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AMDA RS – Bosna i Hercegovina

(Član AMDA International-Asocijacije doktora medicine Azije-Japan)

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RIJEČ UREDNIKA

Časopis «Psymedica» je nastao u potrebi za širenjem naučne misli na prostorima gdje još ne egzistira ni jedan takav, ni sličan časopis, sa prvenstveno naučnim performansama. Časopis objavljuje orginalne radove, istraživačke radove, prikaze naučnih knjiga koji nisu ranije objavljivani, u oblasti psihijatrije, psihologije i srodnih disciplina, što obuhvata i sferu psihijatrijske medicine.

Novi naučni časopis, na prostoru Republike Srpske, bavi se istraživanjima koja su u fokusu psihijatara i psihologa, te pored ostalog, obuhvata i poslijeratna istraživanja koja istražuju Posttraumatski stresni poremećaj (PTSP) koji predstavlja ozbiljno oboljenje sa manjim ili većim stepenom slaganja psihijatara, te kasne posljedice Posttraumatskog stresnog poremećaja u formi entiteta kao što su Trajne promjene ličnosti nakon katastrofičnog iskustva F 62.0 (prema ICD-10). Potom su tu radovi koji prate nivo izmijenjene ličnosti u dužem vremenskom periodu, kao i radovi u domenu telepsihijatrije, tj novih metoda u psihijatriji koji se pojavljuju na našim prostorima, kao i aspekti mobinga, internet zavisnosti, te ostalih novih oblika zavisnosti.

Časopis izlazi dva puta godišnje, na srpskom jeziku uz sažetak na engleskom jeziku ili kompletne radove na engleskom jeziku.

U sadržaju ovog novog časopisa prvenstveno su predviđeni naučni radovi koji poštuju koncepte savremenih epidemioloških istraživanja u oblasti psihijatrije i psihologije.

Jedan od osnovnih ciljeva je da se omogući autorima, koji rade istraživanja i naučne radove, da mogu iste da objavljuju u vrijeme dok su isti aktuelni, jer je nepojmljivo da se sa naučnim radovima čeka godinama da bi se isti objavili.

Cilj je takođe da se prate najsavremeniji aspekti naučne misli u domenu mentalnog zdravlja u odnosu na klasični medicinski i zdravstveni aspekt psihijatrijskog pacijenta.

Rezultati naučnih radova i provedenih analiza u njima poslužiće kao osnov za izradu programa daljnjih aktivnosti na planu izrade novih naučnih radova i istraživanja, te sticanja uvida u brojne psihijatrijske i psihološke probleme, te probleme vezane za psihijatrijsku medicinu.

Prezentirana istraživanja će imati značaj u naučnoj misli na cijelom prostoru u Republici Srpskoj, BiH i šire.

Želja uredništva je da Psymedica predstavlja orginalni doprinos savremenoj psihijatriji i to ne samo za naučne procese nego i u domenu sveobuhvatnog pristupa psihijatrijskom pacijentu, te da na postupan i razumljiv način, uz korištenje naučnih saznanja i kombinovanjem teorijskih saznanja ima uticaj na širenje praktičnog holističkog naučnog iskustva na savremene trendove u domenu psihijatrijske dijagnostike i terapije, te sfere psiholoških unapređenja mentalnog zdravlja.

Glavni i odgovorni urednik
Prof.dr Milan B. Stojaković

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A SOCIAL NETWORK SERVICE LINKEDIN AND INTERNET ADDICTION

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Original scientific article

Abstract:

BACKGROUND: The aim of the study was to evaluate the relationship between LinkedIn users and Internet addiction (IA) by Telepsychiatric service. LinkedIn is a social utility that connects people with friends and others who work, study and live around them by internet.

METHODS: A total of 100 LinkedIn clients were studied with Free online telepsychiatric services. Internet Addiction Test (IAT) was used, by Telepsychiatric service, to assess state measures of symptom severity. IAT, developed by Dr. Kimberly Young, is a 20-item questionnaire that measures mild, moderate, and severe levels of Internet Addiction. First, we investigated LinkedIn users by internet. Second, we evaluated for their severity of Internet addiction. Third, we investigated correlations between LinkedIn and Internet addiction use by IAT.

RESULTS: Score: 10 % clients without Internet Addiction;20-49 points (mild IA) had been founded 25 % clients;50-79 points (moderate IA) had been found at 29 % clients (frequent problems with the Internet);80-100 points (severe IA) had been found at 36 % clients (significant problems with the Internet). Moderate and severe level off IA had been found at 65 % clients (LinkedIn users).

CONCLUSIONS: This study reveals a extremely significant association between Internet addiction and LinkedIn users ($P < 0.0001$). The data suggest the necessity of the continued examination off LinkedIn users, evaluation and follow-up evolution of IA by Telepsychiatric service.

Key words: Telepsychiatric service,internet,addiction, LinkedIn.

Introduction

Addictive use of the Internet is a new phenomenon which many practitioners are unaware of and subsequently unprepared to treat. Some therapists are unfamiliar with the Internet, making its seduction difficult to understand (1).

Internet addiction disorder (**IAD**), or, more broadly, *Internet overuse*, *problematic computer use* or *pathological computer use*, is excessive computer use that interferes with daily life (2,3).

A **social network service** focuses on building and reflecting of social networks or social relations among people, e.g., who share interests and/or activities. A social network service essentially consists of a representation of each user (often a profile), his/her social links, and a variety of additional services (4).

Internet Addiction Test (IAT) developed by Dr. Kimberly Young, is a 20-item questionnaire that measures mild, moderate, and severe levels of Internet Addiction. IAT was used, by Telepsychiatric service. To assess your level of addiction, answer the following questions using this scale:1=Rarely. 2=Occasionally. 3=Frequently. 4=Often. 5=Always. Questions include items: How often do you find that you stay on-line longer than you intended? How often do you check your e-mail before something else that you need to do? How often do you feel depressed, moody, or nervous when you are off-line, which goes away once you are back on-line? etc. (1,2,5).

LinkedIn is a business-oriented social networking site. Founded in December 2002, it is mainly used for professional networking. As of 11 February 2010, LinkedIn had more than 60 million registered users, spanning more than 200 countries and territories worldwide (6).

The term "**telepsychiatry**" refers to the use of telecommunication technologies with the aim of providing psychiatric services from a distance. Telepsychiatry and e-mental health services primarily involve videoconferencing over high speed (broadband) networks to enable natural interactions between patients and providers. Telepsychiatry connects patients and mental health professionals, permitting effective diagnosis, treatment, education, transfer of medical data and other activities related to mental health care. Traditionally, this has required leasing specialized high speed telephone circuits that were dedicated for videoconferencing (7).

Telepsychiatry is the application of Telemedicine to the field of Psychiatry. It has been the most successful of all the telemedicine applications so far, because of its need for only a good videoconferencing facility between the patient and the psychiatrist, especially for follow-up. There are sub-specialties like *forensic telepsychiatry*, in which the patient is typically an inmate accessing the psychiatrist who is from a supporting institution, and *home-based telepsychiatry*, whereby the patient is in his own home or office, accessing the physician via webcam and high-speed internet. Another common application is for patients in rural or underserved areas. A recent innovation is the development of the subspecialty of emergency psychiatry via telemedicine. Research is currently on-going to develop the unique guidelines required to provide consultation for emergency psychiatric patients such as the evaluation of the suicidal, homidical, violent, psychotic, depressed, manic, and acutely anxious patient. Emergency telepsychiatry services are being provided to hospital emergency departments, jails, community mental health centers, substance abuse treatment facilities, and schools (8).

AIM

The aim of the study was to evaluate the relationship between LinkedIn users and Internet addiction(IA) by Telepsychiatric service.

METHODS

A total of 100 random LinkedIn clients were studied with Free online telepsychiatric services and 100 total of no LinkedIn clients(control group). Internet Addiction Test (IAT) was used, by Telepsychiatric service, to assess state measures of symptom severity. Research instrument was IAT, developed by Dr. Kimberly Young, with 20-item questionnaire for measures different levels of Internet Addiction (1,2).
For statistical procesing we used programs and methods by SPSS-10 and PASW-18 statiscis for computer.
First, we investigated LinkedIn users by internet and no LinkedIn clients.
Second, we evaluated for their severity of Internet addiction.
Third, we investigated statistical correlations between both groups, especially LinkedIn and Internet addiction use by IAT.

RESULTS

Based on the goal front, we get the following results (Table I) for LinkedIn users: Score: 10 % clients without Internet Addiction;
20-49 points (mild IA) had been founded 25 % clients;
50-79 points (moderate IA) had been found at 29 % clients (frequent problems with the Internet);
80-100 points(severe IA) had been found at 36 % clients (significant problems with the Internet).
Also, we get the following results for no LinkedIn users:
Score: 65 % clients without Internet Addiction;
20-49 points (mild IA) had been founded 13 % clients;

50-79 points (moderate IA) had been found at 25 % clients (frequent problems with the Internet);
80-100 points (severe IA) had been found at 3 % clients (significant problems with the Internet). Table I and Table II shows statistical results by SPSS-10 and PASW-18 statiscis programs.

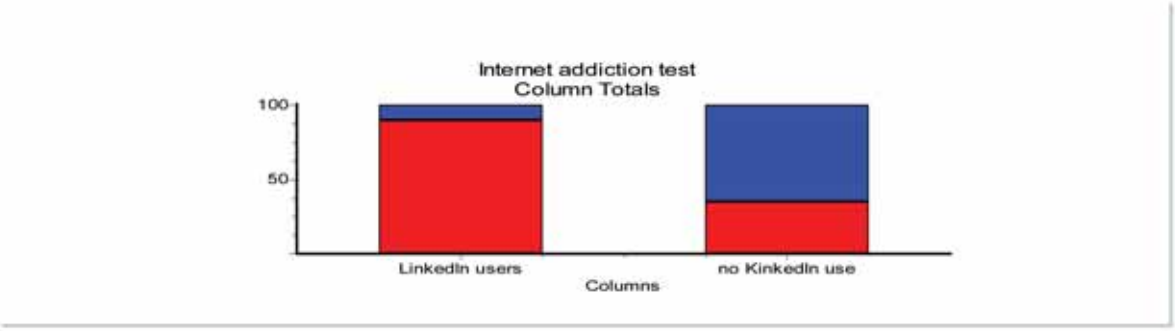
Table I

Internet Addiction Test (IAT)	LinkedIn users		No LinkedIn users	
	N	%	N	%
clients without Internet Addiction	10	10 %	65	65%
20-49 points (mild IA)	25	25 %	13	13%
50-79 points (moderate IA)	29	29 %	19	19%
80-100 points(severe IA)	36	36 %	3	3%
TOTAL	100	100 %	100	100 %

Table II

Fisher's Exact Test	LinkedIn users		No LinkedIn users		total	
Internet Addiction Test(IAT)	Statistic	%	Statistic	%	**N**	**%**
without IA	10	5	65	32	**75**	**37**
With IA	**90**	**45**	35	18	**125**	**63**
total	100		100		**200**	**100**
%	(50%)		(50%)		**(100%)**	
Relative risk = 0.1852 95% Confidence Interval:					**0.1029 to 0.3332**	
95% Confidence Interval of that fraction: 0.06577 to 0.2312 95% Confidence Interval of that fraction: 0.6330 to 0.7963						
Difference between the two proportions Top row (without IA): Fraction in the left column:					**0.1333**	
Difference between the two proportions Bottom row (IA): Fraction in the left column:					**0.7200**	
Difference between the fractions: Standard error of the difference: 0.07303 95% confidence interval of difference: 0.4435 to 0.7298					**0.5867**	
The two-sided P value is < 0.0001, considered extremely significant.						

Graph 1.



DISCUSSION

Based on the goal front in Table I, we get the following results for LinkedIn users:
Score:
10 % clients without Internet Addiction;
20-49 points (mild IA) had been founded 25 % clients;
50-79 points (moderate IA) had been found at 29 % clients (frequent problems with the Internet);
80-100 points(severe IA) had been found at 36 % clients (significant problems with the Internet).
Based on the results front total moderate and severe level off IA had been found at 65 % clients (LinkedIn users).
Also, we get the following results for no LinkedIn users: Score: 65 % clients without Internet Addiction; 20-49 points (mild IA) had been founded 13 % clients; 50-79 points (moderate IA) had been found at 19 % clients (frequent problems with the Internet); 80-100 points (severe IA) had been found at 3 % clients (significant problems with the Internet).

Based on the results front total moderate and severe level off IA had been found at 22 % clients (no LinkedIn users). Based on the results in Table II and Graph 1., this study reveals a statistically ***extremely significant association between Internet addiction and LinkedIn users*** (The two-sided P value is < 0.0001, considered extremely significant by Fisher's Exact Test).

CONCLUSIONS

Only 10 % clients without Internet Addiction, 25 % clients with mild IA.

Total moderate and severe level off IA had been found at 65 % clients (LinkedIn users).

This study reveals a statistically extremely significant association between Internet addiction and LinkedIn users (The two-sided P value is < 0.0001, considered extremely significant by Fisher's Exact Test).

The data suggest the necessity of the continued examination off LinkedIn users, evaluation and follow-up evolution of IA by Telepsychiatric service.

Acknowledgment

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The authors report no competing interests.

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Footnotes

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MIRTAZAPIN U LIJEČENJU DEPRESIVNIH PACIJENATA

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Orginalni naučni rad
Sažetak:
UVOD: Depresija u psihijatriji pokriva veliko područje mentalne patologije i predstavlja jedan od najsloženijih medicinskih problema savremene medicine, utiče na zdravlje pojedinca, ali i probleme društva u cjelini. Mirtazapin je atipični antidepresiv sa alfa-2 adrenergičkim antagonizmom i blokirajućim djelovanjem na serotonin 5-HT2 i 5-HT3 receptore, tako da ima minimalno neželjeno djelovanje.
CILJ: U grupi pacijenata sa dijagnostikovanom depresijom ispitivano je djelovanje mirtazapina i pojavljivanje neželjenih efekata.
METODE: Mirtazapin je primjenjivan 8 sedmica kod 22 pacijenta (12 žena i 10 muškaraca), u dnevnim dozama od 15 do 45 mg. Nivo depresivnosti je mjeren Hamilton skalom za procjenu depresije (Hamilton Depression Rating Scale, HAMD). Pacijenati koji su testirani ovom skalom bili su sa rekurentnim depresivnim poremećajem, bipolarnim afektivnim poremećajem i organskim afektivnim poremećajem. Na početku liječenja minimalni zbir bio je 17 prema HAMD-21 (Hamiltonova skala za procjenu depresivnosti sa 21 stavkom) i ocjena veća od 2 na stavci 1 HAMD-21. Djelovanje mirtazapina je praćeno sedmično pomoću HAMD-21.
REZULTATI: Manji zbir HAMD-21 uočen je već nakon prve sedmice liječenja i taj pad je nastavljen, da bi nakon 6 sedmica liječenja individualni HAMD-21 zbir bio između 8 i 14. Nakon 8 sedmica liječenja individualni zbir HAMD-21 je bio između 5 i 11 i kod većine ispitanika 50% manji od onog na početku. Samo kod jednog ispitanika primjećena je pospanost, a kod druga 2 porast tjelesne mase.
ZAKLJUČAK: Mirtazapin u liječenju ispitivanih dijagnostičkih kategorija depresije, bez obzira na starost pacijenata ili postojanje komorbiditeta potvrđuje visoku efikasnost već poslije nedelju dana liječenja, što ga po uspješnosti izdvaja iz grupe do sada poznatih antidepresiva. Pacijenti ga podnose dobro, ima brzo terapijsko djelovanje, nema izražene interakcije sa drugim psihofarmacima, a neželjeni efekti blažeg intenziteta javljaju se kod malog broja pacijenata. Iskustva sa mirtazapinom ukazuju da je to siguran lijek brzog djelovanja, koji se dobro podnosi.
Ključne riječi: Mirtazapin, Depresija.

