i drugih, stabilnog samopoštovanja i točnosti procjene sebe, s kapacitetom za reguliranje cijelog raspona emocionalnih stanja (18).

Adolescencija je razdoblje visokog rizika za razvoj poteškoća u funkcioniranju ličnosti i pojavu niza disfunkcionalnih ponašanja, među kojima je i NSSO. Jedan od ključnih zadataka adolescencije je formiranje integriranog i stabilnog identiteta. Razvoj identiteta se može opisati kao kontinuum na čijem je jednom kraju integrirani identitet, a na drugom difuzija identiteta koju obilježava nesposobnost definiranja sebe i drugih, deficiti u autonomnom funkcioniranju i nesposobnost formiranja učinkovitih ciljeva, vrijednosti i ideala na kojima se temelji identitet odraslih (19,20). Siguran osjećaj identiteta omogućava adolescentu razvijanje zadovoljavajućeg prijateljstva, formiranje jasnih životnih ciljeva, na prikladan način komuniciranje s roditeljima i učiteljima, uspostavljanje intimnih odnosa i održavanje pozitivnog samopoštovanja. Difuzija identiteta se sagledava kao temelj za razvoj patologije ličnosti, te je u osnovi niza neprilagođenih i disfunkcionalnih

peer NSSI and symptoms like depression, anxiety, poor self-esteem and deficits in emotion regulation (13,14). NSSI in adolescents is associated with high psychiatric morbidity, especially mood disorders, borderline personality disorder, anxiety disorders, posttraumatic stress disorder and substance use disorders (15,16). Empirical findings show that the psychopathological dimension more consistently related to NSSI concerns personality functioning (17).

In the new conceptualisation of personality disorders in Section III of the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM 5), the construct of identity has been integrated as an essential diagnostic criterion for self-related personality functioning (18). Identity is defined as the experience of oneself as unique, with clear boundaries between self and others, stability of self-esteem and accuracy of self-appraisal, capacity for and ability to regulate a wide range of emotional experiences (18).

Adolescence is a vulnerable period for the emergence of maladaptive and dysfunctional behaviours, including NSSI. The core developmental task of adolescence is to establish a stable, integrated identity. Identity development can be described as a continuum with an integrated personal identity at the one end, and identity diffusion at the other end (19). Identity diffusion is viewed as a lack of integrated concept of the self and significant others, with deficits in autonomous functioning, and inability to develop a workable set of goals, values and commitments on which an adult identity is based (19).

A stable sense of identity permits the adolescent to develop rewarding and satisfying friendships, have clear life goals, interact appropriately with parents and teachers, establish intimate relations and have positive self-esteem. Identity diffusion is seen as the basis for subsequent personality pathology, and for different dysfunctional behaviours (20). It is

ponašanja (20). Pretpostavlja se da poteškoće u formiranju identiteta u adolescenciji imaju važnu ulogu u nastanku i održavanju NSSO u adolescenata.

## CILJ ISTRAŽIVANJA

Ciljevi istraživanja su bili ispitati klinička obilježja hospitaliziranih adolescenata s NSSO, te istražiti razlike u razvoju identiteta između pacijenata adolescentne dobi s NSSO i opće (školske) populacije.

## METODE

### Ispitanici

Školski uzorak se sastojao od 294 učenika dvije osnovne škole te jedne redovne srednje škole na području grada Zagreba. Dob učenika bila je između 11 i 18 godina (prosjeak 15,0; SD=1,7). Uzorak se sastojao od 59,2 % dječaka i 40,8 % djevojčica.

Klinički uzorak sastojao se od adolescenata koji su prvi put hospitalizirani u Psihijatrijskoj bolnici za djecu i mladež u Zagrebu i kod kojih je na temelju kliničke procjene multidisciplinskog tima i odgovora na upitniku Inventar namjernog samoozljeđivanja utvrđena prisutnost NSSO tijekom šest mjeseci prije hospitalizacije. Ukupno je uključen 31 adolescent, 29 (95,5 %) djevojaka i 2 (6,5 %) mladića, raspona dobi od 12 do 17 godina (prosječna dob = 15,2; SD=1,5).

Kriteriji isključivanja su bili: prisutnost suicidalnog ponašanja (prijetnje i pokušaji), psihotična epizoda, pervazivni razvojni poremećaj, kognitivna ograničenja (IQ<80), te neurološke i kronične tjelesne bolesti.

### Instrumenti

*Procjena razvoja identiteta u adolescenciji (Assessment of Identity Development in Adolescence, AIDA) (21)* je samoocjenski upitnik namijenjen

assumed that inability to form integrated identity plays an important role in the emergence and maintenance of NSSI among adolescents.

## AIMS OF THE STUDY

The aims of the study were to examine clinical characteristics of hospitalized adolescents with NSSI and differences in identity development between inpatients with NSSI and general (school) adolescent population.

