

DIMENZIJE LIČNOSTI KOD OSOBA SA POSTTRAUMATSKIM STRESNIM POREMEĆAJEM

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Apstrakt: Posttraumatski stresni poremećaj (PTSP) jedan je od retkih poremećaja u DSM-IV klasifikaciji koji je definisan na osnovu svog uzroka. Bez traume ovaj poremećaj ne može postojati, ali trauma nije dovoljna, odnosno, mnogi traumatizovani ljudi nemaju ovaj poremećaj. Većina integrativnih koncepata PTSP-a uzima u obzir i uticaj faktora predtraume i posttraume. Cilj ovog istraživanja je da ustanovi vezu između dimenzija ličnosti i posttraumatskog stresnog poremećaja. Uzorak čini 274 ispitanika koji su kao civili ili vojnici bili izloženi ratnim ili borbenim dejstvima. U istraživanju su korišćeni testovi za procenu ličnosti (NEO-PI-R, MCMI), kao i test za procenu izloženosti ratnim traumatskim iskustvima. Značajna razlika između grupe ispitanika sa PTSP-om i one koje nije imala ovaj poremećaj identifikovana je na NEO-PI-R skali neuroticizma, kao i na MCMI dimenzijama ličnosti: izbegavajući, zavisni, granični i paranoidni. Rezultati našeg istraživanja sugerišu da neke dimenzije ličnosti mogu biti povezane sa razvojem PTSP-a. Diskutovana su i ograničenja adekvatne procene ličnosti kod osoba sa PTSP-om.

Ključne reči: *PTSP, ličnost, poremećaj ličnosti, trauma*

UVOD

Posttraumatski stresni poremećaj (PTSP) jedan je od retkih poremećaja u DSM-IV klasifikaciji koji je definisan na osnovu svog uzroka. Bez traume ovaj poremećaj ne može postojati, ali trauma nije dovoljna, odnosno, mnogi ljudi nakon traumatskog iskustva ne razviju ovaj poremećaj. Većina integrativnih koncepata uzroka PTSP-a uzima u obzir uticaj faktora *predtraume* – lična vulnerabilnost, *traume* – karakteristike traumatskog stresora, i *posttraume* – materijalnu, emocionalnu i socijalnu podršku.

Postoji nekoliko hipoteza o vezi između ličnosti i PTSP-a (1). Prva mogućnost je da ne postoji veza između psihološke organizacije ličnosti i PTSP-a, kao i da osobe sa i bez patologije ličnosti imaju podjednaku šansu da razviju PTSP. Na osnovu ovog koncepta moglo bi se zaključiti da su priroda i intenzitet traumatskog iskustva ključni faktori u razvoju i težini kliničke slike PTSP-a.

Druga mogućnost je da ličnost predstavlja faktor vulnerabilnosti za razvoj i održavanje posttraumatske simptoma-tologije (2, 3). U studiji ratnih veterana sa PTSP-om najčešće su dijagnostikovani granični, opsesivno-kompulzivni, izbegavajući i paranoidni poremećaj ličnosti (4). U uzorku osoba koje su pretrpele traumu, korišćenjem Milonovog kliničkog multiosovinskog upitnika (MCMI) (5), kao najprominentnije utvrđene su pasivno-agresivne i izbegavajuće crte ličnosti uz visok nivo graničnosti (6, 7). U jednoj od studija iznosi se podatak da je komorbidet sa antisocijalnim poremećajem ličnosti visok, 26% 64% (8). Naša studija, izvedena na uzorku od 94 izbegle osobe, pokazala je drugačije rezultate: normalni profil ličnosti sa izraženim izbegavajućim, opsesivnim i paranoidnim crtama ličnosti (9). Istraživanje izvedeno na 174 studenata medicine Univerziteta u Beogradu, a nakon NATO bombradovanja, pokazalo je da ličnost ima važnu ulogu u manifestaciji intruzivnih PTSP simptoma (10). Studija traumatizovanih civila (11) pokazala je statistički značajno veći skor na NEO-PI-R dimenzijama neuroticizma i ekstraverzije, a niži na otvorenosti ka iskustvima, dobrodušnosti i savesnosti kod osoba sa PTSP-om u odnosu na grupu zdravih ispitanika. Karakterna patologija, takođe, može funkcionisati kao „selektor“ onih koji će se naći u potencijalno visoko rizičnim situacijama. Ovo bi važilo za one osobe čije je učešće u životno ugrožavajućim, borbenim aktivnostima, bilo dobrovoljno (12).

Treća mogućnost podrazumeva da se karakterna patologija može razviti posle traumatskog iskustva, naročito posle iskustva dugotrajne i ponavljajuće traume, kao što je iskustvo torture. Karakteristike ličnosti, na primer, zauzimaju centralno mesto u definiciji „kompleksnog PTSP-a“ (13), ili u „nespecifičnim poremećajima udruženim sa ekstremnim stresom“ (14). U MKB-10 klasifikaciji (15) postoji posebna dijagnostička kategorija – „trajne promene ličnosti posle katastrofičnog iskustva“, koja podrazumeva

promene ličnosti izazvane ekstremnim stresom. Postojeće, prominentne dimenzije ličnosti mogu se pojačati do nivoa poremećaja ličnosti, ili se poremećaj ličnosti može javiti *de novo*, nakon dugotrajnog, ponavljajućeg traumatskog stresa.

Cilj ove studije je da ustanovi vezu između PTSP-a i dimenzija ličnosti, kao i da utvrdi koje su dimenzije ličnosti najizraženije kod osoba sa dijagnozom PTSP-a.

METOD

Uzorak

Uzorak čine pacijenti Odseka za stres Instituta za mentalno zdravlje, koji su dali pismeni pristanak da učestvuju u studiji. Ispitanici su, kao civili ili vojnici, bili izloženi ratnim i borbenim dejstvima na teritoriji Bosne i Hercegovine i Hrvatske. Ukupan uzorak čini 274 ispitanika – 163 muškarca (59.5%) i 111 žena (40.5%). Prosečna starost iznosi 39.4 godina (11.12 SD) u rasponu od 18 do 65 godina. Tokom istraživanja 186 (63%) osoba je bilo na dispanzerskom, a 27 (10%) na hospitalnom tretmanu. Pritom, 71 osoba (27%) nije tražila pomoć zbog psihičkih tegoba – psihijatrijska eksploracija uglavnom im je bila potrebna radi iseljenja u druge zemlje.