UVOD

Selektivni inhibitori ponovnog preuzimanja serotonona (Selective serotonin reuptake inhibitors, SSRI) i reverzibilni selektivni inhibitori monoamin oksidaze (MAO), kao predstavnici nove generacije antidepresiva svoje dejstvo usmjeravaju na jedan od neurotransmiterskih sistema u mozgu, postižući bolju selektivnost, rjeđe se javljaju neželjena djelovanja i interakcije sa drugim lijekovima (1,2).

Mirtazapin je snažan antagonist centralnih alfa-2 adrenergičkih auto i heteroreceptora i antagonist serotonergičkih 5-HT2 i 5-HT3 receptora. To je noradrenergički i specifični serotonergički antidepresiv (NaSSA). Pokazuje minimum neželjenih dejstava, jer ima nizak afinitet za muskarinske, holinergičke i dopaminergičke receptore, a afinitet za H1 histaminske receptore dovodi do sedacije, što se uz više doze lijeka djelimično neutrališe, jer dolazi do povišenja noradrenergične transmisije. Preporučuje se da početna doza bude 15 mg, a efektivna doza se kreće između 15 i 45 mg dnevno, u jednoj večernjoj dozi (3,4).

Kod pacijenata sa oboljenjima jetre i bubrega, kao i kod starijih osoba izlučivanje lijeka je usporeno, te se preporučuje smanjena doza. Najčešći neželjeni efekti terapijom mirtazapinom su: inicijalna sedacija, iritacija, bolni i ukočeni mišići. Mirtazapin je efikasan antidepresiv za mnoge pacijente sa seksualnom disfunkcijom uzrokovanom SSRI (5,6,7).

Primjena mirtazapina u toku liječenja depresivnih pacijenata dovodi do uspješnijeg i bržeg terapijskog djelovanja na udruženu simptomatologiju različitih kategorija depresivnog poremećaja, utičući na kvalitet života pacijenta i socioekonomsku dobit društva u cjelini (8,9).

Statističke analize pokazuju da svuda u svijetu postoji svijest o ogromnom značaju depresije kao oboljenja koje bitno utiču na ukupno zdravlje i funkcionalnost populacije. Zastupljenost različitih oblika depresije je velika, a količina izgubljenog i oduzetog vremena od profesionalnih i porodičnih aktivnosti je ogromna. Depresija se sve češće posmatra kao hronična bolest s obzirom na to da više od 60% osoba koje su imale prvu depresivnu epizodu ima i naredne depresivne epizode-rekurentni depresivni poremećaj. Rizik rekurencije raste na 70% nakon druge depresivne epizode, a na 90% nakon treće depresivne epizode. Prevalencija depresije u opštoj populaciji procjenjuje se na 2% do 4% (Epidemiologic Catchment Area study), dok godišnja prevalencija iznosi 6,6%. Životna prevalencija procjenjuje se na 16,2%, i to 7-12% za muškarce i 20-25% za žene (10-12).

Predstavnici nove generacije antidepresiva, inhibitori ponovnog preuzimanja serotonona (SSRI) i reverzibilni selektivni inhibitori MAO, svoje dejstvo usmjeravaju na jedan od neurotransmiterskih sistema u mozgu, postižući bolju selektivnost djelovanja, manju pojavu neželjenih dejstava i manje javljanje interakcija sa drugim medikamentima. Konvencionalne meta-analize su pokazale rezultate efikasnosti antidepresiva druge generacije. Dr. Cipriani je sa svojim timom načinila multiplu meta-analizu koja upoređuje, te procjenjuje efikasnost 12 antidepresiva nove generacije prema velikoj depresivnoj epizodi. Načinjen je sistematski pregled 117 randomiziranih kliničkih studija (25 928 ispitanika) od 1991. do 2007.g., koji je upoređivao slijedeće antidepresive u terapijskoj dozi za akutno liječenje unipolarne velike depresivne epizode kod odraslih: bupropion, citalopram, duloksetin, escitalopram, fluoksetin, fluvoksamin, milnacipram, mirtazapin, paroksetin, reboksetin, sertralin i venlafaksin. Glavni ishodi djelotvornosti su bili omjer pacijenata koji je odgovorio ili odustao od aplicirane terapije. Mirtazapin je bio značajno više djelotvoran u odnosu na duloksetin, fluoksetin, fluvoksamin, paroksetin i reboksetin.

Mirtazapin je snažni antagonist centralnih 2 alfa-adrenergičkih auto i heteroreceptora i antagonist serotonergičkih 5-HT2 i 5-HT3 receptora. To je noradrenergički i specifični serotonergički antidepresiv (NaSSA). Pokazuje minimum neželjenih dejstava jer ima nizak afinitet za muskarinske, holinergičke i dopaminergičke receptore, a afinitet za H1 histaminske receptore dovodi do sedacije, što se uz više doze lijeka djelimično neutrališe, jer dolazi do povišenja noradrenergične transmisije. Preporučuje se da početna doza bude 15mg, a efektivna doza se kreće između 15 i 45mg dnevno, u jednoj večernjoj dozi (11-15).

CILJ RADA bio je da se ispita efikasnost lijeka te neželjene reakcije u liječenju depresivnih poremećaja mirtazapinom.

METODOLOGIJA

U Klinici za psihijatriju Kliničkog centra u Banjoj Luci, na Odjeljenju za specijalne psihijatrijske djelatnosti, ispitivana su antidepresivna svojstva i neželjena dejstva mirtazapina u grupi od 22 pacijenta sa klinički dijagnostikovanim depresivnim poremećajem. Ispitivano je 12 žena i 10 muškaraca, starosti od 25 do 65 godina, liječenih u periodu od 2006. do 2007. godine.

Nivo depresivnosti je mjeren Hamilton-21 skalom za procjenu depresije (engl.,

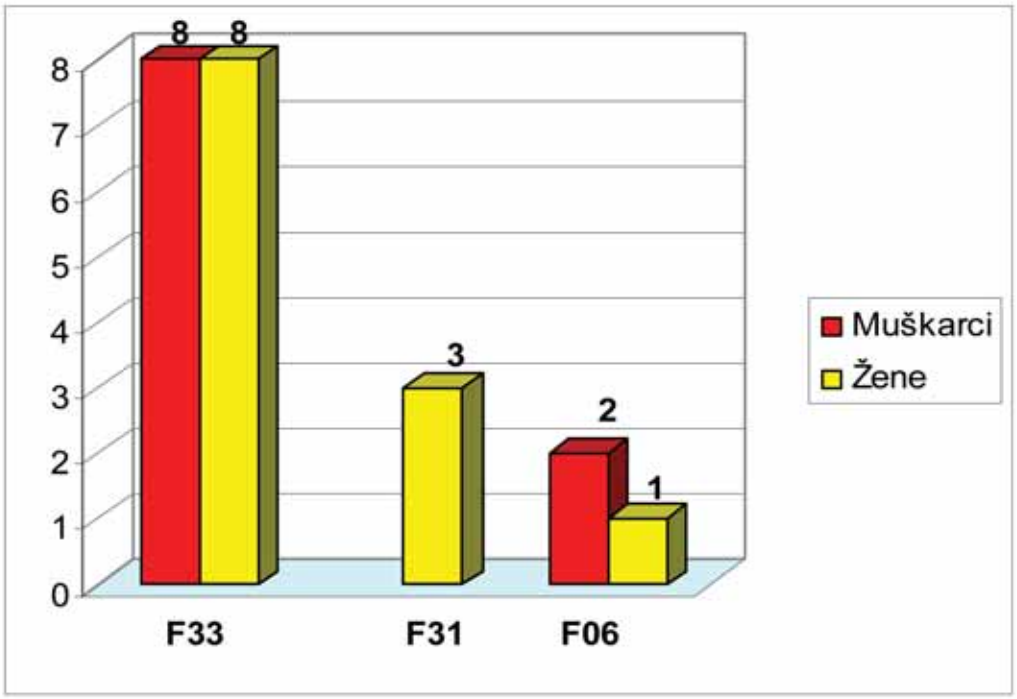
Hamilton Depression Rating Scale, HAMD) sa 21 stavkom. Ispitivani pacijenti su prema zbiru HAMD-21 skale i Međunarodnoj klasifikaciji bolesti razvrstani u dijagnostičke kategorije: povratni depresivni poremećaji (F33) prema Međunarodnoj klasifikaciji bolesti, bipolarni afektivni poremećaj (F31) i organski afektivni poremećaji (F06). Osnovni kriterijumi za uključivanje pacijenata u studiju je bio minimalni zbir od 17 prema HAMD-21skali i ocjenom većom od 2 na stavci 1 (depresivno raspoloženje). Depresivnost je procjenjivana pomoću HAMD-21 skale na početku liječenja i poslije svake nedelje liječenja (osam nedjelja), tj. na kraju liječenja (za obradu je korišten SPSS-10 statistički program).

Mirtazapin je primjenjivan 8 sedmica kod 22 pacijenta, bez ograničavanja drugih lijekova u terapiji. Mirtazapin je doziran od 15 do 45 mg dnevno, najčešće u dnevnoj dozi od 30 mg, jednom uveče.

Najveći broj pacijenata imao je rekurentne depresivne poremećaje (F33).

REZULTATI

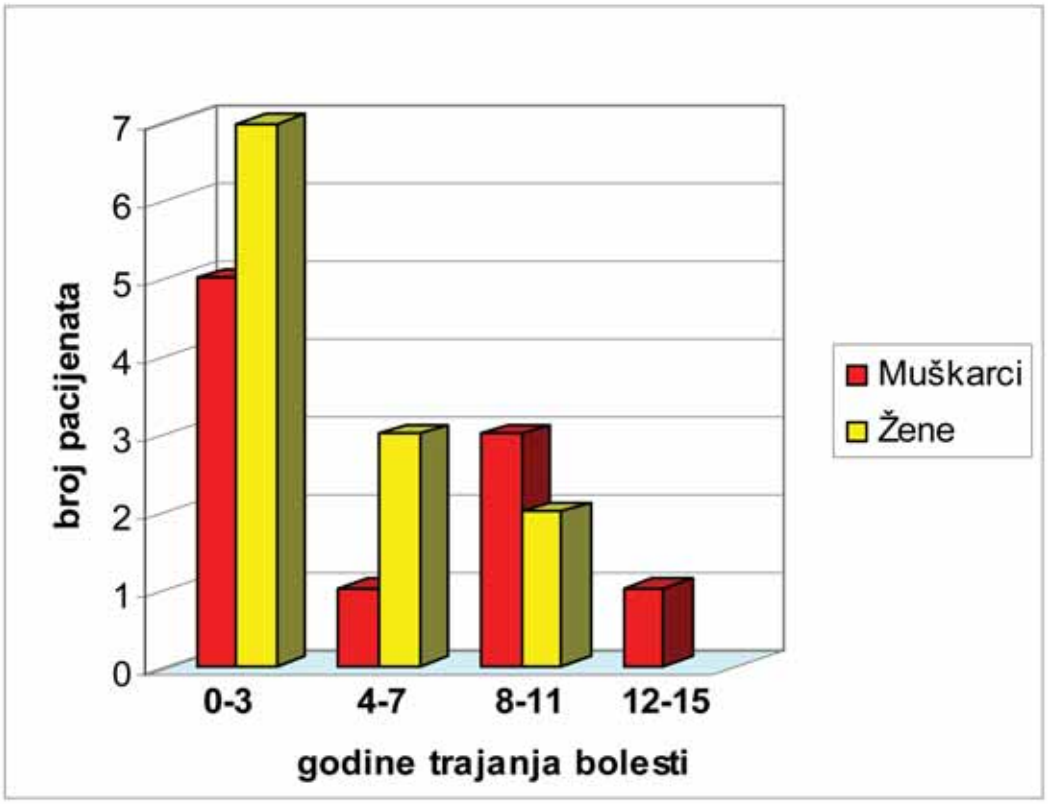
Grafikon 1. Broj pojedinih depresivnih poremećaja prema polu u ispitivanoj grupi



Kod 54,54% (N=12) pacijenata muškog i ženskog pola, bolest je trajala od 0-3 godine, što je imalo povoljan uticaj na tok liječenja.

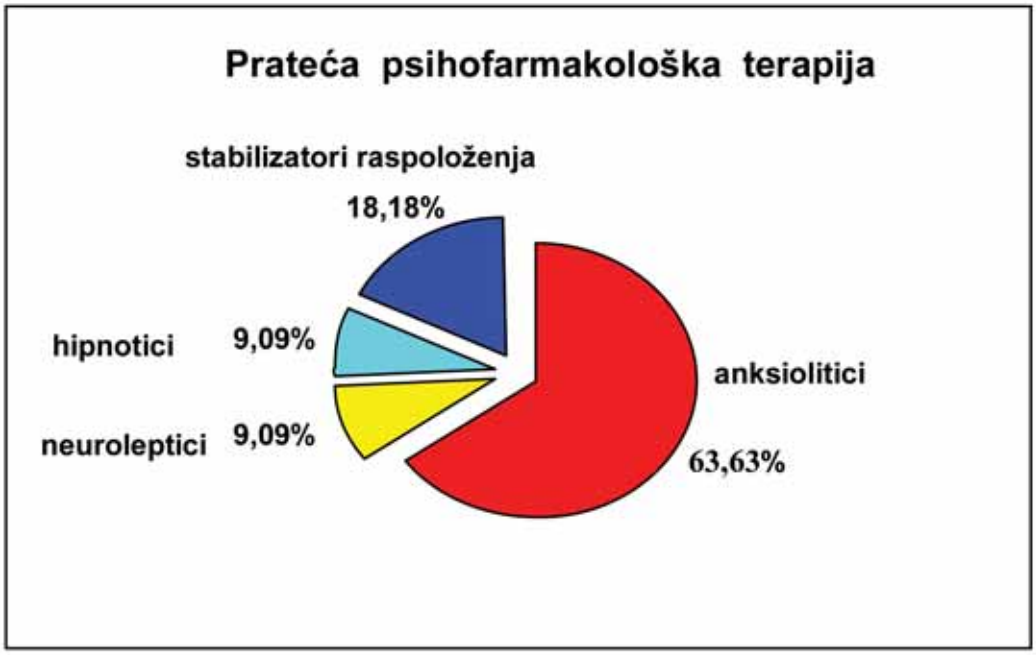
Našli smo da je Mirtazapin efikasan antidepresiv za mnoge pacijente sa SSRI-ma indukovanom seksualnom disfunkcijom, kao i kod ispitanika sa komorbiditetnim Posttraumatskim stresnim poremećajem.