## METHODS

### Participants

The school sample consisted of students of two elementary schools and one regular public high school from the city of Zagreb. Students were aged 11 to 18 years (M=15.0; SD= 1.7). The sample included 59.2% boys and 40.8% girls.

The clinical sample (n= 31) involved adolescents of both genders, aged 12 to 18 years, who were hospitalised for the first time at the Psychiatric Hospital for Children and Youth in Zagreb. The inclusion criterion was the presence of NSSI during six months prior to hospitalisation, established on the basis of a multidisciplinary team clinical evaluation and adolescents' answers in the Deliberate Self-Harm Inventory. The sample consisted of 29 (95.5%) girls and 2 (6.5%) boys, ranging from 12 to 17 years (mean 15.2, SD 1.5).

The exclusion criteria included the presence of suicidal behaviour (threats and attempts), the current psychotic episode, pervasive developmental disorders, intellectual disabilities (IQ<80) and significant medical illness.

### Instruments

*The Assessment of Identity Development in Adolescence (AIDA) (21)* is a self-report questionnaire which measures identity development in ado-

ispitivanju razvoja identiteta kod adolescenata u dobi od 12 do 18 godina ( $\pm 2$  godine) u rasponu od "zdravog" prema "poremećenom" identitetu s ciljem razlikovanja zdravog razvoja identiteta od krize identiteta i difuzije identiteta. Upitnik se sastoji od 58 čestica na koje se odgovara na ljestvici Likertovog tipa od 0 (uopće nije točno), 1 (uglavnom nije točno), 2 (nisam siguran), 3 (uglavnom je točno) i 4 (da, u potpunosti je točno). Ljestvice su kodirane prema patologiji, tako da visoki rezultati upućuju na visoku razinu oštećenja. Sve stavke se zbrajaju do ukupnog rezultata u rasponu od integracije do difuzije identiteta. Ukupna ljestvica Difuzije identiteta sastoji se od 2 primarne ljestvice: Diskontinuitet i Inkoherencija, od kojih je svaka zbroj rezultata na tri podljestvice koje odražavaju određena područja psihosocijalnog funkcioniranja adolescenata. Ukupna ljestvica Difuzije identiteta i primarne ljestvice Diskontinuitet i Inkoherencija u originalnoj verziji AIDA imaju koeficijente unutarnje konzistencije Cronbach alfa 0,94, 0,86, 0,92 .

Rezultati ispitivanja u školskoj populaciji pomoću kulturalno prilagođene hrvatske verzije upitnika AIDA pokazali su dobru pouzdanost i valjanost, sličnu originalnoj verziji AIDA (Cronbach alfa za ukupnu ljestvicu Difuzije identiteta 0,93, ljestvicu Diskontinuiteta 0,83 i Inkoherencije 0,89. U kliničkom uzorku je također dobiven visoki koeficijent pouzdanosti Cronbach alfa 0,90 za Difuziju identiteta, 0,81 za ljestvicu Diskontinuiteta i 0,84 za ljestvicu Inkoherencije.

*Inventar namjernog samoozljeđivanja (Deliberate Self Harm Inventory, DSHI) (22)* je samoocjen-ski upitnik koji sadrži 17 pitanja koja ispituju različite aspekte nesuicidalnog samoozljeđivanja, uključujući tip, učestalost, trajanje i jačinu NSSO.

Utvrđeno je da upitnik ima visoku unutarnju konzistenciju, Cronbach alfa 0,82, adekvatnu konstruktivnu, konvergentnu i diskriminativnu valjanost i test-retest pouzdanost.

lescents aged 12-18 years ( $\pm 2$  years). It offers a range from a "healthy" to "disturbed" identity in order to differentiate healthy identity development from a current identity crisis and a severe identity diffusion. AIDA contains 58 items with a 5-step format (0=no, 1=mainly no, 2=not sure, 3=mainly yes and 4=yes). The items are coded towards pathology, thus high scores signal a high amount of impairment. All items add up to a total score ranging from identity integration to identity diffusion. The total scale Identity Diffusion consists of two primary scales, Discontinuity and Incoherence, each assessed as a sum of three subscales reflecting different psychosocial areas of adolescents functioning.

In the original German AIDA version scale reliabilities were good, with Cronbach's alpha 0.94 on the total level (Diffusion), 0.87 (Discontinuity) and 0.92 (Incoherence).

A culture-adapted Croatian version of AIDA in mixed Croatian schools showed good reliability similar to the original AIDA version (Cronbach's alpha for Identity Diffusion of 0.93, Discontinuity 0.83 and Incoherence 0.89). In the clinical sample of adolescents with NSSI, AIDA showed good reliabilities (Diffusion: Cronbach's alpha= 0.90, Discontinuity: Cronbach's alpha= 0.83, Incoherence: Cronbach's alpha= 0.84).