Procedura

Ispitivanje je vršeno postepeno. Prvo bi psihijatar, na osnovu semi-strukturisanog kliničkog intervjua, postavio kliničku dijagnozu po DSM-IV klasifikaciji (16). Posle intervjua svi ispitanici su popunili sledeće upitnike:

Milonov klinički multiosovinski upitnik (MCMI) (17) i NEO Novi upitnik ličnosti (NEO-PI-R) (18) za procenu ličnosti i poremećaja ličnosti. MCMI je upitnik sa 175 tvrdnji i izborom tačno–pogrešno. Upitnik omogućuje skorovanje i interpretaciju osam bazičnih obrazaca ličnosti – shizoidni, izbegavajući, zavisni, histrionični, narcistični, antisocijalni, kompulzivni i pasivno-agresivni, kao i tri patološka obrasca – shizotipalni, granični i paranoidni. Skor između 75 i 85 interpretira se kao prisustvo prominentnih dimenzija ličnosti, a skor iznad 85 kao prisustvo klinički značajnog poremećaja ličnosti.

NEO-PI-R (18) je upitnik sa 240 tvrdnji i širim izborom u odgovoru: nimalo se ne slažem, ne slažem se, nisam siguran, slažem se i sasvim se slažem. Upitnik je baziran na petofaktorskom konceptu shvatanja ličnosti i poremećaja ličnosti. Interpretira pet osnovnih crta ličnosti: neuroticizam, ekstraverziju, otvorenost ka novim iskustvima, dobrodušnost i savesnost. Svaka od ovih pet skala ima i šest podskala. U interpretaciji rezultata uzima se u obzir konstelacija povišenja i sniženja pet osnovnih skala.

Upitnik traumatskog iskustva (19) je lista od 79 ratnih traumatskih stresora. Meri učestalost izloženosti svakom pojedinačnom stresoru (četvoro-

stepena skala) i nivo psihološke patnje (sedmostepena skala) izazvane traumatskim događajem. Potencijalno traumatska ratna iskustva svrstana su u šest kategorija: stresori učešća u aktivnoj borbi, stresori iza prve linije fronta, povrede, stresori vezani za zarobljeništvo, deprivacija i gubitak vojne organizacije.

Većina ispitanika je doživela višestruke stresore uključujući izbeglištvo, učešće u borbama, zarobljeništvo i povrede. Iako su svi ovi stresori van uobičajenog ljudskog iskustva, sa velikim traumatogenim potencijalom, izvršili smo korekciju traumatskog iskustva napravivši poduzorak od ispitanika koji su doživeli sa ratom povezan traumatski događaj, a koji zadovoljava kriterijum A za PTSP iz DSM-IV klasifikacije. Kriterijum A DSM-IV klasifikacije podrazumeva: a) osoba je doživela, prisustvovala ili bila suočena sa događajem koji podrazumeva stvarnu ili moguću smrt, ili pretnju sopstvenom ili tuđem fizičkom integritetu; b) reakcija osobe je podrazumevala intenzivan strah, bespomoćnost ili užas. Izjednačivši ispitanike po kvalitetu i intenzitetu traumatskog događaja, dobijeni uzorak je podeljen na eksperimentalnu grupu – osobe kod kojih je kliničkom procenom postavljena dijagnoza PTSP-a, i kontrolnu grupu – osobe bez dijagnoze PTSP-a.

Za statistički opis uzorka u pogledu ispitivanih obeležja korišćene su sledeće statističke mere: aritmetička sredina i standradna devijacija za kvantitativna obeležja (godine života), a procenti po kategorijama za kategoričke varijable (pol, oblik pružene psihijatrijske pomoći, izloženost stresorima rata i borbe).

Postojanje povezanosti PTSP-a i dimenzija ličnosti utvrđivana je primenom multivarijacione i jednosmerne analize varijanse.

Rezultati

Većina ispitanika doživela je multiple stresore. Skoro polovina naših ispitanika (49.2%) učestvovala je u aktivnoj borbi, koja je podrazumevala stresore borbe na prvoj liniji fronta – situacije u kojima je pred očima povređen ili poginuo čovek, upadanje u neprijateljsku zasedu, ubistvo neprijateljskog vojnika u borbi „prsa u prsa“. Skoro četvrtina (23.3%) je povređena – ranjena u toku borbe ili tokom torture u logorima. Nešto manje od trećine (28.4%) je zarobljeno i preživelo stresore vezane za zarobljeništvo – fizičko i seksualno zlostavljanje, prisustvovanje mučenju i zlostavljanju drugih ljudi. Člana porodice – dete, supružnika ili brata izgubilo je 7.1%. Čak 82.1% bilo je izloženo nekoj deprivaciji – nespavanju duže od 24 časa, noći provedenoj na kiši, temperaturi ispod nule. Više od polovine (55.3%) imalo je doživljaj gubitka vojne strukture – izdaju, gubitak veze sa komandom, povlačenje jedinice sa položaja kada to nije bilo opravdano. Prikaz različitih stresora vezanih za ratna i borbena dejstva dat je na Tabeli 1.

Tabela 1. Izloženost stresorima rata i borbe

Stresori*	N	%
Izbeglištvo	208	75.9
Aktivna borba	134	49.0
Povreda	64	23.3
Zarobljeništvo	78	28.4
Deprivacija	224	82.1
Gubitak vojne strukture	159	55.3
Gubitak člana porodice	19	7.1

*Većina ispitanika imala je multiple stresore

Od 274 ispitanika 102 je doživelo traumatski događaj čiji je kvalitet i intenzitet zadovoljio kriterijum A po DSM-IV klasifikaciji za PTSP. Na osnovu kliničke procene psihijatra Odseka za stres, 58 (56.9%) osoba imalo je dijagnozu PTSP i činilo je eksperimentalnu grupu, a njih 44 (43.1%) nije zadovoljilo kriterijum za postavljanje ove dijagnoze i činilo je kontrolnu grupu. Osobe koje nisu imale dijagnozu PTSP najčešće su procenjene kao poremećaj prilagođavanja (14.7%), mešoviti anksiozno–depresivni poremećaj (11.8%) i umereno teška depresivna epizoda (3%). Petina ispitanika bila je zdrava u trenutku ispitivanja.