Grafikon 2. Distribucija po godinama trajanja bolesti i polu



Svi pacijenti su dobijali aditivnu psihofarmakološku terapiju, i to anksiolitike 14 pacijenata (63,63%), stabilizatore raspoloženja 4 pacijenata (18,18%), neuroleptike 2 pacijenata (9,09%) i hipnotike 2 pacijenta (9,09%). Od svih pratećih psihofarmakoloških medikamenata dominiraju anksiolitici (63,63%).

Grafikon 3. Prateća psihofarmakološka terapija

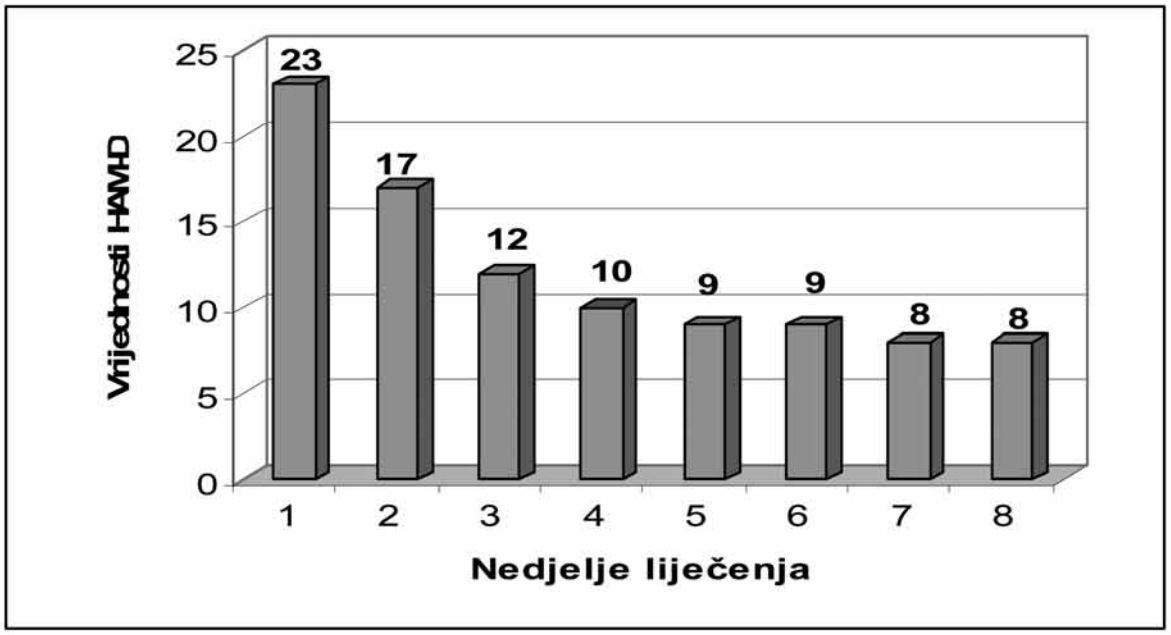


Izraziti individualni pad skora na HAMD-21 uočen je već nakon prve nedelje liječenja, što ukazuje na brzo ispoljavanje terapijskog dejstva lijeka (Grafikon 4. $p< 0.05$ SPSS-10).
Nakon 6 sedmica tretmana, individualni HAMD-21 skor bio je između 8 i 14 (a prosječan 9). Ni jedan ispitanik nije odustao od tretmana, niti prekinuo tretman.

Nakon 8 sedmica tretmana, individualni HAMD-21 skor bio je kod većine ispitanika 50% manji od onoga na početku. Uočeno je značajno smanjivanje depresivnosti od početka do kraja opserviranog tretmana u svim dijagnostičkim grupama pacijenata, a najviše u grupi rekurentni depresivni poremećaj.

Grafikon 4. Redukcija depresivnosti tokom liječenja (prosječna vrijednost HAMD)

$p< 0.05$



Neželjeno djelovanje je primjećeno kod 3 ispitanika (pospanost kod jednog i porast tjelesne mase kod dva ispitanika). Simptomi seksualne disfunkcije nisu se pojavili ni kod jednog ispitanika.

DISKUSIJA

Novi antidepresivi različitih farmakoloških karakteristika, sa većom specifičnošću antidepresivnog djelovanja, bržim početkom i uz manje neželjenih efekata predstavljeni su posljednjih nekoliko godina, u koje između ostalih spada i mirtazapin.

Brojne studije istražuju kvalitet farmakoterapije depresivnih osoba te praćenje procesa liječenja kao i neželjene efekte lijekova (NRL). Među njima posebno se ispituju i seksualne disfunkcionalnosti kao jedan od segmenata NRL (1,2,7,8). U Klinici za psihijatriju, Kliničkog centra u Banjoj Luci, na odjeljenju za specijalne psihijatrijske djelatnosti sprovedeno je istraživanje antidepresivnog svojstva kod depresivnih pacijenata koji uzimaju mirtazapin te ispitivana eventualna javljanja neželjenih efekata u toku liječenju. Naša iskustva govore da primjena mirtazapina u toku liječenja depresivnih pacijenata dovodi do efikasnijeg i bržeg terapijskog djelovanja na udruženu simptomatologiju različitih dijagnostičkih kategorija depresivnog poremećaja, utičući time i na poboljšanje kvaliteta života pacijenta.

Zbog neželjenih efekata koji se javljaju nakon upotrebe antidepresiva, javlja se otpor prema dugotrajnom liječenju efikasnim dozama lijeka i onemogućena je procjena poboljšanja afektivne dimenzije poremećaja, na šta dodatno utiče i subjektivni doživljaj pacijenta.

Depresija pogoršava tok somatskih oboljenja te negativno utiče na stopu morbiditeta i mortaliteta tih bolesti, značajno smanjuje kvalitet života, ometa socijalne komunikacije, smanjuje radnu produktivnost ili trajno oštećuje radne sposobnosti. Kroz više kontrolisanih kliničkih studija do sada dokazana je efikasnost mirtazapina u liječenju depresije, te ublažavanju depresivnog raspoloženja, poboljšanju anksioznosti, somatizacionih poremećaja i poremećaja spavanja (3,6,11,12). Naša studija pokazuje kod ispitanika izraziti pad skora na HAMD-21 već nakon prve sedmice tretmana. Taj trend je nastavljen, dok je nakon 6 sedmica tretmana individualni HAMD-21 skor kod ispitanika bio između 8 i 14, te se taj trend nastavio i nakon 8 sedmica tretmana i bio je između 5 i 11. Nakon 8 sedmica tretmana, individualni HAMD-21 skor bio je kod većine ispitanika 50% manji od onoga na početku. Dobijeni rezultati u našem istraživanju su u saglasnosti sa radovima koji su ispitivali efikasnost mirtazapina (6,9,12).

Rezultat predstavlja poboljšanje, tj. redukciju depresivnih simptoma, koje je statistički signifikantno ($P< 0.05$ SPSS-10)., te je evidentan visok terapijski efekat za sve dijagnostičke kategorije koje su ispitivane, nakon 8 sedmica, a najviše za rekurentni depresivni poremećaj, koji je bio i najviše zastupljen kod pacijenata uključenih u istraživanje.

Najčešći neželjeni efekti terapijom mirtazapinom su: inicijalna sedacija, iritacija, bolni i ukočeni mišići. Ispoljavanja neželjenih efekata mirtazapina je rijetko notirano i to u formi povećanja tjelesne težine, te pospanosti, što je takođe u saglasnosti sa ranijim ispitivanjima (1,8,9,10).

Takođe smo potvrdili da je Mirtazapin efikasan antidepresiv za mnoge pacijente sa SSRI-ma indukovanom seksualnom disfunkcijom, kao i kod ispitanika sa komorbiditetnim PTSP-em (2,4).

Na osnovu sveukupnih rezultata zaključujemo da je mirtazapin efikasan lijek u liječenju depresivnih pacijenata (što su pokazali rezultati Hamilton skale značajnim smanjenjem skora nakon 6 i 8 sedmica). Tokom tretmana nisu zabilježeni neželjeni efekti u smislu seksualnih disfunkcija niti kod jednog od naših pacijenata što je nađeno i u ranijim istraživanjima (1,2,4,8).

ZAKLJUČAK

Mirtazapin u liječenju ispitivanih dijagnostičkih kategorija depresije, bez obzira na starost pacijenata ili postojanje komorbiditeta potvrđuje visoku efikasnost već poslije nedelju dana liječenja, što ga po uspješnosti izdvaja iz grupe do sada poznatih antidepresiva. Pacijenti ga podnose dobro, ima brzo terapijsko djelovanje, nema izražene interakcije sa drugim psihofarmacima, a neželjeni efekti blažeg intenziteta javljaju se kod malog broja pacijenata. Iskustva sa mirtazapinom ukazuju da je to siguran lijek brzog djelovanja, koji se dobro podnosi.

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MIRTAZAPINE IN TREATMENT DEPRESSED OUTPATIENTS

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original scientific paper

Abstract

INTRODUCTION: Depression in psychiatry covers a vast area of mental pathology and presents one of the most complex problems in contemporary medicine. Depression affects health of an individual as well as the problems of the society as a whole. Mirtazapin is a non-typical antidepressant with alpha-2 adrenergic antagonism and the blockade of serotonin 5-HT2 and 5-HT3 receptors, and therefore has the least side effects. AIM: In the group of patients diagnosed with depression, the activity of mirtazapin and its side effects were examined. METHODS: Mirtazapin was taken by 22 patients (12 women and 10 men) for 8 weeks in daily dosages between 15 and 45 mg. The Hamilton Depression Rating Scale-HAMD was used to rate the level of depression. According to this scale, the patients were included groups with recurring depressive disorder, bipolar affective disorder and organic affective disorder.

RESULTS: At the beginning of treatment, the minimum sum was 17 according to the HAMD-21 (Hamilton Depression Rating Scale with 21 questions), and the mark was bigger than 2 on question 1 HAMD-21. The Mirtazapin effects were followed up on a weekly basis with the HAMD-21. The lesser sum of HAMD-21 was noticeable only after the first week of treatment and its decrease continued. However, after a six-week-treatment, the individual HAMD-21 sum was between 8 and 14. After an eight-week-treatment, the individual HAMD-21 sum was between 5 and 11, and in the majority of examinees it was 50% lower from the beginning one. Drowsiness was noticeable in only 1 examinee, and in the other 2, the weight increase was evident. CONCLUSIONS: When treating all diagnostic categories of depression, regardless of the patient's age or presence of comorbidity, Mirtazapin has proved to be efficient only after a one-week treatment, therefore making it more successful than the other antidepressants used so far.

Patients endure it well, it has a fast therapeutic activity, does not have strongly manifested interaction with other psychopharmatics, and low-intensity side effects might appear in few patients. Experiences with Mirtazapin show that it is a safe medicine of fast activity that is well endured.

Key words: Mirtazapin, Depression

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QUALITY OF LIFE AND DEPRESSION IN WAR-RELATED THE ENDURING PERSONALITY CHANGE AFTER CATASTROPHIC EXPERIENCE (F62.0)

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Original scientific article

SUMMARY

GOALS: The authors' objective is to analyze Quality of Life (QoL) and depression in the Enduring personality change after catastrophic expirience (F62.0).

SUBJECTS AND METHODS: In study we include 120 adult men, 60 subjects with diagnosis F62.0. according to ICD-10 (experimental group) and 60 adult men veterans without the diagnosis of F62.0 (control group). The subjects were assessed with the standardized psychometric instruments.

RESULTS: In subjects with Enduring personality change (F62.0) assessment of QoL shows differences in some segments that are important for further monitoring and analysis.The results of the depression in experimental and control group show statistically significance on level ($p< 0.05$) for baseline visit and follow-up visit.

CONCLUSIONS: The statistical relationship between level of combat exposure and war-related F62.0, depression symptoms and QoL, suggests that it may take time for the consequences of traumatic exposure to become apparent. Moreover, degree of exposure may be important in predicting the eventual development of symptoms and precipitation of F62.0. Continued follow-up will address the evolution of PTSD symptoms in war related PTSD. The results indicate the importance of further monitoring and analysis symptoms of depression in F62.0 and QoL.

Keywords: Enduring personality change (F62.0), Quality of life, depression, veterans.

BACKGROUND

More and more studies investigating the quality of life, as well as constellations of depression in psychiatric diseases. In the area of mental health service, one of the ways to demonstrate improved quality of treatment is by demonstrating improved quality of life of the recipients of such care. On the other hand, evaluation of patients' depression can potentially serve as a feedback information source to guide specific areas of improvement of care. The population of Bosnia and Herzegovina suffered massive and prolonged traumatization in the 1992-1995 war. Post-traumatic stress disorder (PTSD) is an important and well-documented mental health outcome among seriously injured civilian and military survivors of trauma. Enduring personality change after catastrophic experience (F62.0) is a diagnostic category included in the International Statistical Classification of Diseases and Related Health Problems, 10th revision (ICD-10). The disorder F62.0 is characterized by enduring personality change, present for at least two years, following exposure to catastrophic stress. The stress must be so extreme that it is not necessary to consider personal vulnerability in order to explain its profound effect on the personality. The disorder is characterized by

a hostile or distrustful attitude toward the world, social withdrawal, feelings of emptiness or hopelessness, a chronic feeling of "being on edge" as if constantly threatened, and estrangement. Post-traumatic stress disorder (F43.1) may precede this type of personality change. Personality change after: concentration camp experiences, disasters prolonged captivity with an imminent possibility of being killed, prolonged exposure to life-threatening situations such as being a victim of terrorism or prolonged torture. These consequences of F62.0 include social, moral, forensic, and other medical aspects, and their monitoring enables more successful results in forensic psychiatry. Increase in prevalence and incidence of Posttraumatic Stress Disorder (PTSD) in comparison to the period before the war, as well as the increase of trauma related disorders in overall psychiatric morbidity represents a logical consequence of prolonged exposure to catastrophic traumatic events. Fifteen years after the war our mental health services are dealing mainly with Enduring personality change (F62.0) and co-morbid psychiatric disorders such as depression, substance-abuse disorders, other anxiety disorders etc. (1-4). Many epidemiological studies have shown that PTSD frequently presents a chronic mental health disorder that is extremely susceptible to secondary traumatization. According to National Co-morbidity Survey, fifty percent of all individuals who develop acute PTSD will develop Enduring personality change (F62.0). One third of these individuals will have persistent symptoms after ten years (5).