*The Deliberate Self-Harm Inventory (DSHI) (22)* is a 17-item self-report questionnaire developed to assess deliberate self-harm defined as deliberate, direct destruction of body tissue without conscious suicidal intent. This measure assesses frequency, age of onset, duration, date of last occurrence and severity of 17 types of self-harming behaviour.

It has been established that DSHI has high internal consistency, Cronbach's alpha= 0.82, adequate construct, convergent and discriminant validity, as well as adequate test-retest reliability.

*The sociodemographic questionnaire* was designed for the purposes of this study and assessed variables like age and gender of the participants,

*Upitnik sociodemografskih podataka* konstruiran je za potrebe ovog istraživanja, te je uključivao podatke o dobi i spolu ispitanika, obrazovanju i zaposlenosti roditelja, broju djece u obitelji, materijalnom stanju obitelji (subjektivna procjena roditelja), tjelesnim bolestima djeteta, ranijem psihijatrijskom liječenju adolescenta i prisutnosti psihijatrijskih bolesti kod roditelja.

## Postupak

Provođenje istraživanja u kliničkom uzorku adolescenata odobrilo je Etičko povjerenstvo Psihijatrijske bolnice za djecu i mladež, Zagreb. Ispitanici su pozvani na sudjelovanje nakon inicijalne procjene od multidisciplinskog tima koji se sastojao od dječjih i adolescentnih psihijatarâ, kliničkog psihologa, neurologa i socijalnog radnika. Psihijatrijske dijagnoze utvrđene su prema kriterijima Međunarodne klasifikacije bolesti i srodnih zdravstvenih problema, Deseta revizija (25), pri čemu su poštovana pravila najbolje procjene tijekom dijagnostičkog postupka. U procjeni su sudjelovala 3 do 4 psihijatra, korišteno je više izvora podataka, a prikupljeni podatci su razmatrani na sastanku tima, kada je postavljena dijagnoza. U slučaju nemogućnosti postizanja konsenzusa konačnu dijagnozu je postavio psihijatar s najduljim kliničkim iskustvom.

Nakon informiranja, roditelji su potpisali informirani pristanak za sudjelovanje svojeg djeteta u ispitivanju, dok su adolescenti usmeno iskazali suglasnost za sudjelovanje.

Ispitivanje se provodilo individualno, tijekom prvih deset dana hospitalizacije, u prisutnosti istraživača koji je prije i tijekom ispitivanja osigurao sva potrebna objašnjenja. Ispitanici su imali mogućnost odustati u bilo kojem trenutku ispitivanja. Jedan je ispitanik tijekom ispitivanja odustao.

Suglasnost za provođenje istraživanja u školskoj populaciji je dalo Ministarstvo znanosti i obrazovanja Republike Hrvatske i Etičko povje-

renje roditelja, obrazovanje, zaposlenost roditelja, broj djece u obitelji, materijalno stanje obitelji, tjelesne bolesti djeteta, ranije psihijatrijsko liječenje adolescenta i prisutnost psihijatrijskih bolesti kod roditelja.

## Procedure

The study in the clinical sample of adolescents was approved by the Ethics Committee of the Psychiatric Hospital for Children and Youth in Zagreb. The adolescents were invited to participate after an initial assessment by a multidisciplinary treatment team composed of child and adolescent psychiatrists, a clinical psychologist and a social worker. Psychiatric diagnoses were made according to the International Classification of Diseases, 10<sup>th</sup> Revision (ICD-10) criteria (25). During the diagnostic process, a best estimate diagnostic procedure was followed. It involved the use of three to four child and adolescent psychiatrists in determining the diagnosis, the use of more than one source of information and a meeting in which accumulated data was discussed and a diagnosis was determined. In case of disagreement in reaching a consensus after discussions, the most experienced psychiatrist made the final decision. After providing information, parents/guardians gave written informed consent, and adolescents verbally expressed their consent to participate in the study. The adolescents were assessed individually within the first ten days following admission, in the presence of a researcher who provided all necessary explanations before and during the examination. The participants had the opportunity to give up at any point of the examination. One adolescent ceased participating during the examination.

The study in the school sample was approved by the Ministry of Science and Education of the Republic of Croatia, and by the Ethics Committee of the Psychiatric Hospital for Children and

renstvo Psihijatrijske bolnice za djecu i mladež. Pozivi za sudjelovanje u istraživanju upućeni su dvjema osnovnim i redovnim srednjim školama na području grada Zagreba izabranim slučajnim odabirom. Učenici su ispunjavali upitnik Procjena razvoja identiteta u adolescenciji nakon potpisivanja pristanka od roditelja i vlastite usmene suglasnosti. Podatci su prikupljeni u školi, u razredu, u grupnom okruženju, tijekom jednog školskog sata. Ispitanici su upućeni da upitnik ispunjavaju sami, bez diskusije sa školskim kolegama, u prisutnosti suradnika u istraživanju, koji je u slučaju potrebe pojašnjavao pitanja tijekom ispunjavanja upitnika.