Analiza profila ličnosti po Milonu ovako odabrane eksperimentalne i kontrolne grupe dala je sledeće rezultate. Osobe bez dijagnoze PTSP-a pokazuju normalni profil ličnosti, uz klinički značajno izražene vrednosti na skalama anksioznosti (A=93.1) i distimije (D=83.4). Profil MCMI-a osoba sa dijagnozom PTSP-a pokazuje izražene izbegavajuće (M2=81.3), zavisne (M3=78.7), pasivno-agresivne (M8=83.9), kao i granične (C=72.2) i paranoidne (P=72.9) dimenzije ličnosti. Na skalama MCMI-a koje mere kliničke sindrome, osobe sa dijagnozom PTSP-a imale su značajnu anksioznost (A=96.6), somatizaciju (H=80.0) i distimiju (D=85.1).

Statistički značajna razlika između ovih dveju grupa prisutna je na izbegavajućim ($p<0.01$), zavisnim ($p<0.05$), paranoidnim ($p<0.05$) i graničnim ($p<0.01$) dimenzijama ličnosti. Statistički značajna razlika prisutna je i na skalama distimije ($p<0.05$), zloupotrebe alkohola ($p<0.01$), psihotičnog mišljenja ($p<0.05$) i depresije ($p<0.05$). Anksioznost, iako izražena u obema grupama, ne pokazuje statistički značajnu razliku. Prosečne vrednosti svih skala MCMI profila ličnosti obeju grupa date su na Tabeli 2.

Tabela 2. Prosečne vrednosti MCMI-a kod osoba sa dijagnozom PTSP-a i bez nje

Poremećaj MCMI	bez PTSP-a	sa PTSP-om	f	p
Shizoidni	70.6	74.8	0.673	0.414
Izbegavajući	67.0	81.3	8.173	0.005 **
Zavisni	67.1	78.7	4.385	0.039 *
Histrionični	52.2	49.9	0.244	0.622
Narcistični	52.4	51.7	0.023	0.878
Antisocijalni	60.2	61.4	0.076	0.784
Kompulsivni	52.5	49.6	0.615	0.435
Pasivno-agresivni	74.8	83.9	3.200	0.077
Shizotipalni	58.4	61.3	1.249	0.267
Granični	64.8	72.2	7.089	0.009
Paranoidni	66.0	72.9	3.839	0.005 **
Anksioznost	93.1	96.6	0.657	0.420
Somatoformni poremećaj	73.1	80.0	3.130	0.081
Hipomanija	45.6	54.4	1.816	0.182
Distimija	83.4	85.1	0.149	0.700
Zloupotreba alkohola	60.1	68.9	8.795	0.004 **
Zloupotreba supstanci	63.3	67.7	1.099	0.298
Psihотиčno mišljenje	64.1	69.1	6.906	0.004 **
Major depresija	58.5	64.4	5.459	0.012 *
Sumanutost	63.9	70.9	4.517	0.037

* p<0.05, ** p<0.01

Profil NEO-PI-R-a pokazao je da su osobe sa dijagnozom PTSP-a neurotičnije (N=157.3) od kontrolne grupe (N=145.0), manje ekstravertne, manje otvorene ka novim iskustvima, dobrodušne i savesne.

Statistički značajna razlika kontrolne i eksperimentalne grupe postoji na dimenzijama neuroticizma (p<0.05) i otvorenosti za nova iskustva (p<0.05), tj. osobe sa PTSP-om značajno su neurotičnije i manje otvorene za nova iskustva. Razlika profila NEO-PI-R-a data je na Tabeli 3.

Tabela 3. Prosečne vrednosti NEO-PI-R-a za osobe sa dijagnozom PTSP-a i bez nje

Dimenzije NEO-PI-R-a	bez PTSP-a	sa PTSP-om	f	p
Neuroticizam	145.0	157.3	8.752	0.004
Ekstraverzija	136.5	134.3	0.333	**
Otvorenost	142.1	135.6	4.955	0.350
Dobrodušnost	163.8	160.6	0.952	0.028 *
Savesnost	159.2	156.7	0.305	0.331
				0.547

* p<0.05, **p<0.01

Na dimenziji neuroticizma NEO-PI-R-a, prosečne vrednosti svih podskala veće su u grupi kojoj je postavljena dijagnoza PTSP. Osobe sa dijagnozom PTSP-a pokazuju veću anksioznost ($N1=28.1$), hostilnost ($N2=26.6$), depresivnost ($N3=26.9$), usredsređenost na sebe ($N4=25.7$), impulsivnost ($N5=25.0$) i vulnerabilnost ($N6=25.0$). Statistički značajna razlika prisutna je i na skalama anksioznosti ($p<0.01$), hostilnosti ($p<0.05$), depresivnosti ($p<0.01$) i usredsređenosti na sebe ($p<0.05$), dok razlika na impulsivnosti i vulnerabilnosti, iako u istom smeru, nije statistički značajna.

Analiza NEO-PI-R dimenzije otvorenosti za nova iskustva pokazuje veće srednje vrednosti na podskalama fantazije ($O1=24.3$), estetike ($O2=28.9$) i emocija ($O3=29.1$). Osobe sa dijagnozom PTSP-a daju veću važnost novim idejama ($O5=28.3$) i vrednostima ($O=29.1$). Prisutne razlike nisu statističke značajne ni na jednoj od šest podskala dimenzije otvorenosti za nova iskustva. Razlike između grupa na dimenzijama neuroticizma i otvorenosti za nova iskustva prikazane su na tabelama 4 i 5.

Tabela 4. Prosečne vrednosti dimenzije neuroticizma

Neuroticizam NEO-PI-R-a	bez PTSP-a	sa PTSP-om	f	p
Anksioznost	25.5	28.1	8.156	0.005 **
Hostilnost	24.6	26.6	4.555	0.030 *
Depresivnost	23.5	26.9	13.481	0.001 **
Usredsređenost	24.0	25.7	3.985	0.049 *
Impulsivnost	24.4	25.0	0.796	0.374
Vulnerabilnost	23.9	25.0	1.113	0.294

* $p<0.05$, ** $p<0.01$

Tabela 5. Prosečne vrednosti dimenzije otvorenosti za nova iskustva

Otvorenost za nova iskustva	bez PTSP-a	sa PTSP-om	f	p
Fantazija	24.3	23.3	1.944	0.159
Estetika	28.9	27.5	1.715	0.194
Emocije	29.1	28.0	1.865	0.175
Aktivnost	24.1	24.1	0.003	0.957
Ideje	28.2	28.3	0.006	0.939
Vrednosti	28.5	29.1	0.669	0.415

DISKUSIJA

Naši rezultati su pokazali da su određene dimenzije ličnosti u vezi sa razvojem PTSP-a, i da bi možda mogle biti faktor vulnerabilnosti u razvoju PTSP-a posle traumatskog iskustva. Izraženost izbegavajućih, zavisnih, pasivno-agresivnih, graničnih i paranoidnih dimenzija ličnosti mogla bi biti uobičajen obrazac kod osoba sa PTSP-om. Slične rezultate pokazale su i neke druge studije (2, 4, 7).