Scoring the Quality of Life Profile

Importance and Satisfaction scores range from: 1 (Not at All Important or Not at All Satisfied) to 5 (Extremely Important or Extremely Satisfied). Importance scores serve as a weight for converting enjoyment scores into quality of life scores: [QoL=(Importance Score/3) * (Satisfaction Score-3)] Thus, QoL Scores range from:-3.33 (Not at All Satisfied with Extremely Important Issues) to 3.33 (Extremely Satisfied with Very Important Issues).QoL Scores above 0 reflect positive QoL, and those below 0 represent negative QoL. Items rated as especially important produce especially high QoL scores for items where high satisfaction is indicated. Similarly, items rated as especially important produce especially low QoL scores where lack of satisfaction is indicated. To illustrate, an individual who describes an item as Very Important (4) and reports being Very Satisfied (4) receives a QoL score of 1.33 (4/3 * 4-3). An individual who rates an item as Not Very Important (2) and reports being Not Very Satisfied (2) receives a score of -.67 (2/3 * 2-3). Items rated as being less important produce more moderate QoL scores. Overall, a score of > 1.50 is considered excellent and scores of .51 to 1.50 indicate a very acceptable situation. Scores of -.50 to +.50 indicate an adequate situation, scores of -.51 to -1.50 are problematic, and scores of <.-1.50 are very problematic (6). More and more studies that investigate the focus depression after catastrophic events such as war. Mental health comorbidity patterns and impact on depression among veterans and Chronic multisymptom illness Complex (7-9). There are many studies from Korean War, World War II, to the War on the territory of Bosnia which explores how depression after catastrophic events such as war, and QoL (10-12). Some studies over a long period of time to investigate depression after catastrophic events such as war, and functional comorbidities of multisymptom illnes (13-15). The results of these studies indicate the importance of interventions (medical, social, psychological, legal) for the depression in this group of mental health service users. The aim of our study was to evaluate depression (symptoms of depression in F62.0), and the quality of life QoL (by MANSA= The Manchester Short Assessment of Quality of Life) in a group of veterans of the war in Bosnia and Herzegovina who were diagnosed with Enduring personality change (F62.0), and compare the results with those of veterans

who are not diagnosed with Enduring personality change (F62.0). This analysis was a part of the study of changes in status in veterans suffering from Enduring personality change (F62.0) (16). Modern approach to news and in the treatment of subjects with psychological consequences after catastrophic events such as war, include service for telepsychiatry. Telepsychiatric services and e-consalting it is able to serve not only PTSD but also wide range of other patient population. Continued examination and follow-up evolution of PTSD symptoms by Telepsychiatry service may be important in predicting the eventual development of depressive symptoms and precipitation of the enduring personality exchange after catastrophic expiriense in the war related PTSD (F62.0) (17).

Subjects

The total subjects in intensive study were 120 adult men, veterans with combat exposure who met the inclusion criteria for the study and who agreed to sign the informed consent for the participations in this study. Extensive study included 384 subjects- veterans with combat exposure, among them 64 (16,66%) with diagnosis F62.0. The target population to continue for this research have been veterans with combat exposure from war affected regions, currently residing in Bosnia-Herzegovina, Serbia, Montenegro or Croatia, between 30 and 60 years of age. In intensive study, regarding criteria for inclusion, we include 60 subjects with diagnosis F62.0. according to ICD-10. Participants were excluded: participants with psychotic symptoms, below 30 years of ages, over 60 years of ages, participants refused to participate in the study. Exclusion criteria were all psychiatric comorbid conditions, except depression. The subjects were divided in two groups (experimental group and control group), each comprising of 60 subjects. Experimental group consisted of 60 adult age 30-60, veterans, male psychiatric patients, war-related diagnosis of Enduring personality change (F62.0) according to ICD-10. Control group consisted of 60 adult men, veterans without the diagnosis of Enduring personality change (F62.0) according to ICD-10.

METHODS

The subjects were assessed with the use of the following standardized psychometric instruments: PTSS-10, 20-item General Health Questionnaire (GHQ-20), HAMD-21, IES-90 R, MMSE, MINI, MANSA; Life Stressor List and a socio-demographic questionnaire. Post traumatic stress syndrom-PTSS scale and 21-item Hamilton Rating Scale for Depression-HAMD was used to assess state measures of symptom severity; from 3 months to 15 years after returning from the war. The subjects were screened for eligibility by the use GHQ-test (general health questionnaire) and psychiatric history and psychiatric examination; 21-item Hamilton Rating Scale for Depression-HAMD is a main instrument for assessing depression, additionally we use M.I.N.I 5.0.0 psychiatric interview (18) Mini mental state examination–MMSE (19), Manchester Short assessment of Depression–MANSA(20) MANSA QoL (Manchester Short assessment of Quality of Life) is a generic instrument for assessing quality of life. The MANSA is a brief instrument for assessing quality of life focusing on satisfaction with life as a whole and with life domains. Its psychometric properties appear satisfactory. and screening question on combat stress exposure PTSS-10 test (21). Eligible subjects were assessed by the use of following standardized psychometric instruments: Impact of Events Scale Revised–IES-90 R (22), and a socio-demographic questionnaire that was designed specifically for this study.

The subjects were not reimbursed and they received no other benefit in their treatment for participation in the study.

Statistics

The statistical program used for data analysis was GraphPad Instat 3.05 and SPSS-18 for Microsoft Windows. The

results including data analyses and descriptive statistics with the values of the control and experimental Enduring personality change (F62.0) group. The normality of the distribution of the each of the variables was tested with Kolmogorov-Smirnov's Z-value before a method of data analysis was chosen. Both descriptive statistics regarding years of formal education, monthly income, employment status and including scores on MANSA scale. (mean, standard deviations, median, frequencies and percentages) and data analysis (non-parametric test that is used to compare two group means that come from the same population-MANOVA and Mann-Whitney's U-value) were calculated. HAMD: Summary statistics were produced for the total score at each visit and change from baseline to final visit for subjects in experimental group and control group.

RESULTS

Table 1. Parameters and Satisfaction scores on MANSA quality of life-scale, (mean±SD) in war veterans with or without Enduring personality change (F62.0)

Satisfaction (Quality of Life) †	subjects with Enduring personality change (F62.0) (n = 60)	subjects without Enduring personality change (F62.0) (n = 60)	p
with health*	5.92 ± 0.79	5.51 ± 0.64	>0.05
with mental health*	3.48 ± 0.86	6.16 ± 0.54	<0.05
with financial situation*	3.07 ± 1.07	6.02 ± 0.89	<0.05
with sexual life*	3.18 ± 0.76	5.92 ± 0.74	<0.05
with social life and functioning*	2.74 ± 1.24	5.74 ± 1.05	<0.05
Satisfaction with family*	3.26 ± 1.14	6.12 ± 0.23	<0.05
With life (general satisfaction) *	3.17 ± 0.98	5.68 ± 0.69	<0.05

†Manchester Short Assessment of Quality of Life,
SPSS-18 for Microsoft Windows Mann-Whitney U statistics.,
*Likert-type scale with scores from 1 to 7; a higher score is reflecting a higher quality of life.

Mean values for satisfaction with health in the experimental group were 5.92±0.79 compared with 5.51±0.64 in the control group ($p > 0.05$). Mean values for satisfaction with mental health 3.48±0.86 in the experimental group were compared with 6.16±0.54 in the control group. ($p< 0.05$). Mean values for satisfaction with financial situation in the experimental group were 3.07±1.07 compared with 6.02±0.89 in the control group ($p < 0.05$). The mean values for general satisfaction with life were 3.17±0.98 compared with in 5.68 ± 0.69 the control group ($p < 0.05$). Satisfaction with social life and functioning in the PTSD group was 2.74±1.24 compared 5.74±1.05 with in the control group ($p< 0.001$). Mean score for Satisfaction with family in the experimental group was 3.26±1.14 compared with in 6.12±0.23 the control group ($p < 0.05$). Mean values for satisfaction with sexual life 3.18±0.76 in the experimental group were compared with 5.92±0.74 in the control group ($p< 0.05$).

All Parameters and Satisfaction scores on MANSA quality of life-scale except health (Table 3), shows significant difference between the groups in war veterans with and without Enduring personality change.

There was no significant difference between the groups in monthly income per family member in the non- Enduring personality

change (F62.0) group vs. the Enduring personality change (F62.0) group. There was no significant difference in the level of exposure to the war trauma between the two groups.There was no significant difference between the groups in the answers about being prosecuted for the criminal offence and being a victim of the physical assault (questions 9. And 10. In the Past Year Have You Been Accused of a Crime? In the Past Year, Have You Been a Victim of Physical Violence?).

Table 2. The results of the depression in experimental and control group from Baseline to Final Visit 0-15 years

Depression †	subjects with Enduring personality change (F62.0) experimental group	subjects without Enduring personality change (F62.0) control group	p
Baseline Visit year 0-5	18.06±2.54	15.72±4.60	p <0.05
Follow-up Visit After 5-10 years	16.06±3.21	13.61±4.51	p <0.05
Final Visit After approximately 10 -15 years	14.11±3.75	13.49±4.23	p >0.05

† 21-item Hamilton Rating Scale for Depression-HAMD, SPSS-18 for Microsoft Windows, Mann-Whitney U statistics.

Mean values for Baseline depression 18.06±2.54 in the experimental group were compared with 15.72±4.60 in the control group ($p < 0.05$). Mean values for depression in Follow-up Visit After approximately 5-10 years 16.06±3.21 in the experimental group were compared with 13.61±4.51in the control group ($p < 0.05$). Mean values for depression in Follow-up Final Visit After approximately 10 -15 years 14.11±3.75 in the experimental group were compared with 13.49±4.23 in the control group ($p > 0.05$).

After extensive study and comparison of both groups we have come to the conclusion: The results of the depression in experimental and control group show statistically significance on level $p < 0.05$ for Baseline Visit year 0-5 and Follow-up Visit After 5-10 years; also Final Visit After approximately 10 -15 years show not statistically significance.

After extensive study and comparison of both groups we have come to the conclusion that the subjects with Enduring personality change (F62.0) assessed satisfaction with all components of the quality of life significantly lower than the subjects from the non-F62.0 group. T-test results of experimental and control group. As seen in Table 1; there was no considerable difference between the experimental group and the control group concerning depression. The two-tailed P value is 0.3973, considered not significant ($p > 0.05$). $t=0.8496$ with 118 degrees of freedom.,95% confidence interval; Mean difference = -0.6200 (Mean of Experimental Group minus mean of Control Group) The 95% confidence interval of the difference: -2.065 to 0.8252.

DISCUSSION

This study showed significantly differences in the depression in the period after the war (The results of the depression in experimental and control group show statistically significance on level $p < 0.05$ for Baseline Visit year 0-5 and Follow-up Visit After 5-10 years).

Table 3. The results of the depression in experimental and control group in Final Visit After approximately 10 -15 years

Test	Groups	N	Mean	Sd	t	p
21-item Hamilton Rating Scale for Depression-HAMD†	Experimental Group	60	14.11	3.75	0.8496	p=0.3973
	Control Group	60	13.49	4.23		

†The statistical program GraphPad Instat 3.05

Final Visit After approximately 10 -15 years show not statistically significance. It is the authors' belief that research data about relationship between level of combat exposure and war-related Enduring personality change (F62.0), depression symptoms and QoL should inform the decision makers in planning efficient services (health, mental health and social services) that can adequately serve the needs of this group of our patients and help reduce suffering, and somatic and psychiatric disability through improving the functioning of the affected individuals. Further research for depression assessment and Enduring personality change (F62.0) for war-related patients provides relevant information for the mental health professionals. Also is needed to confirm our results and to better identify the factors affecting the depression of veterans with Enduring personality change (F62.0) and also to help identify protective and risk factors for the persistence of Enduring personality change (F62.0). Results for answers about being prosecuted for the criminal offence and being a victim of the physical assault are similare with other research(23), also our results for depression in war-related post traumatic stress disorder and the enduring personality change after catastrophic experience are correspodent with similare research (24). There were no significant differences between the two groups in exposure to traumatic events during the war. The results of this study are similare with other research, show no significant difference between the groups in monthly income per family member, also no significant difference in the level of exposure to the war (16,17).

CONCLUSIONS

The results indicate the importance of further monitoring and analysis which include all Quality of life and factors and the depression for the subjects in this study.The statistical relationship between level of combat exposure and war-related Enduring personality change (F62.0), depression symptoms and QoL at 15 years, suggests that it may take time for the consequences of traumatic exposure to become apparent. Moreover, degree of exposure may be important in predicting the eventual development of symptoms and precipitation of F62.0 enduring personality change. Continued follow-up will address the evolution of PTSD symptoms in war related PTSD. Depression assessment provides relevant information for the mental health professionals.

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SUICIDALNOST KOD DEPRESIVNIH PACIJENATA

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Orginalni naučni rad
sažetak:
UVOD: Mentalno zdravlje je od suštinskog značaja za kvalitet života jer unapređenjem mentalnog zdravlja povećava se kvalitet života i mentalno blagostanje čitave populacije, uključujući i ljude s mentalnim problemima i njihove članove porodice, prijatelje i druge osobe izvan zvaničnih službi koje pružaju njegu a samim tim se utiče i na smanjenje stope suicida, imajući u vidu da najveći postotak suicida i počine osobe s mentalnim poremećajima, oko 90% svih suicida.
CILJ: Ova studija istražuje probleme dijagnostike i liječenja depresivnih poremećaja, suicidalnosti depresivnih pacijenata, zastupljenost broja depresivnih osoba i faktore rizika kod suicidalnog ponašanja, te način prevencije suicidalnosti depresivnih pacijenata.
METODE: U kliničkom istraživanju Odjeljenja za urgentnu psihijatriju Kliničkog centra u Banjoj Luci, u vremenskom periodu od 1. januara 2006. godine do 1. januara 2007. godine ispitivali smo ukupno 420 hospitalizovanih pacijenata, 297 žena i 123 muškarca, dobi od 25 do 65 godina, koji su ispunjavali PHQ-9.
REZULTATI: Od ukupno hospitalizovanih 420 pacijenata 42 (10,0%) je pokušalo samoubistvo. Od toga 17 (4,05%) koji su pokušali samoubistvo hospitalizovani su pod primarnom dijagnozom Dg: Tentamen suicidii. Pokušaj samoubistva pacijenata koji su bili u hospitalizovani pod primarnom Dg: Depressio je 25 (5,95%) depresivnom stanju. U grupi pacijenata s pokušajem samoubistva sa primarnom dijagnozom Dg: Tentamen suicidii od ukupno 17 hospitalizovanih pacijenata kod 6 je depresija je recidivirala više od tri puta prije suicidalnog čina.
ZAKLJUČAK: Naše ispitivanje faktora rizika kod suicidalnog ponašanja na uzorku 420 kliničkih ispitanika nije našlo statistički značajne razlike u pogledu faktora rizika. I dalje ostaje otvoreno pitanje koliko smo u mogućnosti da preveniramo sve suicide. Paradoksalno, uz sve navedeno i poznato, mogućnosti sigurne predikcije i prevencije suicida još uvek su limitirane. Samoubilački čin je svojstven samo čovjeku, prisutan u svim kulturama i ostao nerazjašnjen do današnjeg dana.
Ključne riječi: suicidalnost, depresija, farmakoterapija, tretman