## Statistička obrada

Obrada podataka uključivala je deskriptivnu statistiku (srednja vrijednost, standardna devijacija, frekvencija) i t-test za nezavisne uzorke. Rezultati su interpretirani kao značajni uz razinu značajnosti  $p < 0,05$ .

## REZULTATI

### Klinička obilježja hospitaliziranih adolescenata s NSSO

Adolescenti s NSSO samoozljeđivali su se na različite načine: rezanjem, urezivanjem riječi i znakova, grebanjem, zabadanjem oštih predmeta, paljenjem, udaranjem šakom, griženjem, namjernim sprječavanjem cijeljenja rana, trljanjem kože i udaranjem glavom, pri čemu je rezanje najčešći oblik, prisutan kod svih adolescenata. Slika 1 prikazuje učestalost pojedinih oblika samooljeđivanja u kliničkoj skupini adolescenata.

Ispitivanjem je utvrđeno da je jedan adolescent (3,2 %) koristio samo jedan tip samoozljeđivanja, 13 adolescenata (41,9 %) dva do četiri tipa, a više od polovine ispitanika (54,9 %) je koristilo više od pet tipova NSSO. Rezultati ukazuju da adolescenti češće koriste više tipova NSSO.

Youth, Zagreb. Invitations to participate in the study were sent to two elementary schools and two high schools selected randomly. The students completed the Assessment of Identity Development in Adolescence questionnaire. Data collection took place at the schools after parents gave written informed consent, in the classroom, in a group-setting during one school lesson. The participants were instructed to fill out the questionnaires alone, without discussing them with their classmates. Questions could be clarified by the research assistant during the completion of the questionnaire.

## Statistical analysis

Statistical analysis included descriptive statistics (mean, standard deviation or frequencies where appropriate) and the t-test for independent samples. The results were reported as significant at  $p < 0.05$ .

## RESULTS

### Clinical characteristics of the inpatient adolescents with NSSI

The patients engaged in various forms of NSSI: cutting, carving words and signs into skin, severe scratching, sticking sharp objects into skin, burning, fist hitting, biting, interference with wound healing, skin rubbing and head banging. Cutting was the most frequent form of NSSI present in all patients. Figure 1 presents frequencies of different NSSI forms of the patients.

The results showed that the patients dominantly used multiple types of NSSI. One adolescent (3.2%) used only one type of NSSI, 13 patients (41.9%) used two to four types, and more than half of the patients (54.9%) used more than five types of NSSI, which indicated a high diversification of NSSI in the examined clinical population.

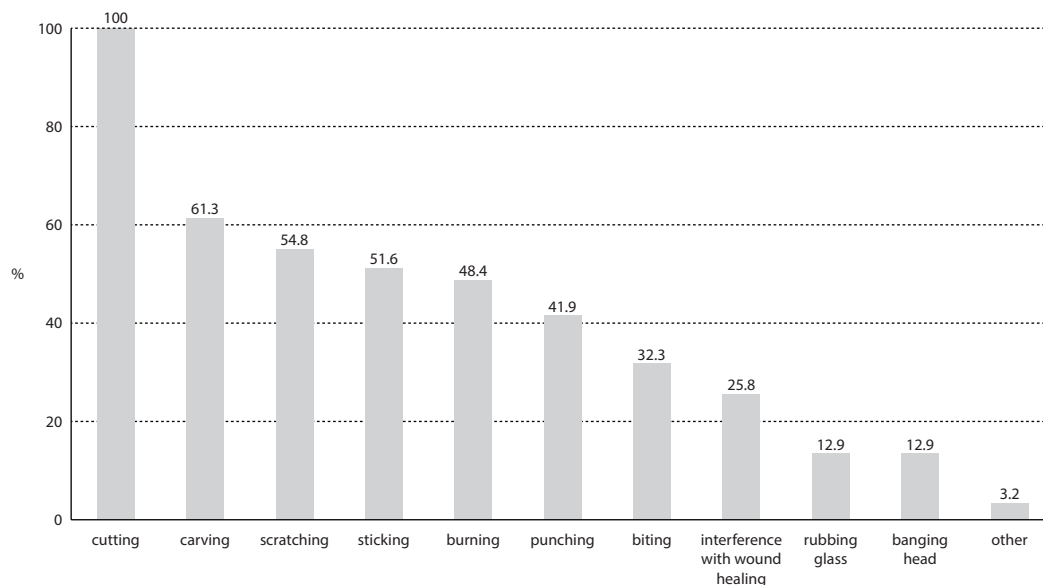


FIGURE 1. Types of nonsuicidal self-injury (N = 31)

Adolescenti u ovom kliničkom uzorku su bolesnici s dominantno ponavljajućim samoozljeđivanjem. Više od 5 epizoda samoozljeđivanja bilo je prisutno kod 93,5 % ispitanika (slika 2).