Rezultati NEO-PI-R-a pokazuju da osobe sa dijagnozom PTSP-a pokazuju visok skor na dimenziji neuroticizma. Ove osobe po NEO-PI-R protokolu su anksioznije, hostilnije, depresivnije i više usredsređene na sebe nego osobe koje nisu razvile PTSP. Studije veterana koji su razvili punu sliku PTSP-a, a koje su koristile NEO-PI-R protokol za procenu ličnosti pokazuju slične rezultate – ekstremno visok neuroticizam (naročito depresivnost i hostilnost) i ekstremno nisku dobrodušnost, dok dimenzija ekstraverzije ima prosečne vrednosti (6). Studija traumatizovanih civila (10) pokazala je statistički značajno veći skor na dimenzijama neuroticizma i ekstraverzije, i niži na otvorenosti ka iskustvima, dobrodušnosti i savesnosti kod osoba sa PTSP-om, u odnosu na grupu zdravih ispitanika.

Visok neuroticizam i niska otvorenost ka novim iskustvima mogli bi biti karakterističan NEO-PI-R profil za osobe koje su posle intenzivnog traumatskog iskustva razvile PTSP. Psihopatologija i poremećaj ličnosti u kojem dominiraju anksioznost i depresivnost imaju zajedničku komponentu emocionalne nestabilnosti klasifikovanu pod širi domen – neuroticizam (18). Rezultati našeg istraživanja pokazuju da bi neuroticizam mogao biti faktor rizika za razvoj PTSP-a, ali ne i da je ekstraverzija protektivni faktor u njegovom razvoju.

Neke karakteristike ličnosti, kao što su kompulzivne crte, mogu se razumeti kao protektivni faktor u razvoju PTSP-a. Visok skor opsesivnosti na MCMI profilu može se objasniti jačom kontrolom, koja verovatno mehanizmom poricanja, kratkotrajnog izbegavanja i izolacije afekta omogućava osobi da dobije na vremenu u pokušaju reintegracije traumatskog iskustva (9). Otvorenost ka novim iskustvima, dimenzija NEO-PI-R-a, karakterističnu za osobe koje nisu razvile PTSP, možemo razumeti kao fleksibilnost ovih osoba u ponašanju i emotivnom odgovoru. Ova osobina pomaže u iznalaženju novih i adekvatnih mehanizama prevladavanja u stresogenim situacijama.

S druge strane, rezultati brojnih studija pokazali su da manifestacije poremećaja ličnosti mogu biti zavisne od stanja (state-trait dependance), a ne rezultat trajnog obrasca ponašanja (20, 21, 22, 23, 24). Tako, visoki skor na MCMI skalama koje mere izbegavajuće, zavisne, pasivno-agresivne, paranoidne i granične dimenzije naših pacijenata sa PTSP-om možemo delimično tumačiti u sklopu kliničke slike PTSP-a koju karakterišu simptomi izbegavanja i opšte utrnulosti (16). Ovakvo razmišljanje potkrepljeno je

značajnim povišenjem skora na MCMI skalama kliničkih sindroma – anksioznost, depresivnost i somatizacija. Visok skor na dimenziji paranoidnosti može reflektovati hipersenzitivnost ovih osoba posle traumatskog iskustva, ili nesigurnost i opreznost u susretu sa novim socijalnim okruženjem (9).

Izražena dimenzija graničnosti kod osoba sa dijagnozom PTSP-a mogla bi se razumeti kao manifestacija posttraumatskog stresnog poremećaja, s obzirom da između ova dva poremećaja postoji velika fenomenološka sličnost. Klinička prezentacija podrazumeva, pre svega, poremećaj regulacije afekta, kontrole impulsa, relacije sa drugima i self-regulacije (25). Disocijacija, koja predstavlja uobičajenu komponentu kliničke slike PTSP-a, značajno korelira sa visokim nivoom traumatizacije kod pacijenata sa graničnim poremećajem ličnosti (25, 26) i sa nivoom granične psihopatologije. Disocijativna stanja kod ova dva poremećaja se razlikuju – kod graničnih pacijenata najčešće se sreću depersonalizacija i derealizacija, dok su kod PTSP-a češći fenomeni amnezije, fuge ili *flash-back-ovi*. Razlozi za oprez pri ovakvim tumačenjima su brojni, jer se značajan deo fenomenologije graničnog poremećaja ličnosti ne može dovesti u vezu sa modelom PTSP-a (25).

ZAKLJUČAK

Karakteristike ličnosti verovatno predstavljaju značajnu komponentu toka i ishoda posttraumatske stresne reakcije. Moguće je da određene dimenzije ličnosti povećavaju rizik u nastanku PTSP-a, dok druge predstavljaju protektivni faktor. Naši rezultati su pokazali da su izbegavajuće, zavisne, granične i paranoidne dimenzije u vezi sa razvojem PTSP-a. Otvorenost ka novim iskustvima najverovatnije „štiti“ osobu u razvoju posttraumatske simptomatologije. Dobijeni rezultati uglavnom su u skladu sa rezultatima nekih drugih istraživanja veze između dimenzija ličnosti i PTSP-a.

Dizajn ovog istraživanja nameće i određena ograničenja u pogledu dobijenih rezultata. Procena ličnosti rađena je retrospektivno, tj. pre traumatskog iskustva, pa ostaje nejasno koliki je bio upliv posttraumatske simptomatologije na procenu ličnosti. Postavlja se pitanje da li dobijene karakteristike osoba koje imaju dijagnozu PTSP-a predstavljaju faktore rizika za ekspoziciju traumatskom iskustvu, faktore vulnerabilnosti, direktnu posledicu traumatskog iskustva, tj. života sa hroničnim PTSP-om, ili su kombinacija ovih faktora. Za razlikovanje trajnog obrasca ponašanja od kratkotrajne fenomenološke prezentacije neophodna je longitudinalna, odnosno, prospektivna studija.