UVOD

Prevalencija depresije u opštoj populaciji procjenjuje se na 2% do 4%, dok godišnja prevalencija iznosi 6,6%. Životna prevalencija procjenjuje se na 16,2%, i to 7-12% za muškarce i 20-25% za žene. Žene pokušavaju izvršiti suicid tri puta češće od muškaraca, a muškarci izvršavaju suicid četiri puta češće od žena (1). Suicid je kompleksan, multikauzalni bihejvioralni fenomen koji zahtijeva kompleksan pristup u cilju razumijevanja faktora rizika. U modernom svijetu on je važan sociopatološki entitet, u većini evropskih zemalja broj suicida je značajno viši od broja smrti uzrokovanih saobraćajnim nesrećama. Prema pravnoj definiciji, suicid je poguban, svojevoljan, životno ugrožavajući čin nad sobom bez očite želje za životom, a implicitne su dvije osnovne komponente – letalnost i namjera. Suicidalni pokušaj mogao bi se definisati kao *autodestruktivno ponašanje sa eksplicitnom namjerom umiranja.* Suicidalnost kao fenomen ljudskog ponašanja može se sagledavati sa različitih aspekata: biološkog istorijskog, epidemiološkog, kulturalnog teološkog,

sociološkog, psihološkog, ekonomskog itd., u spektru od suicidalnog razmišljanja (ideacije) do izvršenja suicida. Suicidalna ideacija može se kretati od pasivnih ideja do ideja sa planom i namjerom. Osim primarnih dijagnoza značajne prediktore za suicidalno ponašanje predstavljaju i aktuelno postojanje suicidalnih ideja, raniji pokušaji samoubistva, osjećanje bespomoćnosti ili beznadežnosti, stanje agitacije ili očaja, te posebni socijalni faktori ili nepovoljni životni događaji (gubitak, razvod, samoća, otkaz na poslu, izolacija, finansijske teškoće) te suicidalnom riziku doprinose i demografske karakteristike (muški pol, starije životno doba, bijela rasa), hereditarni faktori-postojanje članova porodice koji su počinili samoubistvo, prethodna psihijatrijska bolest, zavisnost o drogama, alkoholu ili kockanju, izloženost nasilju, te pristup vatrenom oružju u kući (2). Pojam depresije se može definisati kao klinički sindrom čiju fenomenologiju čine patološko raspoloženje, depresivni sadržaj mišljenja, poremećaji voljno – nagonskih dinamizama i vegetativne smetnje, što predstavlja definiciju prema aktuelnoj simptomatologiji, bez etiološke konotacije. Svakodnevni zahtjevni, brzi i sve složeniji uslovi života, izloženost raznim frustracijama, usamljenost savremenog čovjeka stvaraju podlogu za razvoj anksioznosti i depresije. Depresija povećava morbiditet, mortalitet i korišćenje zdravstvenih usluga što se sve odražava na socioekonomski aspekt ovog poremećaja tj. cijenu koju plaćaju pacijenti, njegova porodica i društvo. Trajanje poremećaja kroz određeni vremenski period prouzrokuje bitan poremećaj funkcionisanja i sposobnosti za donošenje odluka. Dolazi do pada motivacije, radne sposobnosti, povlačenja, izbjegavanja socijalnih aktivnosti uz gubitak interesovanja. U odnosu na onesposobljenost koju izaziva, od svih medicinskih bolesti depresija je na četvrtom mjestu na listi SZO, a predviđa se da će 2020. godine biti druga, odmah iza ishemijske bolesti srca. Preko 15% depresivnih osoba izvrši suicid. Depresija se uspješno liječi. Između 60% i 70% depresivnih pacijenata dobro odreaguje na primjenjeni antidepresivni psihofarmak. Depresivan poremećaj se javlja u 6–35% pacijenata u primarnoj zdravstvenoj zaštiti dok čak oko 50% aktuelno depresivnih osoba ostaje neprepoznato i nedijagnostikovano, što znači da se te osobe i ne liječe (3,4,5). Jedan od 8 pokušaja suicida je fatalan, a oko 3% ljudi koji su ranije pokušali da se ubiju konačno izvrše suicid (6). Ustanovljeno je da 70% suicida izvrše pacijenti sa istorijom hronične bolesti. Oko 60% svih izvršenih suicida otpada na depresiju. *Između 15% i 20% depresivnih osoba izvrši suicid,.* Komorbidna medicinska bolest je važan rizični faktor suicida. Starije osobe zbog narušenog opšteg zdravlja, koje dodatno pogoršava depresija izvrše 25% od svih suicida (7). Pacijenti sa suicidalnim ponašanjem imaju sniženu aktivnost centralne serotonergičke aktivnosti. Ovakav nalaz imaju i osobe koje manifestuju oslabljenu kontrolu impulsa i nasilno ponašanje (8,9). Druge studije ukazuju na sniženu aktivnost presinaptičkog serotoninskog transportera u prefrontalnom korteksu, naročito u ventralnoj regiji kod suicidalnih osoba (10). Genetska istraživanja potvrđuju povezanost serotonergičkog sistema transmisije i suicidalnosti. Moguća je uloga polimorfizma TPH1 gena u razvoju rizika za suicidalno ponašanje, jer taj gen kodira enzim koji je značajan u sintezi serotonina. Neke studije ukazuju na potencijalnu ulogu polimorfizma promotera gena za serotoninski transporter (5-HTTLPR) dok druge kao mogući prediktor suicidalnosti navode nivo 5-hidroksi-indol-sirćetne kiseline (5-HIAA) u likvoru (11,12,13). Nažalost, pored svega navedenog, dosada nije pronađen specifični biološki marker kojim bi se načinila distinkcija

suicidalnih od nesuicidalnih pacijenata (14). U liječenju suicidalnog ponašanja primjenjuje se psihofarmakoterapija, grupna i individualna terapija, uz napomenu da još uvijek postoji kontroverzan stav prema određenim lijekovima u smislu povećanja sklonosti ekspresiji suicidalnog ponašanja. Izbor psihofarmaka zavisi od težine bolesti, izraženosi suicidalnog rizika, sigurnosti i djelotvornosti lijeka, neželjenim efektima ili interakcijama s drugim lijekovima, bolesnikovoj saradnji, komorbiditetu, te socijalnoj podršci.

CILJ ovog rada je da se analizom dijagnostike i liječenja depresivnih poremećaja utvrdi suicidalnost depresivnih pacijenata. To obuhvata ispitivanje hospitalizovanih depresivnih pacijenata i utvrđivanje faktora rizika kod suicidalnog ponašanja.

METODOLOGIJA

Studija je obuhvatila 420 pacijenata oba pola, 297 žena i 123 muškarca, starosti od 25 do 65 godina, liječenih u periodu 2006-2007. na Odjeljenju za urgentnu psihijatriju, Klinike za psihijatriju KC Banjaluka. Kao instrument korišten je PHQ-9 (Patient Health Questionnaire-9) na Odjeljenju za urgentnu psihijatriju. Ispunjeni upitnici odmah su pregledani i skorirani.

Dijagnostičke kategorije pacijenata uključenih u studiju su bile:

- F32 – Depresija
- F33 – Rekurentni depresivni poremećaj (depresivne epizode).

Upitnikom za podatke o pacijentima sa psihijatrijskom dijagnozom iz medicinske dokumentacije prikupljeni su podaci o psihijatrijskoj dijagnozi prema MKB-10 i propisanim psihofarmacima za 420 pacijenata koji su imali kompletnu psihijatrijsku kliničku i drugu medicinsku dokumentaciju.

Klinički dijagnostikovana, depresivnost je potvrđena i evaluirana Hamiltonovom skalom za procenu depresivnosti (HAMD-21).

Demografski podaci analizirani su primjenom deskriptivne statistike a značajnost razlika testirali smo pomoću t-testa.

REZULTATI

U našem ekstenzivnom ispitivanju došli smo do sljedećih rezultata: Svi ispitanici su dobijali dodatnu psihofarmakološku terapiju, anksiolitike 270 pacijenata (64,28%), stabilizatore raspoloženja 76 (18,09%), neuroleptike 40 (9,52%) i hipnotike 34 pacijenta (8,09%). Najdominantniji od svih pratećih apliciranih psihofarmaka su anksiolitici (64,28%).

Daljnjim istraživanjem na Odjeljenju za urgentnu psihijatriju došli smo do sljedećih rezultata: od ukupno hospitalizovanih 420 pacijenata 42 (10,0%) je pokušalo samoubistvo. Od toga 17(4,05%) koji su pokušali samoubistvo hospitalizovani su pod primarnom dijagnozom Dg: Tentamen suicidii. Pokušaj samoubistva pacijenata koji su bili u hospitalizovani pod primarnom Dg: Depressio je 25 (5,95%) depresivnom stanju. U grupi pacijenata s pokušajem samoubistva sa primarnom dijagnozom Dg: Tentamen suicidii od ukupno 17 hospitalizovanih pacijenata kod 6 depresija je recidivirala više od tri puta (Dg. Rekurentni depresivni poremećaj) prije suicidalnog čina.

Našli smo u anamnezi hospitalizovanih pacijenata s pokušajem suicida da je kod preko tri četvrtine ispitanika *prvi pokušaj suicida bio bez prethodno verifikovanog psihijatrijskog poremećaja* (uglavnom su razlozi bili: izbjeglištvo, loši socio-ekonomski uslovi, nezaposlenost, pozitivan hereditet za psihijatrijske poremećaje,). Od tri hospitalizovana pacijenta koji su bolovali od komorbiditetne epilepsije (uz depresiju) dva su pokušala suicid. 5 hospitalizovanih pacijenata od ukupnog broja pacijenata sa pokušajem suicida je imalo dijagnozu psihoze s pokušajem suicida; 13 hospitalizovana pacijenta pacijenata sa pokušajem suicida je pokušalo

samoubistvo s prethodnom ili komorbiditetnom dijagnozom psihoorganskog poremećaja.
Ukupno 42 (10%) ispitanika bila su "pozitivna" na PHQ-9, odnosno skor je bio 10 i više poena.
U drugoj fazi intenzivnog istraživanja sa ovih 42 ispitanika obavljeni su klinički dijagnostički intervjui za depresiju i rekurentni depresivni poremećaj.

U trećoj fazi intenzivnog istraživanja ispitivani uzorak depresivnih osoba (N=42) podvrgnut je Upitniku o sociodemografskim i sociobiografskim podacima, te je ispitan i socio-ekonomski status. Svaki ispitanik je dao odgovor na pitanje o stresnim životnim događajima u posljednjih 6 mjeseci, koji su, po mišljenju samih ispitanika mogli doprinijeti pojavi depresivnih simptoma.
Rezultati socio-ekonomskog statusa naših ispitanika pokazuju veoma nizak nivo sa prosječnim godišnjim prihodom 2213,7± 678,5 KM(konvertibilne marke).
Rezultati nisu potvrdila statistički značajne razlike kod naših ispitanika u ovom segmentu($p > 0.05$).

Na kraju je izvršen uvid u kompletnu medicinsku dokumentaciju, koja je analizirana, te su tako prikupljeni i podaci o hroničnim somatskim bolestima, bolnim sindromima, te prisustvu agresivnosti kod izdvojene grupe depresivnih ispitanika (N=42).
Ovo ispitivanje pokazalo je takođe da više od polovine depresivnih osoba 25 (59,52%) povezuje svoje "psihičko stanje" sa nekim stresnim događajem ili dugotrajnijom stresnom situacijom u posljednjih 6 mjeseci.
Najviše depresivnih ispitanika povezuje sa pojavom depresivnih simptoma i suicidalnošću neki od životnih događaja-a najčešće je to gubitak bliske osobe ili posla. Potom, najveći broj depresivnih ispitanika svoje aktuelno psihičko stanje povezivalo je sa "dugotrajnijim materijalnim problemima" i "problemima na radnom mjestu, mobingom" (privatizacija firme, prijeteći otkazi, racionalizacija radnih mjesta, promjena radnog mjesta).
U našem uzorku nisu nađene statistički značajne razlike depresivnih ispitanika (N=42) u odnosu na mogući uzrok psihičkog stanja suicidalnih tendencija u konstelaciji sa stresnim događajem ili dugotrajnijom stresnom situacijom.
Tako obuhvaćeno ispitivanje i utvrđivanje faktora rizika kod suicidalnog ponašanja nije našlo statistički značajne razlike u pogledu faktora rizika.
Istraživanjem asociranih simptoma i oblika ponašanja kod naših ispitanika (N=42) nađena su najčešće nesanice i anksioznost, te agresivnost ili hostilno ponašanje. Kod preko dvije trećine ispitanika evidentirali smo nesanice kao i anksioznost. Kod preko polovine ispitanika našli smo elemente agresivnosti ili hostilnog ponašanja što je u konstelaciji sa povišenim suicidalnim rizikom.
Naše istraživanje potvrđuje asociranost dugotrajnih uticaja stresnih faktora, jer 5 (11,9%) ispitanika ima posljedice nakon hroničnog PTSP-a u Formi Trajnih promjena ličnosti (komorbiditet sa depresijom), te su kod 9 (21,42%) ispitanika nađene posljedice depresivnih poremećaja uzrokovane mobingom.

DISKUSIJA

Depresija se sve češće posmatra kao hronična bolest, te klinička iskustva pokazuju da više od 60% osoba koje su imale prvu depresivnu epizodu ima i naredne depresivne epizode-rekurentni depresivni poremećaj. Rizik rekurencije raste na 70% nakon druge depresivne epizode, a na 90% nakon treće depresivne epizode. Gubitak bliske osobe kao precipitator depresije navodi se u brojnim studijama i smatra se jednim od najvažnijih događaja, koji najčešće prethodi prvoj depresivnoj epizodi (1,2). *Rezultati naših ispitanika nisu potvrdila statistički značajne razlike kod naših ispitanika u ovom segmentu.* ($p > 0.05$).
Naše ispitivanje pokazalo je da više od polovine depresivnih osoba 25 (59,52%)

povezuje svoje "psihičko stanje" sa nekim stresnim događajem ili dugotrajnijom stresnom situacijom u posljednjih 6 mjeseci. Od životnih događaja-gubitak bliske osobe ili posla, sa pojavom depresivnih simptoma i suicidalnošću povezuje najviše depresivnih ispitanika. Potom, najveći broj depresivnih ispitanika svoje aktuelno psihičko stanje povezivalo je sa "dugotrajnijim materijalnim problemima" i "problemima na radnom mjestu" (mobing, privatizacija firme, prijeteći otkazi, racionalizacija radnih mjesta, promjena radnog mjesta) što je sasvim razumljivo u vremenu recesije i ekonomske krize. Nisu nađene statistički značajne razlike depresivnih ispitanika iz našeg uzorka (N=42) u odnosu na mogući uzrok psihičkog stanja suicidalnih tendencija u konstelaciji sa stresnim događajem ili dugotrajnijom stresnom situacijom. Međutim, prije i tokom ovog istraživanja *dogodio se priličan broj samoubistava* (koje smo pratili putem medija) *koja nisu uopšte hospitalno tretirana* a u velikom broju slučajeva radilo se o "dugotrajnijim materijalnim problemima", "hipotekarskim ugovorima", "žirantskim problemima", te čak 2 samoubistva adolescenata zbog loših ocjena u školi koji zavrijeđuju posebnu pažnju. Zadnjih mjeseci očevici smo tzv. *bilansnih samoubistava* osoba koje zbog nemogućnosti vraćanja kredita ili dostojanstvenog daljeg življenja zbog materijalnih teškoća, nemogućnosti prehranjivanja porodice ili adekvatnog liječenja ili sličnih ozbiljnih problema zapadaju u tešku depresiju i počine samoubistvo. Sve to je iniciralo da u ovom istraživanju ispitamo faktore rizika. Obuhvaćeno ispitivanje i utvrđivanje faktora rizika kod suicidalnog ponašanja ipak nije našlo statistički značajne razlike u pogledu faktora rizika, no napred navedena dešavanja bi trebala biti u fokusu narednih istraživanja i razmatranja bolje organizacije u preventivnom smislu.