Kliničkom procjenom multidisciplinskog tima u 22 adolescenata (71,0 %) dijagnosticiran je internalizirajući poremećaj (F32 Depresivna epizoda, F33 Povratni depresivni poremećaj, F43.2 Poremećaj prilagodbe, F93 Emocionalni poremećaji s početkom specifično u djetinjstvu). U 7 bolesnika (22,6 %) postavljena je dijagnoza graničnog poremećaja ličnosti F60.3, a

Adolescents in this sample were patients with predominantly repetitive NSSI. More than 5 episodes of NSSI were present in 93.5% of participants (Figure 2).

Based on clinical evaluation, 22 inpatients (71.0%) were diagnosed with internalising disorders (F32 Depressive episode, F33 Recurrent depressive disorder, F 43.2 Adjustment disorder, F93 Emotional disorders with the beginning in the childhood). Seven patients (22.6%) were diagnosed with borderline personality disorder (F60.3), and 2 patients (6.4%) were

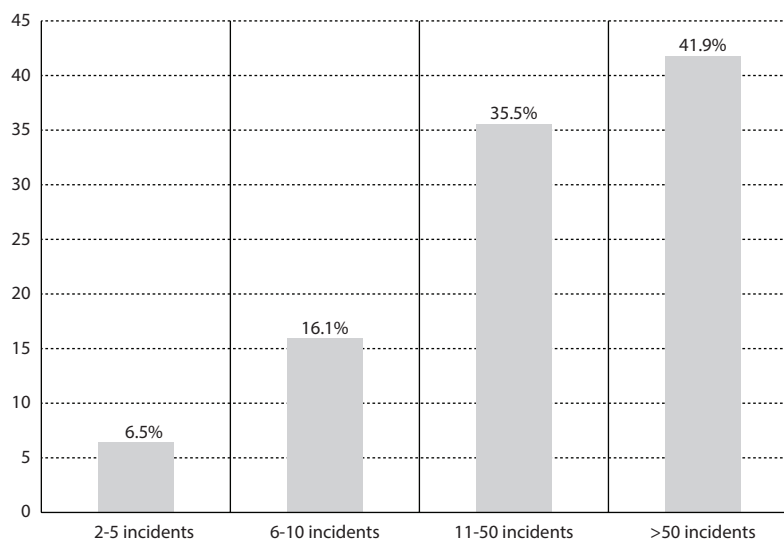


FIGURE 2. Frequency of nonsuicidal self-injury



u 2 bolesnika (6,4 %) eksternalizirani poremećaj (F91 poremećaj ponašanja).

diagnosed with externalising disorders (F91 Conduct disorder).

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## Razlike u razvoju identiteta između opće (školske) populacije adolescenata i kliničke populacije adolescenata s NSSO

Rezultati t-testa pokazali su postojanje statistički značajne razlike između skupina na svim ljestvicama AIDA (tablica 1). Hospitalizirani adolescenti s NSSO imali su viši ukupni rezultat Difuzije identiteta ( $M=121,8 > M=75,6$ ), te više rezultate na primarnim ljestvicama diskontinuiteta ( $M=56,1 > M=32,8$ ) i inkoherenције ( $M=65,7 > M=42,8$ ).

## DISKUSIJA

Jedan od ciljeva istraživanja bio je ispitati kliničke karakteristike hospitaliziranih adolescenata s NSSO. U kliničkom uzorku su dominantno bile zastupljene djevojke (95,5 %), što je u skladu s podacima dobivenim u većini dosadašnjih istraživanja (2,7). Prosječna dob ispitanika je bila 15,2 godine što je također u skladu s rezultatima dosadašnjih istraživanja u kojima je utvrđena najviša prevalencija NSSO kod adolescenata u dobi 15 do 16 godina (4,6). Rezultati pokazuju da su hospitalizirani adolescenti koristili različite oblike samoozljeđivanja što je potvrđeno i u ranijim istraživanjima (2,6). Također, u većine hospitaliziranih adolescenata NSSO je bilo repetitivno uz korištenje multiplih oblika samoozljeđivanja od istih pa-

## Differences in identity development between school sample and clinical sample of inpatients with NSSI

The t-test results showed statistically significant differences between the groups in all AIDA scales (Table 1). Adolescents with NSSI had a higher total score of Identity Diffusion ( $M=121.8 > M=75.6$ ), and higher scores on the primary scales of Discontinuity ( $M=56.1 > M=32.8$ ) and Incoherence ( $M=65.7 > M=42.8$ ).