Sagledavanje problema posttraumatske simptomatologije ne samo u kontekstu prepoznavanja različitih psiholoških poremećaja nakon traumatskog iskustva, već i u kontekstu ličnosti, pomoglo bi u definisanju programa za prevenciju i lečenje osoba koje su razvile određene poremećaje uzrokovane stresom. Informacija o tome ko ima veću verovatnoću da razvije PTSP posle traume može biti važna za smanjivanje redukcije dugotrajnih

negativnih posledica ekstremnog stresa. Određivanje podtipova PTSP-a na osnovu procene ličnosti može omogućiti i adekvatniji pristup traumatizovanim osobama. U tom smislu, dvojna dijagnostika, klinički sindrom plus dimenzije ličnosti/poremećaja ličnosti, je *sine qua non* svake psihijatrijske procene osoba koje su bile izložene traumatskom stresu.

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THE RELATIONSHIP BETWEEN PERSONALITY DIMENSIONS AND POSTTRAUMATIC STRESS DISORDER

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Abstract: Posttraumatic stress disorder (PTSD) is one of few disorders in DSM-IV classification defined by its cause i.e. characteristics of trauma. Most integrative concepts of the causes of PTSD development also take into consideration the impact of pre-trauma and posttrauma factors. The aim of this study was to establish the impact of personality dimensions on the development of posttraumatic symptomatology. Two hundred and seventy four patients who have experienced multiple severe war related traumas as civilians or soldiers were assessed with questionnaires for personality (NEO-PI-R, MCMI), PTSD symptoms and the occurrence and distress of war related traumatic events. A significant difference between PTSD and non-PTSD group was identified on NEO-PI-R personality scales defined as neuroticism as well as on the following MCMI dimensions: avoidant, dependant, borderline and paranoid. The results of our study suggest that some personality dimensions could be risk or protective factors in the PTSD development. The limitations of personality assessment in persons with PTSD are also discussed.

Key words: PTSD, personality, personality disorders, trauma

INTRODUCTION

Posttraumatic stress disorder (PTSD) is one of few disorders in DSM-IV classification defined by its cause, i.e. trauma. However, trauma itself is insufficient since many people do not develop this disorder after traumatic experience. Most concepts of the causes of PTSD development take into consideration the factors of *pre-trauma* – personal vulnerability, *trauma* – characteristics of traumatic stressor and *post-trauma* – material, emotional and social support.

There are several hypotheses on the relationship between personality and PTSD (1). The first possibility is that personality organisation and PTSD are relatively independent, i.e. that people with and without personality pathology have an equal chance of developing PTSD. The implication of this concept is that the nature and intensity of traumatic experience are the key factors in determining the development and severity of PTSD.

The second possibility is that personality predisposes individuals to develop PTSD and maintain symptoms over time (2, 3). In a study of war veterans with posttraumatic stress disorder, the most frequently diagnosed personality disorders were borderline, obsessive-compulsive, avoidant and paranoid disorders (4). In the sample of persons with war-related traumas, passive-aggressive and avoidant personality traits with a high borderline level were found to be the most prominent in the MCMI personality profile (5, 6, 7). Another study has indicated that comorbidity with antisocial personality disorder is high and amounts to 26% 64% (8). Our study conducted on 94 refugees provided different results – normal personality profile with prominent avoidant, obsessive and paranoid personality traits (9). A study conducted on 174 students of School of Medicine, University of Belgrade, one year after NATO attacks suggested that personality had main i.e direct impact on PTSD intrusion symptoms (10). A study of traumatised civilians (11) indicated a statistically significant higher score on NEO-PI-R dimensions of neuroticism and extroversion and a lower score on openness to new experiences, agreeableness and conscientiousness in subjects with PTSD compared to the group of healthy subjects. Jenny (12) believes that specific personality profile may function as „selector“ of those who will find themselves in potentially high risk situations. This would refer to persons who voluntarily participated in life threatening combat activities.

The third possibility is that character pathology may develop after traumatic experience, in particular following prolonged and repeated trauma such as torture. Personality traits, for example, take the central place in the definition of the „complex posttraumatic syndrome“ (13) or in „disorders of extreme stress not other specified“ – DESNOS (14). There is a separate diagnostic category „enduring personality change after catastrophic experience“ in the ICD-10 classification (15) defining personality changes caused

by extreme stress. The existing, prominent personality dimensions may intensify reaching the level of personality disorders, or personality disorder may develop *de novo*, following prolonged and repeated traumatic stress.

The aim of this study was to establish relationship between PTSD and personality dimensions, and to explore which personality dimensions are the most frequent in subjects with PTSD diagnosis.

METHOD

Subjects

The sample included 274 subjects, refugees and war veterans, who exiled to Serbia and Montenegro from Bosnia and Croatia. They were assessed at the Stress Clinic, the Institute of Mental Health in Belgrade. There were 163 (59.5%) males and 111 (40.5%) females. Mean age was 39.4 (11.12 SD), ranging from 18 to 65 years. The 63% of the subjects were treated as outpatients, 10% as inpatients and 27% of them did not seek help due to psychological complaints (they were referred to the Clinic by the UNHCR for the psychiatric assessment because of their resettlement to another country). Informed consent was provided and information obtained kept confidential.

Procedure

Research was carried out step by step. First, a psychiatrist from the Stress Clinic administered semi-structured clinical interview and made clinical diagnosis based on DSM-IV criteria (16). After the interview, all subjects were assessed by the following instruments:

Millon Clinical Multiaxial Inventory (MCMI) (17) and NEO Personality Inventory (NEO-PI-R) (18) assessing personality/personality disorders. MCMI is a questionnaire with 175 statements and a right-wrong choice. Test allows scoring and interpretation of eight basic personality patterns – schizoid, avoidant, dependant, histrionic, narcissistic, antisocial, compulsive and passive-aggressive, and three pathological personality disorders – schizotypal, borderline and paranoid, as well as nine clinical syndromes. A score of 75 to 85 indicates the presence of disorders (or pronounced personality traits) and above 85 indicates a prominent presence of clinically significant personality disorder.

NEO-PI-R is a questionnaire composed of 240 statements and a wider range of responses: I strongly disagree, I don't agree, I am not sure, I agree and I agree completely. The questionnaire is based upon five-factorial concept of personality and personality disorders. It diagnoses five basic personality traits: neuroticism, extroversion, openness to new experiences, agreeableness and conscientiousness. Within each of these five main scales

there are six sub-scales. While interpreting results, the constellation of the increase and decrease of five main scales is taken into consideration.

War Stressors Assessment Questionnaire (19) comprises the list of 79 war-related traumatic stressors. It measures incidence of exposure to each individual stressor (four-level scale) and the level of psychological distress (seven-level scale) resulting from these traumatic events. Potentially traumatic war related experiences were divided into six categories: stressors involved in active participation in combat, stressors behind the front-line, injuries, stresses related to detainment, deprivation and the loss of military organisation/structure.