Ozbiljnost posljedica kod nedijagnostikovanja depresivnih poremećaja postavljaju imperativ da bi se pacijenti kod kojih postoji sumnja na depresivni poremećaj morali rutinski ispitivati u odnosu na suicidalnu ideaciju. Ljekari opšte prakse bi razgovor sa pacijentima češće mogli usmjeravati u pravcu rasvjetljavanja: teškoća sa spavanjem/nesanice, smanjenja energije i povećane zamorljivosti, gubitka interesovanja i zadovoljstva, depresivnog raspoloženja, doživljaja da su iznevjerili sebe ili druge (simptomi prema PHQ-9) i postojanja suicidalnih misli. Na ovo se logično nadovezuje pitanje određivanja kvalitetne farmakoterapije depresivnih stanja, te implikacije na njihov daljnji efekat kod suicidalnih depresivnih pacijenata.

Brojne studije izvještavaju da je nizak socio-ekonomski status povezan sa visokom prevalencom depresivnih poremećaja i suicidalnih tendenci. Rezultati socio-ekonomskog statusa naših ispitanika pokazuju veoma nizak nivo. Broj depresivnih osoba, ne samo u svijetu nego i kod nas, će se i dalje povećavati, a jedan od razloga je izloženost prolongiranom stresoru iz okruženja. Najnovija istraživanja potvrđuju teze asociranosti dugotrajnih uticaja stresnih faktora, posljedica PTSP-a, te mobinga na pojavu i učestalost depresivnih poremećaja, te povećanu prevalencu depresivnih poremećaja povezana sa nezaposlenošću, niskim primanjima i hroničnim somatskim bolestima (15,16,17,18) što je saglasno sa našim istraživanjem. Telepsihijatrijska iskustva ostvarena radom putem besplatnog telepsihijatrijskog servisa pokazuju pozitivnu korelaciju depresivnosti i internet adikcije kod ispitanika sa PTSP-om, što može biti u korelaciji sa suicidalnim rizikom (18,19,20,21). Mnogobrojne studije potvrdile su povezanost agresivnosti sa povišenoim suicidalnim rizikom (22,23,24)., što se potvrdilo i u našem istraživanju.

ZAKLJUČAK

Depresivni poremećaji su vrlo česti, najčešće se ne prepoznaju i ne dijagnostikuju. Svaka četvrta depresivna osoba, skoro svakodnevno, je imala suicidalne misli. Svaki pokušaj suicida psihijatar mora shvatiti ozbiljno, te prije odabira terapijskog postupka i pristupa depresivnom pacijentu potrebno je procijeniti suicidalni rizik. Oko 80% suicidalnih bolesnika pokazuje znakove prije samog čina, ali nema jedinstvenog prediktora koji bi upućivao na sam suicid ili presuicidalno ponašanje, nego se radi o spletu mnogobrojnih faktora.

Naše ispitivanje i utvrđivanje faktora rizika kod suicidalnog ponašanja na uzorku 420 kliničkih ispitanika nije našlo statistički značajne razlike u pogledu faktora rizika.

Tretman suicidalnosti je kompleksan postupak, različit i specifičan za svakog pojedinca. Selektivni ihibitori ponovnog preuzimanja serotonina (SIPPS) su lijekovi prve linije u liječenju depresije, a time vjerovatno u opštoj populaciji, te kod starijih osoba, somatskih bolesnika i trudnica značajno reduciraju rizik od suicida.

Pravovremenim prepoznavanjem i liječenjem osoba sa suicidalnim ponašanjem i depresijom preveniraju se tragične posljedice. Važno je stvaranje tzv. ugovora prevencije suicida, procjena terapijskog saveza i bolesnikovog nivoa suicidalnog rizika.

I dalje ostaje otvoreno pitanje koliko smo u mogućnosti da preveniramo sve suicide. Paradoksalno, uz sve navedeno i poznato, mogućnosti sigurne predikcije i prevencije suicida još uvek su limitirane. Samoubilački čin je svojstven samo čovjeku, prisutan u svim kulturama i ostao nerazjašnjen do današnjeg dana.

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SUICIDALITY OF DEPRESSION PATIENTS

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original article

Summary:
BACKGROUND: Mental health is essential to improving quality of life for mental health increases the quality of life and mental well-being of the entire population, including people with mental health problems and their family members, friends and other people outside the formal services which provide care and therefore the impact on reducing rates of suicide, bearing in mind that the highest percentage of people commit suicide and mental disorders, about 90% of all suicides. OBJECTIVE: This study explores the problems of diagnosis and treatment of depressive disorders, suicidal depressive patients, the presence of depressed individuals and risk factors for suicidal behavior, and how to prevent suicidal depressive patients. METHODS: The clinical research of the Department for Emergency Psychiatry, Clinical Centre in Banja Luka, in the period from 1 January 2006. to 1 January 2007. year we examined a total of 420 hospitalized patients, 297 women and 123 men, aged 25-65 years, who met the PHQ-9. RESULTS: Of the 420 hospitalized patients 42 (10.0%) attempted suicide. Of these 17 (4.05%) who attempted suicide were hospitalized under the primary diagnosis Dg: attempt of Suicidio. Attempted suicide patients who were hospitalized in the primary Dg: Depressió 25 (5.95%) with depressive state. In the group of patients with attempted suicide with a primary diagnosis of Dg: Suicidio attempt of a total of 17 patients hospitalized in 6 depression recurred more than three times before the suicidal act. CONCLUSION: Our study of risk factors for suicidal behavior in a sample of 420 clinical subjects found no statistically significant differences in risk factors. It is still an open question how much we are able to prevent all suicide. Paradoxically, besides all the known features of safe prediction and prevention of suicide are still limited. Suicidal act is peculiar to man, present in all cultures and remains unresolved to this day.

Key words: suicidality, depression, pharmacoterapy, treatment

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E-CONSALTING BY TELEPSYCHIATRIC SERVICES AND WAR RELATED POSTTRAUMATIC STRESS DISORDER

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Original scientific paper
Abstract:
BACKGROUND AND AIMS:
This study was examination e-consalting by Telepsychiatry of war related posttraumatic stress disorder (PTSD).
METHODS: Patients with PTSD have different symptoms.
The authors' objective is to analize component of symptoms in PTSD.
The subjects were 180 male psychiatric patients by Telepsychiatry and e-consulting with war related PTSD by videoconferencing via broadband ADSL by 2 Mbps. Posttraumatic stress syndrome-PTSS scale and 20-item.
Zung self-rating scale was used to assess state measures of symptom severity.
RESULTS: The symptoms of prolonged PTSS (posttraumatic stress syndrome) with duration between six moths and two years had been founded at 138 (76,7 %) and 42 (23,3 %) of patients had no PTSS: symptoms of depression had been found at 148 (82,2 %) patients. The enduring personality exchange after catastrophic expiriense (F62.0), had been found at 25 (13,8 %) patients (P< 0.01); symptoms of depression had been found at 61 (33,8 %) patients after two years.
CONCLUSIONS: Evolution of PTSD symptoms and continued examination and follow-up by Telepsychiatry service and e-consalting may be important in predicting the eventual development of depressive symptoms and precipitation of F 62.0 enduring personality exchange after catastrophic experience in the war related PTSD. Consequently,Telepsychiatry service and e-consalting it is able to serve not only PTSD but also wide range of other patient.
Keywords: PTSD, Telepsychiatry, E-consulting, psychiatry, disorders, war

INTRODUCTION

The term "telepsychiatry" refers to the use of telecommunication technologies with the aim of providing psychiatric services from a distance. Telepsychiatry and e-mental health services primarily involve videoconferencing over high speed (broadband) networks to enable natural interactions between patients and providers. Telepsychiatry connects patients and mental health professionals, permitting effective diagnosis, treatment, education, transfer of medical data and other activities related to mental health care. Traditionally, this has required leasing specialized high speed telephone circuits that were dedicated for videoconferencing. Modern approach to news and in the treatment of subjects with psychological consequences after catastrophic events such as war, include service for telepsychiatry. Telepsychiatric services and e-consalting it is able to serve not only PTSD but also wide range of other patient population. Continued examination and follow-up evolution of PTSD symptoms by Telepsychiatry service may be important in predicting the eventual development of depressive symptoms and precipitation of the enduring personality exchange after catastrophic expiriense in the war related

PTSD (F62.0). Telepsychiatry can be quite helpful in providing this type of service for patients with PTSD. A telepsychiatry service, using wireless technologies (WADSL) was established in order to provide psychiatric assessments and/or treatment for patients with PTSD. A telepsychiatry service providing mental health care by videoconference in real time on patients` own language was realized (1,2,3,4,5).

This study was examination by Telepsychiatry and E-consulting (telecommunication technologies with the aim of providing psychiatric services from a distance) of war related posttraumatic stress disorder (PTSD), there is preliminary evidence to support the use of telepsychiatry for PTSD specialty care among combat veterans. The subjects were 120 male psychiatric patients by Telepsychiatry and e-consulting with war-related PTSD by videoconferencing via broadband ADSL and WADSL by 2 Mbps. Posttraumatic stress syndrome-PTSS scale and 20-item Zung selfrating scale was used to assess state measures of symptom severity. Telepsychiatry and e-mental health services could improve the quality and efficiency of mental health services delivery. Furthermore, other clinical needs could be addressed by telehealth using the same infrastructure. This type of service E-consulting include items F43 Reaction to Severe Stress, and Adjustment Disorders (ICD-10-International Statistical Classification of Diseases and Related Health Problems 10th Revision,WHO Geneva, Version for 2006)

F43.0 Acute stress reaction,

F43.1 Post-traumatic stress disorder,

F43.2 Adjustment disorders,

F43.8 Other reactions to severe stress,

F43.9 Reaction to severe stress, unspecified

This category differs from others in that it includes disorders identifiable not only on grounds of symptomatology and course but also on the basis of one or other of two:

1.Causative influences:

• An exceptionally stressful life event (e.g. natural or man-made disaster, combat, serious accident, witnessing the violent death of others, or being the victim of torture, terrorism, rape, or other crime) producing an acute stress reaction

• Significant life change leading to continued unpleasant circumstances that result in an adjustment disorder

2.Stressful event is thought to be the primary and overriding causal factor, and the disorder would not have occurred without its impact. Posttraumatic stress disorder (PTSD) is a delayed and/or protracted response to a stressful event of an exceptionally threatening or catastrophic nature. The three major elements of PTSD include

1. Re-experiencing the trauma through dreams or recurrent and intrusive thoughts ("flashbacks"),

2. Showing emotional numbing such as feeling detached from others,

3. Having symptoms of autonomic hyper arousal such as irritability and exaggerated startle response, insomnia.

Commonly there is fear and avoidance of cues that remind the sufferer of the original trauma. Anxiety and depression are commonly associated with the above symptoms. Excessive use of alcohol and drugs may be a complicating factor. The onset follows the trauma with a latency period, which may range from several weeks to months, but rarely more than half a year. A telepsychiatry service test methods include different scales:Self-reported scales: Beck scale for depression & Zung scale for depression, Interview with physician: Hamilton scale (HAMD) & Posttraumatic stress syndrome scale (PTSS). There can be several potential barriers to the diffusion of telepsychiatry, e consalting and e-mental health. Some of these are concomitant with the adoption of any new technologies and practices in health care, licensure, identify technology

infrastructure need, equipment purchases etc. An activity that is never free. It requires money to begin services for telepsychiatry, money to continue and has as a goal the making of more money (6,7,8,9).

SUBJECTS

Extensive study included 521 subjects-veterans with combat exposure. The target population to continue for this research have been veterans with combat exposure from war affected regions, currently residing in Bosnia-Herzegovina, Serbia, Montenegro or Croatia, between 30 and 60 years of age, with diagnosis of PTSD. The subjects were 180 male psychiatric patients.

METHODS

The subjects were assessed with the use of the PTSS scale and Zung self rating scale. Posttraumatic stress syndrome-PTSS scale and 20-item Zung self rating scale was used to assess state measures of symptom severity. The subjects were 180 male psychiatric patients by Telepsychiatry and e-consulting with warrelated PTSD by videoconferencing via broadband ADSL and WADSL by 2 Mbps.

RESULTS

The symptoms of prolonged PTSS (posttraumatic stress syndrome) with duration between six moths and two years had been founded at 138 (76,7 %) and 42 (23,3 %) of patients had no PTSS:
Symptoms of depression had been found at 148 (82,2 %) patients.
The enduring personality exchange after catastrophic experience (with duration more than two years), had been found at 25 (13,8 %) patients ($P< 0.01$); symptoms of depression had been found at 61 (33,8 %) patients after two years.

DISCUSSION

Many patients with PTSD have different symptoms.
The authors' objective is to analyze component of symptoms in PTSD by PTSS-scale and Zung-scale.
How in this domain still has no scientific papers, so we were unable to compare our results with similar experiences.
Telepsychiatry patients appear to be satisfied with the service, equipment, and setting. All participants reported a high level of acceptance and satisfaction with telepsychiatry. Patients also prefer telepsychiatry to in-person appointments, because travel time, time off from work, and child care is not an issue with telepsychiatry.
Reasults with The enduring personality exchange after catastrophic experience had been found at 25 (13,8%) patients show statisticaly significance ($P< 0.01$).

CONCLUSIONS

Telepsychiatry, as suggested by this review, is a growing field with the potential to deliver high-quality, much needed assistance in a variety of settings to persons in need of mental field of telepsychiatry will keep up with this moving target.
Evolution of PTSD symptoms and continued examination and follow-up by Telepsychiatry service and e-consulting may be important in predicting the eventual development of depressive symptoms and precipitation of F62.0 enduring personality exchange after catastrophic experience in the war related PTSD.
Consequently, Telepsychiatry service and e-consulting it is able to serve not only PTSD but also wide range of other patient population. Telepsychiatry is currently one of the most effective ways to increase access to psychiatric care for individuals living in underserved areas Continued follow-up by Telepsychiatry service will address the evolution of PTSD symptoms in war related PTSD.