## DISCUSSION

One of the aims of this study was to examine the characteristics of inpatient adolescents with NSSI. In the clinical sample, girls were predominantly represented (95.5%), which is consistent with the data reported in previous studies (2,7). The average age of inpatient adolescents with NSSI in our study was 15.2 years, which is also in line with previous research showing that the prevalence of NSSI was highest around the age of 15 to 16 (4,6).

Our results showed that inpatient adolescents used various forms of NSSI as found in other studies of NSSI in adolescents (2,6). Also, in the majority of adolescents NSSI was repetitive and multiple forms of NSSI were used by individual patients, and previous research showed

**TABLE 1.** Differences in Identity Diffusion, Discontinuity and Incoherence (AIDA) between adolescents with NSSI and school population. Significance  $p < 0.05$ ; effect size  $d > 0.20$  small,  $d > 0.50$  medium,  $d > 0.80$  large.

	School population N=294		Adolescents NSSI n=31		t	p	d
	M	SD	M	SD			
Diffusion	75.6	27.9	121.8	32.7	8.73	0.00	1.53
Discontinuity	32.8	12.1	56.1	15.4	9.89	0.00	1.69
Incoherence	42.8	17.1	65.7	19.8	7.04	0.00	1.23

cijenata, a ranija istraživanja utvrdila su povezanost s težinom komorbidne psihopatologije (17). U dosadašnjim istraživanjima utvrđene su i rodne razlike u oblicima samoozljeđivanja, te se djevojčice u većini slučajeva ozljeđuju rezanjem, a dječaci udaranjem (7). Zbog malog broja mladića u našem uzorku nije bilo moguće ispitati rodne razlike u korištenju različitih oblika NSSO.

Ispitivanjem razvoja identiteta utvrđena je razlika između kliničke skupine adolescenata i školske populacije. Adolescenti s NSSO imali su značajno više rezultate difuzije identiteta, odnosno veće poteškoće u razvoju identiteta što može upućivati da procesi u formiranju identiteta doprinose povećanoj vulnerabilnosti adolescenata za NSSO. Dosadašnja istraživanja identiteta kod adolescenata s NSSO upućuju da poteškoće u formiranju identiteta mogu povećati vulnerabilnost za NSSO. Rezultati kvalitativne analize 56 autobiografskih online iskaza adolescenata s NSSO u kontekstu razvoja selfa i identiteta Breena i sur. (24) upućuju da NSSO može biti sredstvo upravljanja negativnim emocijama povezanim s negativnim self konceptom, izvor self identifikacije, način postizanja osjećaja koherentnog selfa i grupnog identiteta. Claes i sur. (25) pružili su izravniji dokaz o povezanosti procesa u formiranju identiteta i NSSO. U uzorku učenika srednjih škola utvrđena je pozitivna povezanost između konfuzije identiteta i NSSO, te negativna povezanost između sinteze identiteta i NSSO, neovisno o spolu, dobi i postojanju depresije. Ispitujući procese i statuse u formiranju identiteta kod učenika srednjih škola Luyckx i sur. (26) uočili su slične rezultate. Kod adolescenata kod kojih je u vrijeme istraživanja bilo prisutno NSSO nađena je jasna povezanost s difuzijom identiteta. Luyckx i sur. (27) su u uzorku od 384 adolescentice i 131 bolesnice s dijagnosticiranim poremećajem hranjenja i graničnim poremećajem ličnosti ispitivali prediktornu snagu formiranja identiteta u odnosu na NSSO neovisno o drugim poznatim prediktorima poput sociodemografskih

a relationship with the severity of comorbid psychopathology (17). Previous studies have found gender differences in the NSSI methods used, with girls mostly engaging in self-cutting and boys in self-hitting (7). Due to a small number of boys in our sample, it was not possible to examine the gender differences in NSSI methods used.

Differences in identity development between inpatient adolescents with NSSI and school population were detected in our study. Adolescents with NSSI had significantly higher results in identity diffusion. This may indicate that problems in identity formation can contribute to increased adolescent vulnerability to NSSI.