All subjects experienced multiple stressors including exile, active combat, detention or injuries. Although these stressors exceeded usual human experience and had a great traumatic potential, we made a correction of traumatic experience introducing a sub-sample of subjects who have experienced war-related trauma and met DSM-IV criterion A for PTSD. DSM-IV criterion A implies that: a) person experienced, witnessed or was confronted with an event involving actual or potential death or threat to his own or other person's physical integrity; b) person's reaction involved intense fear, helplessness or dread. By matching the subjects in relation to the quality and intensity of traumatic event, the sample was divided into experimental and control group. Experimental group consisted of subjects with PTSD diagnosis. Control group comprised subjects who, after clinical assessment, did not meet criteria for PTSD.

Data analysis included descriptive analysis i.e. mean and standard deviation for quantitative variables (age) and percentage by categories for categorical variables (gender, received psychiatric assistance, level of exposure to stressors related to war and combat). In order to assess the relationship between posttraumatic stress symptomatology and personality dimensions we applied multivariate and one-way analysis of variance.

Results

Most subjects experienced multiple stressors. Almost a half of our subjects (49.2%) participated in active combat involving combat stressor on the front line – situations where they witnessed wounding or killing of other persons, falling into an enemy's ambush, killing of enemy soldier in a close range combat. Almost a quarter of subjects (23.3%) were injured – wounded during combat or injured after torture in detention camps. Less than a third (28.4%) was imprisoned and survived stressors related to detention – physical abuse, sexual abuse, witnessing torture and abuse of other people, handling of mutilated bodies. 7.1% lost a family member – child, spouse or brother/sister. As many as 82.1% of subjects were exposed to some form of deprivation – sleep deprivation lasting longer than 24 hours, night spent in

the rain and exposure to low temperatures. More than a half (55.3%) experienced a loss of military structure – treason, losing contact with the command, and unjustified unit retreat from its post. Table 1 presents a range of war and combat related stressors.

Table 1. Exposure to stressors related to war and combat

Stressors*	N	%
Exile	208	75.9
Combat	134	49.0
Injury	64	23.3
Detainment	78	28.4
Deprivation	224	82.1
Loss of military structure	159	55.3
Loss of family member	19	7.1

* Most subjects have experienced multiple stressors

Of 274 subjects, 102 experienced traumatic event whose quality and intensity meet criterion A in DSM-IV classification for PTSD. Based upon clinical assessment, 58 (56.9%) persons were diagnosed with PTSD and were placed in the experimental group. Forty-four subjects (43.1%) did not meet criteria for this diagnosis, and were placed in the control group. The subjects without PTSD diagnosis were most often assessed as having adjustment disorder (14.7%), mixed anxious-depressive disorder (11.8%) and moderately severe depressive episode (3%). From psychiatric perspective, one fifth of subjects were healthy at the time of exploration.

Analysis of the MCMI personality profile of identified experimental and control group gave interesting results. Subjects without PTSD diagnosis had normal personality profile, with clinically significant values on anxiety (A=93.1) and dysthymia (D=83.4) scales. The MCMI profile of subjects with PTSD indicated the presence of marked avoidant (M2=81.3), dependant (M3=78.7), passive-aggressive (M8=83.9), as well as borderline (C=72.2) and paranoid (P=72.9) personality dimensions. The MCMI scales measuring clinical syndromes, showed that subjects with PTSD had significant anxiety (A=96.6), somatization (H=80.0) and dysthymia (D=85.1).

A statistically significant difference between groups was identified on the scales of avoidant ($p<0.01$), dependant ($p<0.05$), paranoid ($p<0.05$) and borderline ($p<0.01$) personality dimensions. Statistically significant difference between these two groups was also identified on the scales of dysthymia ($p<0.05$), alcohol abuse ($p<0.01$), psychotic thoughts ($p<0.05$) and major depression ($p<0.05$). Anxiety, although significantly marked in both groups did not suggest statistically important difference ($p=0.51$). Mean values and difference between groups on all scales of the MCMI personality profile are presented in Table 2.

Table 2. Mean values and differences between groups on MCMI scales

MCMI scales	non PTSD	PTSD	f	p
Schizoid	70.6	74.8	0.673	0.414
Avoidance	67.0	81.3	8.173	0.005 **
Dependant	67.1	78.7	4.385	0.039 *
Histrionic	52.2	49.9	0.244	0.622
Narcissistic	52.4	51.7	0.023	0.878
Antisocial	60.2	61.4	0.076	0.784
Compulsive	52.5	49.6	0.615	0.435
Passive-aggressive	74.8	83.9	3.200	0.077
Schizotypal	58.4	61.3	1.249	0.267
Borderline	64.8	72.2	7.089	0.009
Paranoid	66.0	72.9	3.839	0.005 **
Anxiety	93.1	96.6	0.657	0.420
Somatoform disorder	73.1	80.0	3.130	0.081
Hippomania	45.6	54.4	1.816	0.182
Disthymia	83.4	85.1	0.149	0.700
Alcohol dependence	60.1	68.9	8.795	0.004 **
Drug dependence	63.3	67.7	1.099	0.298
Thought disorder	64.1	69.1	6.906	0.004 **
Major depression	58.5	64.4	5.459	0.012 *
Delusional disorder	63.9	70.9	4.517	0.037

* $p < 0.05$, ** $p < 0.01$

The NEO-PI-R profile indicated that the subjects with PTSD diagnosis were more neurotic ($N=157.3$) than control group subjects ($N=145.0$), less extrovert, open to new experiences, agreeableness and conscientious.

A significant difference between experimental and control group was found on the NEO-PI-R scales defined as neuroticism ($p < 0.05$) and openness to new experiences ($p < 0.05$), i.e., subjects with PTSD were more neurotic and less open to new experiences. Mean values and differences between groups on all scales of the NEO-PI-R personality profile are presented in Table 3.