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DEPRESIVNI POREMEĆAJI KAO REPERKUSIJA MOBINGA

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Orginalni naučni rad
Sažetak:
Novija istraživanja i naučne studije pokazuju da su radno aktivne osoba u značajnom broju žrtve mobinga sa posljedicama na psihičko zdravlje i sa polimorfnom kliničkom simptomatologijom i smetnjama na porodično socijalnoj ravni funkcionisanja.
CILJ: Osnovni cilj ovog istraživanja, koje je po svojoj strukturi kliničko deskriptivno, bio je utvrditi posljedice mobinga na psihičko stanje.
MATERIJAL I METODE: Ukupan uzorak je 87 ispitanika, dobi od 18-65 godina, oba pola, radno aktivni, različitog socijalnog statusa i kulturoloških navika. Liječeni su radi različitih psihijatrijskih sindroma sa zajedničkim nazivnikom – mobingom, kao etiopatogenetskim faktorom. Od instrumenata istraživanja korišteni su: Upitnik sociodemografskih podataka, Klasični psihijatrijski intervju, Beckova skala za samoprocjenu depresije i Hamiltonova skala za depresiju (HAM-D).U radu su prikazana iskustva, primjena i učinci različitih modela tretmana uz uključivanje psihometrijskih instrumenata, testova i skala. Klijenti-ispitanici su dali svoj pristanak za učešće u istraživanju i tretmanu fenomena mobinga.
REZULTATI: Ustanovljeno je da najveći broj ispitanika s mobingom ispoljava depresivne simptome, potom anksiozne, a iza njih slijede ostali poremećaji.
ZAKLJUČAK: Analiza rezultata istraživanja prema socio-demografskim karakteristikama, vremenskom intervalu izloženosti mobingu, korištenim mjernim instrumentima, dijagnostičkim kategorijama i primjenjenim terapijskim mjerama potvrđuje potrebu daljeg istraživanja i tretmana žrtava mobinga.
Ključne riječi:mobing,depresije.

UVOD

Mobing je specifičan oblik ponašanja na radnom mjestu, kojim jedna osoba ili skupina sistemski psihički zlostavlja i ponižava drugu osobu, s ciljem ugrožavanja njezina ugleda, časti, ljudskog dostojanstva i integriteta, sve do odlaska s radnog mjesta. Sindrom mobinga upozorava na veliko društveno-psihološko značenje radnog mjesta s mogućim negativnim uticajima na psihičko, zdravstveno, socijalno i ekonomsko stanje pojedinca. Zbog nakupljanja negativnih emocija, mobing u izloženih osoba uzrokuje pojavu različitih psihičkih i psihosomatskih smetnji. Termin mobing najčešće se koristi u švedskoj, njemačkoj i talijanskoj literaturi, a u SAD-u su najčešći termini *work abuse* ili *employee abuse*. Buling je termin koji u engleskoj literaturi često označava maltretiranje učenika u školi od vršnjaka ili nastavnika. O bosingu (*bossing*) govorimo onda kad se nadređena osoba neprijateljski odnosi prema radniku na nižem položaju i ošituje to agresivnim i vrijeđajućim ponašanjem. Prema Leymannovom istraživanju, mobingu je izloženo 20% zaposlenika, a 3,5% radnika doživjelo je situacije mobinga koje su trajale 6-15 mjeseci. Leymann je (1996) u svojim istraživanjima došao do zaključka da svaki radnik u svojoj radnoj karijeri ima 25% šanse da bude barem jednom izložen mobingu (1,2,3,4). Prema istraživanjima Leymanna i Gustavssona (1996.), rezultat

mobinga na radnom mjestu u Švedskoj su i neki drugi psihički poremećaji, npr. poremećaj prilagođavanja, te čak 10-20% od ukupnog broja počinjenih samoubistava. Istraživanja Mahler i Jonesa potvrdila su pozitivnu i direktnu povezanost psihosomatskih bolesti, poput astme i multiple kožne preosjetljivosti na hemikalije s izloženošću mobingu na radnom mjestu (5-14). Prema engleskom istraživanju što ga je Staffordshire University proveo za britanski sindikat Unison (Gilioli, A., Gilioli, R.,2000) 75,6% žrtava mobinga ima zdravstvene posljedice, pati od depresije i ima pad samopoštovanja. Istraživanja provedena u SAD-u navode podatak prema kojem je 1 od 4 radnika izvrgnut mobingu. Istraživanje u Velikoj Britaniji je pokazalo da 1 od 8 radnika bio maltretiran u zadnjih 5 godina (15-21).

CILJ je utvrditi depresivne poremećaje kao posljedicu mobinga.

METODOLOGIJA RADA

Uzorak se sastoji od 87 ispitanika s utvrđenim elementima mobinga na radnom mjestu Ispitanici su oba pola (45 žena i 42 muškarca), dobi od 18-65 godina, radno aktivni, različitog socijalnog statusa i obrazovnog nivoa i kulturoloških navika, bez ranije psihijatrijske anamneze. Ovo istraživanje je kliničko, analitičko, deskriptivno i kvantitativno. Instrumenti istraživanja u ispitivanoj grupi su:

1. Upitnik sociodemografskih podataka,
2. Klasični psihijatrijski intervju,
3. Beck-ova skala za samoprocjenu depresije,
4. Hamiltonova skala za depresiju (HAMD),

Upitnik sociodemografskih podataka registruje relevantne sociodemografske karakteristike ispitanika. *Klasični psihijatrijski intervju* podrazumijeva svaki razgovor koji je usmjeren na dobivanje određenih informacija u cilju dijagnostikovanja pojedinih psihičkih poremećaja. Njime se mjeri i procjenjuje valjanost ili validnost i drugih metoda za procjenu psihičkog stanja, kao što su skale za procjenjivanje, upitnici za samoprocjenjivanje itd.

Beck-ova skala za samoprocjenu depresije (BECK), samoprocjenska skala, koja mjeri karakteristične stavove i simptome depresije kod adolescenata i odraslih. Sastoji se od 21 stavke, a svaka stavka se sastoji od graduiranih serija od 4 samoprocjenske izjave, rangirane redom po težini simptoma, od neutralnih do maksimalnih ozbiljnih. Beckov upitnik za depresiju je preporučen za istraživačka i klinička ispitivanja.

Hamiltonova skala za depresiju (HAMD) semistrukturalni klinički intervju za procjenu kvaliteta depresivnog poremećaja. Sadrži 17 varijabli ocijenjenih sa 5 ili 3 položaja stepena. Među varijablama su: depresivnost, suicid, rad i gubitak težine, uvid u stanje (Kaplan I.H. et al., 1996.).

Istraživanje je provedeno na uzorku 87 pacijenata s utvrđenim sindromom mobinga i dijagnostikovanim različitim psihičkim sindromima kao direktnom posljedicom istog. Sa svakim ispitanikom u uzorku pojedinačno je obavljen psihijatrijski intervju. O svakom ispitaniku u uzorku postoji psihijatrijski nalaz i mišljenje, nalaz psihologa, ekspertiza socijalnog radnika, te ostala relevantna medicinska dokumentacija. Raspolažemo i sa heteroanamnestičkim podacima dobivenim od relevantnih ličnosti iz okruženja ispitanika.

Dobijeni rezultati su obrađeni i statistički evaluisani. Statistička obrada rezultata obavljena je primjenom softvera SPSS verzija 16.0 za Windows. U statističkoj evaluaciji korištene su sljedeće statističke metode: Hi-kvadrat test za prikazivanje statističke signifikantnosti, razlika između rezultata na početku i na kraju liječenja ispitivane grupe., te Student T test za prikazivanje statističke značajnosti razlika između aritmetičkih sredina rezultata liječenja na početku i na kraju tretmana ciljne grupe.

Etički aspekti

Za provođenje i izradu ovog istraživanja, a u skladu sa etičkim principima te potrebom da se zaštite prava ispitanika, svim pacijentima koji su učestvovali u ovom istraživanju zagarantovana je potpuna anonimnost i povjerljivost svih podataka. U skladu sa tim dobivene su saglasnosti za dobrovoljni pristanak ispitanika.

REZULTATI:

TABELA 1. STRUKTURA UZORKA PREMA DOBNIM KATEGORIJAMA

	18-25		26-35		36-45		46-55		56-65		Ukupno	
	N	%	N	%	N	%	N	%	N	%	N	%
Muški	9	10,3	10	11,5	7	8,1	11	12,6	5	5,7	42	48,3
Ženski	12	13,8	7	8,1	9	10,3	9	10,4	8	9,1	45	51,7
Ukupno	**21**	24,1	17	19,6	16	18,4	20	23,0	13	14,8	87	100,0

REZULTATI PROCJENE NIVOA DEPRESIVNE SIMPTOMATOLOGIJE KOD ISPITANIKA U TOKU LIJEČENJA

TABELA 2. BECK TEST NA POČETKU TRETMANA

	N	%	Validni %	Kumulativni %
Nema depresije	9	10,3	10,3	10,3
Blaga depresija	15	17,3	17,3	27,6
Umjerena depresija	29	33,3	33,3	60,9
Teška depresija	34	39,1	39,1	100,0
Ukupno	87	100,0	100,0	

Prema skoru na Beckovoj skali na početku tretmana najveći broj ispitanika pokazuje simptome teške depresije 39,1%, nešto manji je procenat umjerene depresije 33,3%, blaga depresija ispoljava se kod 17,3% ispitanika, a bez znakova depresije je 10,3% ispitanika.

TABELA 3. BECK TEST NA KRAJU TRETMANA

	N	%	Validni %	Kumulativni %
Nema depresije	22	25,3	25,3	25,3
Blaga depresija	27	31,1	31,1	56,4
Umjerena depresija	21	24,1	24,1	80,5
Teška depresija	17	19,5	19,5	100,0
Ukupno	87	100,0	100,0	

Isti test na kraju tretmana pokazuje redukciju depresivne simptomatologije i to: teška depresija 19,5%, umjerena depresija 24,1%, blaga depresija 31,1% i bez depresije 25,3% ispitanika.

TABELA 4 HAMD NA POČETKU TRETMANA

	N	%	Validni %	Kumulativni %
Nema depresije	5	5,8	5,8	5,8
Blaga depresija	35	40,2	40,2	46,0
Blaga do umjerena depresija	25	28,7	28,7	74,7
Umjerena do ozbiljna depresija	22	25,3	25,3	100,0
Ukupno	87	100,0	100,0	

Gornji rezultati ukazuju da je po skali HAMD na početku tretmana kod ispitanika najveći procenat onih sa blagom depresijom 40,2%, a najmanji skor je ispitanika bez depresije 5,8%. Blaga do umjerena depresija ispoljava se kod 28,7% ispitanika, a umjerena do ozbiljna kod 25,3% ispitanika.

TABELA 5 HAMD NA KRAJU TRETMANA

	N	%	Validni %	Kumulativni %
Nema depresije	18	20,7	20,7	20,7
Blaga depresija	27	31,0	31,0	51,7
Blaga do umjerena depresija	25	28,7	28,7	80,4
Umjerena do ozbiljna depresija	17	19,6	19,6	100,0
Ukupno	87	100,0	100,0	

Na kraju tretmana po testu HAMD broj ispitanika bez depresivne simptomatologije povećao se na 20,7%, dok se u svim ostalim rubrikama taj procenat smanjuje i iznosi 31,0% kod blage depresije, 19,6% kod umjerene do ozbiljne depresije, dok u rubrici blaga do umjerena depresija, taj skor ostaje isti i iznosi 28,7%.

DISKUSIJA

Rezultati istraživanja potvrđuju da mobing na radnom mjestu ima direktne posljedice na psihičko stanje žrtava te da tretman znatno redukuje posljedice mobinga.

Korišteni mjerni instrumenti za depresivnost na početku istraživanja pokazuju visoki do umjereni skor depresije, kao najizraženijih simptoma, dok je nakon provedenog tretmana taj broj znatno reduciran i sveden u okvire blage do umjerene anksioznosti, odnosno do nestanka simptoma. Po Beck-u na kraju tretmana 25% ispitanika nema znakove depresije po HAMD mjernom instrumentu na kraju tretmana je 19% onih koji ne pokazuju depresivnu simptomatologiju. Simptomi na početku tretmana su sljedeći: depresivnost 97.7%, psihosomatske smetnje 95,4%, anksioznost 89,6%, insomnija 82,8%, paranoidnost 71,3%, u nešto manjim procentima se javljaju: gubitak apetita i pretjerano jedenje, te razdražljivost, agitiranost i pretjerano spavanje. Na kraju tretmana evidentan je značajan pad u ispoljavanju navedene

simptomatologije, što je vidljivo i u ukupnom procentu, ali i u obliku ispoljavanja, pa je na kraju tretmana najveći procenat lakših i umjerenih oblika, a najmanji teških. Slična je situacija i po pitanju kliničkih entiteta, tj. sindroma konstatovanih prema MKB 10 i na početku tretmana konstatuju se sljedeći sindromi: teška depresivna epizoda bez psihotičnih simptoma 16,1%, srednje teška depresivna epizoda 13,8%, akutna reakcija na stres 8,0%, teška depresivna epizoda sa psihotičnim simptomima 6,9%, a najmanje procentualno su izražene pretežno prisilne misli i distimija po 1,1%. Rezultati potvrđuju da se kod svih ispitanika, bez obzira na pol, starost, školsku spremu, radni staž, bračni status i težinu problematike najoptimalnijom pokazala kombinovana terapija koja se sastojala iz individualne i suportivne psihoterapije kombinovane sa odgovarajućom medikamentoznom, koja je bila prilagođena svakom ispitaniku ponaosob.

ZAKLJUČAK

Istraživanje govori u prilog činjenici da je mobing postao društveni fenomen koji se širi velikom brzinom uzrokujući štetu, ne samo pojedincu izloženom zlostavljanju, nego i njegovoj radnoj sredini, porodici, te društvu u cjelini. Nadamo se da će naučna analiza ove problematike, ali ne samo iz ugla medicinske struke, već putem jednog multidisciplinarnog pristupa, koji će u sebi, pored medicinskog sadržavati svakako i sociološki, pravni i ekonomski aspekt, a u budućnosti dati željene rezultate, te razriješiti i pojedinca i društvo ovog ogromnog tereta.

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DEPRESSIO: CONSEQUENCES OF VICTIMS OF MOBBING

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Original scientific article

SUMMARY

Recent research and scientific studies show that people are active in a significant number of victims of mobbing with the consequences on mental health and with polymorphic clinical symptoms and disorders in the family social level of functioning. OBJECTIVE: The main objective of this research, which is structurally clinical descriptive, was to determine the effects of mobbing on the psychological condition and treatment options. MATERIALS AND METHODS: The total sample consisted of 87 patients, aged 18-65, both sexes, active, with different social status and cultural habits.Were treated for various psychiatric syndromes with a common denominator-mobbing, as etiopathogenetic factor. From the research instruments were used: socio-demographic data questionnaire, classic psychiatric interview, Beck Depression Scale self-assessment, Hamilton Rating Scale for Depression (HAM-D). The paper presents the experience, the implementation and effects of different model of treatment with the inclusion of psychometric instruments, tests and scales. Client-respondents gave their consent to participate in the study and treatment of the phenomenon of mobbing. RESULTS: It was found that most patients with mobing exhibit symptoms of depression, then anxiety, and behind them followed by other disorders. CONCLUSION: Analysis of the results of the socio-demographic characteristics, time interval of exposure to mobbing, used measuring instruments, diagnostic categories and applied therapeutic measures confirm the need for further research and treatment of victims of mobbing.