Previous studies of adolescents with NSSI suggest that difficulties in identity formation can contribute to vulnerability to NSSI. Results of the qualitative analysis of 56 online autobiographic narratives of adolescents engaging in NSSI in the context of the development of self and identity by Breen et al. (24) suggests that NSSI may provide a source of self-identification in the service of developing self-identity, a means for managing negative emotions specifically related to negative self-concepts, and may provide a basic sense of coherent self and group identity. Claes et al. (25) provided more direct evidence of association between the processes of identity formation and NSSI. In the sample of high school students, they found that NSSI was positively associated with identity confusion and negatively with identity synthesis in adolescents, beyond age, gender and depression. Exploring the processes and statuses of identity formation in high school students, Luyckx et al. (26) found similar results. In adolescents who were engaged in NSSI during the study they found that identity diffusion was uniquely related to NSSI. Luyckx et al. (27) examined the predictive power of identity formation towards NSSI, beyond well-established predictors such as demographic variables, anxiety and depression, in the sample of 348 female

varijabli, anksioznosti i depresije. Konfuzija i sinteza identiteta bile su značajno povezane s NSSO. Dobiveni rezultati su upućivali da konfuzija identiteta kod adolescentica pozitivno, a sinteza identiteta kod bolesnica negativno predviđaju NSSO. Gandhi i sur. (28) su kod učenika srednjih škola istraživali vezu između NSSO, identiteta i privrženosti s majkama i vršnjacima. Utvrđeno je da je pozitivna povezanost između otuđenja u odnosima s majkama i NSSO posredovana manjkavom sintezom identiteta.

Dobiveni rezultati upućuju na važnost istraživanja povezanosti i međusobnih djelovanja između identiteta i različitih čimbenika tijekom razvoja, budući da bi to moglo rasvijetliti faktore koji povećavaju vulnerabilnost adolescenata za NSSO, te upućivati na postojanje određenih razvojnih puteva koji potencijalno vode do NSSO. Time bi se moglo unaprijediti strategije prevencije i kliničke intervencije kojima bi se promicanjem sinteze identiteta smanjila učestalost NSSO kod adolescenata.

Jung i sur. (29) su ispitali razlike u razvoju identiteta kod adolescenata s različitim psihičkim poremećajima pomoću upitnika AIDA (30,31). Istraživanje Junga i sur. je pokazalo da su adolescenti s poremećajem ličnosti, većinom graničnim poremećajem ličnosti i drugim poremećajima ličnosti tipa B, imali značajno više rezultate na svim ljestvicama AIDA, ne samo u odnosu na zdravu populaciju, već i u odnosu na bolesnike s drugim psihijatrijskim poremećajima. Bolesnici s internaliziranim poremećajima (depresivni i anksiozni) imali su blago povišenje, ispod klinički značajne norme, koje se moglo interpretirati kao aktualna kriza identiteta, dok u bolesnika s eksternaliziranim poremećajima (poremećaji ponašanja i hiperkinetički poremećaj) nije nađena razlika u odnosu na školsku populaciju. Bolesnici s poremećajem ličnosti, osobito graničnim poremećajem ličnosti, pokazuju značajno povišene rezultate, što upućuje da je difuzija identiteta na način kako je definirana u modelu AIDA dominantno

adolescents and 131 psychiatric patients with borderline personality disorder and eating disorder. Identity confusion and synthesis were significantly related to NSSI. Identity confusion in adolescents positively predicted NSSI and identity synthesis in patients negatively predicted NSSI. Gandhi et al. (28) examined associations between NSSI, identity formation and attachment with mother and peers in high school students. They found that the positive association between peer alienation and NSSI was partially mediated by a lack of identity synthesis.

These findings indicate that exploring developmental linkages is especially important as they may highlight factors that increase vulnerability of adolescents to engaging in NSSI and suggest the presence of important pathways potentially leading to NSSI. This can improve prevention strategies and clinical interventions that may decrease vulnerability to NSSI by promoting identity synthesis.

Jung et al. (29) examined differences in identity development between adolescents with different psychiatric disorders using the AIDA questionnaire (30,31). Jung et al. (29) found that patients with personality disorders, mostly borderline or other B cluster personality disorders scored on all AIDA scales remarkably higher than the healthy norm population, and higher than the other patient groups with internalising or externalising disorders. Patients with internalising disorders (anxiety and depression) scored slightly above the population norm, which may be interpreted as the presence of a current identity crisis. Patients with externalising disorders (ADHD and conduct disorder) did not differ from the school population in their identity development (29). It is in line with the AIDA definition of pathology-related identity development that patients with a personality disorder, especially borderline, show elevated scores, indicating that identity diffusion as defined in the AIDA

obilježje za poremećaj ličnosti, a ne samo za psihijatrijski poremećaj općenito.

Rezultate je potrebno razmatrati u okviru ograničenja ovog istraživanja. U ovom istraživanju ispitivane su razlike u razvoju identiteta između učenika i dijagnostički heterogene skupine adolescenata s NSSO, ali ne i između pojedinih dijagnostičkih kategorija u skupini adolescenata s NSSO, što je ograničenje studije. Ispitivanje razvoja identiteta u većim i dijagnostički homogenim skupinama adolescenata trebalo bi biti predmet budućih istraživanja. Nadalje, zbog malog broja mladića u kliničkom uzorku nisu ispitane razlike između spolova u razvoju identiteta i karakteristikama NSSO. Također, nisu uspoređivani adolescenti s rijetkim i ponavljajućim samoozljeđivanjem koji bi se mogli razlikovati u obilježjima razvoja identiteta. U postupku utvrđivanja dijagnoze nisu korišteni relevantni strukturirani dijagnostički upitnici, već je dijagnoza postavljena na temelju kliničke procjene.