Table 3. Mean values and difference between groups on NEO-PI-R scales

NEO-PI-R scales	non PTSD	PTSD	f	p
Neuroticism	145.0	157.3	8.752	0.004
Extraversion	136.5	134.3	0.333	0.350
Openness	142.1	135.6	4.955	0.028
Agreeableness	163.8	160.6	0.952	0.331
Conscientiousness	159.2	156.7	0.305	0.547

* $p < 0.05$, ** $p < 0.01$

The NEO-PI-R dimension of neuroticism indicated that mean values on all the sub-scales are bigger in the group with PTSD. The subjects with PTSD diagnosis manifested increased anxiety ($N1=28.1$), hostility ($N2=26.6$), depressive symptoms ($N3=26.9$), self-centredness ($N4=25.7$), impulsiveness ($N5=25.0$) and vulnerability ($N6=25.0$). A statistically significant difference between these groups was established on the scales of anxiety ($p < 0.01$), hostility ($p < 0.05$), depressive symptoms ($p < 0.01$) and self-centredness ($p < 0.05$), while the difference on impulsiveness and vulnerability, although one-directional, was not statistically significant. Analysis of the NEO-PI-R dimension of openness indicated increased mean values on the sub-scales of fantasy ($O1=24.3$), aesthetics ($O2=28.9$), emotion ($O3=29.1$). The value on the action scale ($O4=24.1$) was completely identical for control and experimental group. The subjects with PTSD ascribe more importance to new ideas ($O5=28.3$) and values ($O=29.1$). The existing differences were not statistically significant on any of the six sub-scales of the NEO-PI-R dimension of openness. The difference between the groups on the NEO-PI-R profile of neuroticism and openness to new experience is presented in tables 4 and 5.

Table 4. Difference between groups on the NEO-PI-R neuroticism dimension

Subscales of neuroticism	non PTSD	PTSD	f	p
Anxiety	25.5	28.1	8.156	0.005 **
Hostility	24.6	26.6	4.555	0.030 *
Depression	23.5	26.9	13.481	0.001 **
Self-consciousness	24.0	25.7	3.985	0.049 *
Impulsiveness	24.4	25.0	0.796	0.374
Vulnerability	23.9	25.0	1.113	0.294

* $p < 0.05$, ** $p < 0.01$

Table 5. Difference between the groups on the NEO-PI-R openness to new experiences dimension

Subscales of openness to new experiences	non PTSD	PTSD	f	p
Fantasy	24.3	23.3	1.944	0.159
Aesthetics	28.9	27.5	1.715	0.194
Feelings	29.1	28.0	1.865	0.175
Actions	24.1	24.1	0.003	0.957
Ideas	28.2	28.3	0.006	0.939
Values	28.5	29.1	0.669	0.415

DISCUSSION

Our findings suggest that there is a relationship between personality dimensions and PTSD as well as that personality may represent a vulnerability factor in the development of PTSD following traumatic experience. Avoidant, dependant, passive-aggressive, borderline and paranoid dimensions that were prominent could be a habitual pattern of PTSD. Similar findings have been obtained by some other authors (2, 4, 7).

The subjects with PTSD diagnosis had a high score on dimension of neuroticism, as measured by the NEO-PI-R. According to the NEO-PI-R protocol, these subjects are more anxious, hostile, depressed and self-centred in comparison with persons who did not develop PTSD. This finding is also similar to other reports. Studies on war veterans, who developed full PTSD picture, using the NEO-PI-R protocol for personality assessment, gave similar results – extremely high neuroticism (especially depressive symptoms and hostility) and extremely low agreeableness, with average extroversion values (6). The study on traumatised civilians (10) indicated statistically significant higher score on dimensions of neuroticism and extroversion and lower score on openness to new experiences, agreeableness and conscientiousness in subjects with PTSD in comparison to the group of healthy subjects.

High neuroticism and low openness to new experiences could be a characteristic NEO-PI-R profile of persons who developed PTSD after intensive traumatic experience. Psychopathology and personality disorders confirmed by anxiety and depressive symptoms have a joint component of emotional instability classified under a wider domain – neuroticism (18). The results of our study indicate that neuroticism could be a risk factor, but do not indicate that extroversion is a protective factor in the development of PTSD.

Some personality characteristics, such as compulsive traits, may protect a person from developing PTSD. Obtained high compulsive tendencies on the MCMI profile could be explained by an increased control that, probably through mechanisms of denial, short-term avoidance and isolation of affect enable the person to gain time while trying to reintegrate

the traumatic experience (9). Openness to new experiences, i.e., the NEO-PI-R dimension characteristic of subjects who did not develop PTSD, can be understood as their flexibility in behaviour and emotional response. This quality might help them find new and more adequate mechanisms of coping with stressful situations.

However, findings of numerous studies have indicated that manifestations of personality disorders can be state dependent (state-trait dependence), and not a result of a long-lasting behavioural pattern (20, 21, 22, 23, 24). In this sense, high score on the MCMI scales measuring avoidant, dependant, passive-aggressive, paranoid and borderline personality dimensions in our patients with PTSD, can be partially interpreted in the framework of clinical picture of PTSD, characterised by the symptoms of avoidance and general numbness (16). This is supported by significantly increased score of the MCMI scales of clinical syndromes (anxiety, somatisation and depressive symptoms). A high score on paranoid dimension can also reflect hypersensitivity of these persons following traumatic event, or insecurity and cautiousness in a new social context (9).

Significant borderline dimension in subjects with PTSD diagnosis can be understood as manifestation of PTSD, having in mind a phenomenological resemblance between borderline personality disorder and PTSD. Clinical presentation of the borderline personality disorder implies impairment of affect regulation, impulse control, reality testing, relations with others and self-regulation (25). Dissociation, being the usual component of PTSD clinical picture, significantly correlates with a high level of traumatization in patients with borderline personality disorder (26, 27) and a level of borderline psychopathology. Dissociative states are different in these two disorders – depersonalisation and derealisation are most common in borderline patients, while PTSD is characterised by amnesia, fugues and attention disorders. The reasons for caution in these interpretations are numerous, since a significant part of the phenomenology of borderline personality disorder does not correlate with PTSD model (25).

CONCLUSION

Personality traits probably represent important component of the course and outcome of posttraumatic stress. It is possible that some personality dimensions increase the risk for developing PTSD, while others may represent protective factor. Our results indicate that avoidant, dependant, passive-aggressive, borderline and paranoid personality dimensions might represent vulnerability factor in the development of PTSD. Openness to new experiences most likely „protects“ a person from the development of posttraumatic symptomatology. The obtained results are generally consistent with findings of some other studies of the relationship between personality dimensions and PTSD.