Key words:mobing,depression.

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THE PREVALENCE OF METABOLIC SYNDROME IN WAR VETERANS WITH A CHRONIC POSTTRAUMATIC STRESS DISORDER

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Original scientific article

SUMMARY
BACKGROUND: The Posttraumatic Stress Disorder (PTSD) and metabolic syndrome represent a growing number of public health problems in post-war countries. There is more and more evidence about a relationship between PTSD and metabolic syndrome as well as the research that indicates a high prevalence of metabolic syndrome in people suffering from PTSD. Understanding the relationship between PTSD and metabolic syndrome are important clinical and theoretical issues.
OBJECTIVES: The objective of this study was to examine the prevalence of metabolic syndrome in war veterans with a chronic PTSD.
METHODS: Metabolic syndrome was investigated in 100 male war veterans with combat PTSD and in 79 males who needed medical attention in a dispensary of family medicine.
RESULTS: According to NCEP: ATP III metabolic syndrome was found in 35 % of war veterans with PTSD. Metabolic syndrome was identified more frequently in PTSD patients with co-morbid depression (63.6%) and in war veterans with PTSD of high intensity (66.7%) .
CONCLUSION: Metablic syndrome was found in more than 1/3 patients suffering from a chronic PTSD. The frequency was higher if the clinical presentation of a chronic PTSD was heavier and if PTSD was co-morbid with a depressive disorder.
Key words: war veterans, PTSD, metabolic syndrome, prevalence.

INTRODUCTION

The war that occurred in Bosnia and Herzegovina (B&H) has unfortunately given us the opportunity to better understand developments and events related to war stress and stress conditioned mental disorders, which during the war happened to many civilians, soldiers, and especially to more traumatized war veterans (1).

There are no valid epidemiological studies in B&H that could more accurately identify all the important aspects of the war trauma and its consequences. However, on the basis of research that was conducted in different time periods and on different population samples whose results have been published thus far, it is evident that the consequences of war trauma are numerous and very complex (2).

The Posttraumatic stress disorder (PTSD) is a diagnostic entity, which often occurs as a result of the catastrophic war trauma. It may appear in an isolated form and is often associated with other psychiatric disorders such as: depressive disorders, anxiety disorders, psychosomatic disorders, psychoactive substance abuse and alcoholism. Unlike the war veterans without PTSD, the war veterans suffering from PTSD have a higher risk of developing: dermatological, gastrointestinal,

ophthalmologic, endocrinological and cardiovascular diseases (3,4,5).

Metabolic syndrome is also known as dysmetabolic syndrome, insulin resistance syndrome, Reavenov syndrome, CHAOS, a new world syndrome, civilization syndrome, or syndrome X "deadly quartet", the combination of metabolic, anthropometrical and hemodynamic disorder that involves a disruption of regulating body weight, metabolism carbon hydrates and lipids (low lipoproteins with large density, HDL and increased triglycerides), as well as disturbance of blood pressure regulation (6,7,8).

Although the criteria for diagnosing metabolic syndrome has been ambiguous, incomplete and criticized by some authors (7,8,9), medical interest for researching metabolic syndrome is increasing.

There are more and more indicators that point out to a correlation between mental disorders (schizophrenia, PTSD, depression, affective bipolar disorder, personality disorder) and metabolic syndrome as well as research that shows a high prevalence of metabolic syndrome associated with mental disorders including PTSD.

POSTTRAUMATIC STRESS DISORDER

In the professional literature, but also in literary works (Ksenofont, Herodotus, Homer, Shakespeare, Krleza, Marinkovic, B&H folk songs and stories, etc.), there is a series describing psychological states that have resulted from the war stress that also match today's description of PTSD clinical images (10).

Although PTSD has been mentioned in the past couple of decades, it was almost unknown to our experts in public 15 years ago. The World Health Organization (WHO) introduced PTSD only in its Tenth revision of the International Classification of Diseases (ICD-10) and related health problems, which we have used since the beginning of 1995. PTSD, along with a panic dysfunction, agoraphobia, specific and social phobias, obsessive-compulsive disorder and generalized anxiety disorder, falls into a large group of so called anxiety disorders. The basic characteristic of this disorder is the appearance of pathological anxiety and development of characteristic symptoms, which happen in response to stressful events or a situation of an extremely threatening or catastrophic nature.

In the general population, PTSD ranges from 1-10% and in a sample of the Vietnam War veterans it ranges between 7-67% (11). On the territory of B&H there is a lack of systemized epidemiology research on PTSD. A number of individual research studies on different patterns and indirect indicators, shows that virtually the entire population of B&H during the war experienced psycho-physical traumas and there are a lot of people suffering from PTSD. The presence of PTSD in B&H, due to insufficient research, can be analyzed only on a partial sample. Numerous individual research studies showed a high percentage of the war-conditioned chronic PTSD presence, ranging from 33.3% to 68.3% (12,13,14,15,16,17).

There is a large number of studies on traumatic stress, however, the sufficient knowledge about theoretical comprehension of complex forms of mutual activities between the nature of stressful events, personality features and the process of coping as well as psycho-biological mechanisms, which have been affected by trauma and cultural response of those who have been the victims still does not exist (18).

Long-term or chronic anxiety can have a significant role in pathogenesis of metabolic syndrome. Allostatis is a permanent process of adaptation through which an individual passes while facing increased and demanding challenges (19).

Allostatic load indicates cumulative physiological natural attrition that comes from repeated efforts to adjust to a stress cause in a given time. It reflects cumulative, negative effects of adaptation to different

psycho-social challenges and the poor environment, which are imposed by a genetic predisposition of an individual, as well as the development and learned factors related to behavior and lifestyle, such as physical activity, nutrition, alcohol consumption and smoking (20).

METABOLIC SYNDROME

Metabolic syndrome is a set of metabolic abnormalities, which is associated with increased risk of a cardiovascular disease. These abnormalities include a disorder in glucose metabolism, abdominal obesity, disturbance of lipid concentration in plasma, especially low levels of thick lipoprotein cholesterol in plasma (HDL-C), high triglyceride levels in plasma and increased blood pressure. Although each of these components of metabolic syndrome in itself represents a risk factor for a cardiovascular disease and mortality when existing together, the increased risk is at least an additional element (21).

Due to the importance of metabolic syndrome as a risk indicator for a cardiovascular disease, the Expert Panel for detection, evaluation and treatment of high blood cholesterol in adults (Panel for the Treatment of Adults of a National Educational Program for Cholesterol, NCEP / ATP III) and WHO announced definitions of metabolic syndrome, which should be used to diagnose it. According to the definition of NCEP/ATP III, the diagnosis of metabolic syndrome is made when a person has at least three components of metabolic syndrome that are specified in the definition. WHO's definition is similar and the difference is mainly in that it requires a diagnosis of diabetes, disturbed regulation of glucose or insulin resistance with two or more other components for diagnosing metabolic syndrome. Despite the differences in a definition, the definition of NCEP / ATP III and WHO identifies the same person in 85% of cases (22).

WHO defines metabolic syndrome by the existence of insulin resistance with any of the two additional criteria such as:

- Elevated blood pressure ≥ 140/90 mm Hg or antihypertensive drug therapy;

- Triglyceride concentration in plasma ≥ 1.7 mmol/L;

- Concentration of HDL< 0.9 for men;< 1.0 mmol/L for women;

- Body Mass Index (BMI) > 30 and/or the ratio of waist/hip > 0.9 for men and, and > 0.85 for women;

- Albumin concentration in urine > 20 μgram/min, the ratio of albumin/cretinine > 30mg/g.

According to the American organization NCEP/ATP III, metabolic syndrome is defined by the existence of at least three or more of the following criteria:

- Starving glucose levels ≥ 6.1 mmol/L;

- Serum triglyceride ≥ 1.7 mmol/L;

- Serum HDL-c < 1.04 (m), 1.30 mmol (w);

- Blood pressure ≥ 130/85 mm Hg;

- Waist circumference ≥102 cm (m) or 88 cm (w).

According to WHO data in Europe, 7-36% of men and 5-22% of women aged between 40 and 45 years meets the criteria of being diagnosed with metabolic syndrome. According to some data, 24% of adult Americans have metabolic syndrome (23).

Etiopathogenesis in patients with mental disorders is complex and insufficiently explained, but it is known that the interaction of stress, hypercortisolemia disorder and the improper functioning of the immune system all contribute to the development of metabolic syndrome in people suffering from PTSD and other mental disorders. Most often, pathophysiological explanation of metabolic syndrome is a resistance to insulin, although the effect of insulin in vivo is not always

associated with the presence of the syndrome (24).

Due to an increased activity of HPA-axis, there is an increased ejaculation of cortisol, which affects visceral accumulation of a body fat. According to most authors, this increase in the quantity of abdominal fat tissue is a fundamental pathophysiological change, which through the development of insulin resistance leads to the development of other components of metabolic syndrome (25,26,27).

Metabolic insulin resistance is caused by changes in a body, which in an early period begins as a compensatory protective mechanism, and in a later period turns into an expressive pathological process. The basis of the process is made up of hyperenergetic state in the organism whether it is an endogenic hyperenergetic state (the amount of energy from food intake is equal but exercise is reduced) or egzogenic hyperenergetic condition where the amount of energy from food intake is increased while at the same time and very often the physical activity is reduced (28).

Metabolic syndrome usually occurs due to an unhealthy lifestyle, lack of exercise, increased calorie consumption and increased exposure to stress as well as the inability to deal with stressful situations successfully. The risk factors include: genetics, stress, lifestyle, the internal capacities of defense and emotional hypersensitivity. Hereditary genetic causes have not yet been precisely defined. Stress is considered as one of the causes because it disturbs the hormonal balance and it increases the tendency of fat tissue accumulation in the abdominal area and other diseases associated with it.

PTSD AND METABOLIC SYNDROME: RELATINOSHIP

Research that deals with the connection between PTSD and metabolic syndrome is in its early stages. It is evident that more research should be conducted because the previous work in this field indicates possible existence of a causal connection between these two disorders (29,30,31,32).

The group of authors from the University of Washington in Seattle (USA) announced in 2002 the results of a research related to a chronic stress correlation, metabolic syndrome and coronary disease. Dr. Raikkonen and associates explored the two-way type connection and concluded that people with metabolic syndrome more often suffer from depression, uncontrolled rage and tension. On the other hand, people with mental disorders in a form of depression, uncontrolled rage and tension often do not develop metabolic syndrome (33,34).

The complexity of the problems of perception about metabolic syndrome and PTSD includes different influential factors through various variables: constitutional factors, developmental conditions, premorbid situation, the maturity level, emotional stability, intelligence and interaction in etiopathogenesis. Frequent comorbid diagnoses with metabolic syndrome include: mood disorders (depression and anxiety states, the use of psycho active substances. One or two of psychiatric diseases is usually developed in 38% of people suffering from metabolic syndrome; most often depressive or anxious states. The number of obese people in the world, as well those suffering from metabolic syndrome is growing daily. Around the world, this situation has been declared as the metabolic syndrome pandemic. While the number of people with metabolic syndrome is increasing worldwide, there are also more and more patients suffering from various complications of the metabolic syndrome, which has made this a major epidemiological issue in a contemporary preventive and therapeutic medicine (28).

RESULTS AND DISCUSSION

We recruited 100 male veterans with combat related PTSD, who were consecutively admitted to the psychiatric department in the Clinical Hospital Mostar. The control study

group consisted of 79 males who needed a medical attention in a dispensary of family medicine in Mostar. PTSD was diagnosed using DSM-IV criteria (APA) by an experienced psychiatrist. The clinical psychologist applied the Harvard Trauma Questionnaire based on DSM-IV criteria to evaluate post-traumatic stress reaction (28). The diagnosis of metabolic syndrome and its components was based on ATP III diagnostic criteria (Adult Treatment Panel III).

This paper presented the preliminary results of the metabolic syndrome frequency in war veterans suffering from a chronic PTSD in the area of B&H. The final results will be published after the completion of the research.

Our preliminary research shows a high prevalence of metabolic syndrome in respondents with a chronic PTSD (35%) as well as the control group (41.8%). Among examined groups, the statistically significant difference was not found. Metabolic syndrome was identified more frequently in PTSD patients with co-morbid depression (63.6%) and in war veterans with PTSD of high intensity (66.7%). When compared to the control group, it represents a statistically significant difference ($p< 0001$).

Trief et al. (35) found that the prevalence of metabolic syndrome was present in 20-30% in the middle and older age people in the general population. Violani et al. (36) and Babić et al. (37) reported a significantly greater prevalence of metabolic syndrome in police officers and war veterans with severe PTSD symptoms. In recent years, professional literature has shown more evidence related to high frequency of metabolic disorders in psychiatric patients. Somatic diseases such as obesity, hyperlipidemia, hypertension and diabetes mellitus II have lately been treated as very important comorbid states in patients suffering from more difficult mental disorders. It is not entirely clear whether these disorders are a part of the pathological process itself and mental disorders inflicted by increased stress and inflammatory process, genetic vulnerability or environmental factors, or the consequences of treating the disease. The latest research in the field of psychiatry has begun to examine this situation in the context of metabolic syndrome. People suffering from metabolic syndrome generally have an increased mortality, especially the mortality related to cardiovascular diseases (28,33,34,38,).

In recent years, there has been a great interest in researching correlation between somatic diseases and chronic PTSD as well as the linkages between traumatic experiences and metabolic syndrome (39). Numerous studies show that traumatic stress may have a negative impact on somatic health (40), and other research shows that those suffering from a chronic PTSD when compared to the general population have a higher number of cardiovascular diseases and diabetes (41,42). As of today, the available data links cognitive damage, abdominal obesity, reduction of bone density, type II diabetes and hypertension in depressive patients with hypercortisolemia, while currently there is no clear evidence about the connection between depression and hyperlipidemia (43,44,45,46).

There has not been a lot of research that deals with a relationship between metabolic syndrome and chronic PTSD. Jakovljević et al. (5) found that those suffering from PTSD had metabolic syndrome presence of 31.9%, while those suffering from a higher PTSD intensity had 51.9% metabolic syndrome presence. Although the research on correlation between PTSD and metabolic syndrome is still in its early stages, previous research has supported a thesis that PTSD is multisystematic disorder which represents a developmental phase in the pathogenesis of many mental disorders and somatic diseases including diabetes and CVD (5,47). Obtained data are complementary with the current results of our research, which indicates people suffering from PTSD have a higher prevalence of metabolic syndrome than those from the general population.

CONCLUSION

Metabolic syndrome was diagnosed in more than one third of people suffering from a chronic PTSD. The frequency was higher if the clinical presentation of a chronic PTSD was heavier and if the PTSD was comorbid with a depressive disorder.

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