Ovo je presječna studija koja pokazuje postojanje razlika u razvoju identiteta među adolescentima, te upućuje kao i većina dosadašnjih studija na potrebu provođenja longitudinalnih istraživanja, kako bi se rasvijetlila uzročno-posljedična povezanost između NSSO i razvoja identiteta. Konačno, rezultati našeg istraživanja dobiveni su ispitivanjem samo hospitaliziranih bolesnika, te buduća istraživanja trebaju ispitati razvoj identiteta u drugim kliničkim populacijama adolescenata (ambulantni pacijenti, parcijalna hospitalizacija – dnevna bolnica).

## ZAKLJUČAK

Istraživanjem su utvrđene veće poteškoće u razvoju identiteta kod hospitaliziranih adolescenata s NSSO u odnosu na školsku populaciju. Ovi rezultati mogu upućivati da procesi u formiranju identiteta doprinose povećanoj vulnerabilnosti adolescenata za NSSO. Procje-

model is a distinguishing feature of personality disorders, not only of psychiatric disorder in general.

The results of this study should be considered within the study limitations. In our study, differences in identity development between students and a heterogeneous diagnostic group of inpatient adolescents with NSSI were examined. Further research is needed to examine identity development in homogenous diagnostic groups of adolescent patients. Furthermore, because of a small number of boys in the clinical sample, we did not investigate gender differences in identity development and clinical characteristics of NSSI. Also, we did not compare adolescents with sporadic and repetitive self-injuries who may differ in identity development. The psychiatric diagnosis in our study was based only on clinical evaluation with the lack of reliable structured diagnostic interview in the diagnostic process. The study design was cross-sectional and thus no causal relationships can be established. Longitudinal studies are needed to examine the causal relationship between impairments in identity development and NSSI. The clinical sample in our study included only inpatient adolescents, but future research should examine identity development in other clinical populations (outpatients, partial hospitalization - day hospital patients).

## CONCLUSIONS

This study found higher disturbances of identity development in inpatient adolescents with NSSI compared to the school population. These results may indicate that problems in identity formation can contribute to increased adolescent vulnerability to NSSI.

The assessment of identity development in adolescence is important in the research of developmental processes and specific pathologi-

na razvoja identiteta već u adolescentnoj dobi značajna je u ispitivanju razvojnih procesa i specifičnih patoloških rizika, te u dijagnostičkoj procjeni i tretmanu adolescenata. Stoga je važno razvijanje pouzdanih i valjanih instrumenata za procjenu identiteta u adolescenciji. Upitnik AIDA omogućuje uvid u važne aspekte razvoja identiteta, te se pokazao pouzdan i u populaciji hrvatskih adolescenata.

Bolje razumijevanje odnosa između poteškoća u razvoju identiteta i NSSO moglo bi pomoći u unaprjeđenju procjene i liječenja adolescenata s ovim značajnim problemom mentalnog zdravlja, kao i ranoj detekciji mladih s rizikom za samoozljeđujuće ponašanje.

Stoga su potrebna dalja istraživanja međudjelovanja razvojnih čimbenika (formiranje identiteta) i drugih čimbenika unutar složene mreže bioloških i okolinskih faktora koji utječu na vulnerabilnost za NSSO. Ispitivanje povezanosti sociodemografskih obilježja, traumatskih iskustava, obiteljske kohezivnosti, odnosa s roditeljima i vršnjacima s razvojem identiteta i s NSSO kod adolescenata moglo bi doprinijeti boljem razumijevanju ovog značajnog problema mentalnog zdravlja mladih.

cal risks, as well as in the diagnostic evaluation and treatment of adolescents. Therefore, it is important to develop reliable and valid assessment instruments that are focused on identity issues. The AIDA questionnaire provides an insight into important aspects of identity development and has also proven to be a reliable instrument in the population of Croatian adolescents.

A better understanding of the relationship between disturbances in identity development and NSSI could improve assessment and treatment and help in the early detection of high-risk adolescents. Therefore, we need further research on the interactions between developmental (identity formation) and other related factors within a complex network of biological and environmental factors that affect the vulnerability to NSSI.

Exploring the linkages of sociodemographic characteristics, traumatic experiences, family cohesiveness, attachment with parents and peers with identity development and NSSI could contribute to a better understanding of this significant mental health problem in adolescents.

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