Our research design involves specific limitations with respect to obtained results. Assessment of personality is conducted retrospectively, i.e., after traumatic experience, so that the impact of posttraumatic symptomatology on the personality assessment remains unclear. The question remains whether the obtained personality characteristics of persons with PTSD diagnosis indicate risk factors for exposure to traumatic experience, a vulnerability factors, and a direct consequence of traumatic experience, i.e. life with chronic PTSD, or a combination of these factors. Differentiation between durable behavioural pattern and short-term phenomenological presentation requires longitudinal, i.e., prospective study.

The problem of posttraumatic stress should be perceived not only in the context of identification of the various psychological disorders following traumatic experience, but also in personality context. It would be helpful in defining prevention and treatment programs. Identification of people predisposed to develop PTSD after trauma may be important for the reduction of longterm negative consequences of extreme stress. Identification of PTSD subtypes based upon personality assessment may facilitate more adequate therapeutic approach to traumatised persons. In this sense, a double diagnosis, of a clinical syndrome plus personality dimensions/personality disorders, is *sine qua non* of any psychiatric assessment of people who have been exposed to traumatic stress.

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References

1. Green BL, Lindy JD, Grace MC. Posttraumatic stress disorder: Toward DSM IV. *Journal of Nervous and Mental Disease* 1985; 173: 406-411.
2. Hyer L, Woods MG, Boudewyns PA, Bruno R, O'Leary, WC. Concurrent validation of the MCMI-inventory among Vietnam veterans with post-traumatic stress disorder. *Psychological Reports* 1988; 63: 271-278.
3. Talbert FS, Braswell LC, Albrecht JW. NEO-PI profiles in PTSD as a function of trauma level. *J Clinical Psychology* 1993; 49: 663-669.
4. Southwick SM, Yehuda R, Giller EL. Personality disorders in treatment seeking combat veterans with posttraumatic stress disorder. *Am Journal of Psychiatry* 1993; 150:1020-1023.
5. Millon T, Everly GS. Dependant personality disorders. In: Millon, T. (ed.): *Personality and Its Disorders: A Biosocial Learning Approach*. Wiley and Sons, New York, 1985; 108-126.
6. Hyer L, Braswell L, Albrecht B. Relationship of NEO-PI to personality styles of trauma in chronic PTSD victims. *J Clinical Psychology* 1994; 699-707.
7. Wolfe J, Keane TM. New perspectives in the assessment and diagnosis of combat-related post-traumatic stress disorder. In: Wilson JP, Beverly R. (eds). *International Handbook of Traumatic Stress Syndromes*. New York: Plenum Press; 1993; p. 165-177.
8. Keane TM, Wolfe J. Comorbidity in post-traumatic stress disorder: An analysis of community and clinical studies. *Journal of Applied Social Psychology* 1990; 20: 1776-1788.
9. Lecic-Tosevski D, Draganic S, Jovic V, Ilic Z, Drakulic B, Bokonjic S. Posttraumatic stress disorder in refugees and its relationship with personality dimensions. In: Christodoulou GN, Lecic-Tosevski D, Kontaxakis, VP (eds). *Issues in Preventive Psychiatry*. Basel: Karger; 1999; p. 95-102.
10. Lecic-Tosevski D, Gavrilovic J, Knezevic G, Priebe S. Personality factors and posttraumatic stress: Associations in civilians one year after air attacks. *Journal of Personality Disorders* 2003; 17 (6), 537-549.
11. Fauerbach JA, Lawrence JW, Schmidt CW. Personality predictors of injury-related posttraumatic stress disorder. *Journal of Nervous and Mental Disease* 2000; 6: 510-517.
12. Jenny C. Adolescent risk-taking behavior and the occurrence of sexual assault. *American Journal of Disease of Children* 1988; 38: 386-389.
13. Herman JL, Perry JC, van der Kolk BA. Childhood trauma in borderline personality disorder. *Am Journal of Psychiatry* 1989; 146: 490-495.
14. Van der Kolk BA. The complexity of adaptation to trauma: Self-regulation, stimulus, discrimination and characterological develop-

- ment. In: Van der Kolk, BA, Mc Farlane A, Weisaeth L (eds). *Traumatic Stress*. New York: The Guilford Press; 1996; p. 182-212.
15. World Health Organization: *The ICD-10 Classification of Mental and Health and Behavioral Disorders: Clinical Descriptions and Diagnostic Guidelines*. World Health Organization, Geneva; 1992.
 16. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*, Fourth edition. Washington, DC: APA; 1994.
 17. Millon T. *Millon Clinical Multiaxial Inventory Manual*, 3rd ed. Minneapolis, MN: National Computer Systems; 1983.
 18. Mc Crea RR, Costa PT. Toward the new generation of personality theories: Theoretical contexts of the five-factor model. In Wiggins, JS (eds): *The five factor model of personality: Theoretical Perspectives*, New York Press, 1996; 51-87.
 19. Jović V, Opačić G, Knežević G, Tenjović L, Lečić-Toševski D. War stressors assessment questionnaire – psychometric evaluation. [Upitnik za procenu ratnih stresora - psihometrijska evaluacija]. *Psychiatry Today* 2002; 34 (1-2): 27-50.
 20. Boyce P, Hadzi-Pavlovic D, Parker G. Depressive type and state effects on personality measures. *Acta Psychiatr Scand* 1989; 81: 197-200.
 21. Divac-Jovanovic M, Svrakic D, Lecic-Tosevski D. Personality disorders: Model for conceptual approach and classification. I. General model. *Am Journal Psychotherapy*, 1993; 47(4):558-71.
 22. Hirschfeld RMA, Klerman GL, Clayton PY. Assessing personality: Effects of depressive state of trait measurements. *Am J Psychiatry* 1983; 140: 695-699.
 23. Joffe TR, Regan JJ. Personality and depression. *J Psychiatr Res* 1988; 22(4), 279-86.
 24. Lecic-Tosevski D, Divac-Jovanovic M. Effects of dysthymia on personality assessment. *Eur Psychiatry* 1996; 11: 244-248.
 25. Gunderson JG, Sabo AN. The phenomenological and conceptual interface between borderline personality disorder and PTSD. *Am Journal of Psychiatry* 1993; 150(1), 19-27.
 26. Herman JL. Sequelae of prolonged and repeated trauma: evidence for a complex post-traumatic syndrome (DESNOS). In: Davidson JRT and Foa EB (Eds). *Post-traumatic Stress Disorder: DSM-IV and Beyond*. Washington DC: APA; 1993; p. 213-228.
 27. Ogata SN, Silk KR, Goodrich S, Lohr N. Childhood sexual and physical abuse in adult patients with borderline personality disorder. *Am Journal of Psychiatry* 1990; 147: 1008-1013.