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Aleksitimija i njezini potencijalni prediktori dobiveni na uzorku oboljelih od anksioznih i psihosomatskih poremećaja

/ Alexithymia and Its Potential Predictors Obtained from a Sample of Patients with Anxiety and Psychosomatic Disorders

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Aleksitimija je konstrukt s nedvojbenim učinkom na zdravlje i nošenje s bolešću i procesom liječenja. Istraživanje o toj bolesti bilo je provedeno na klinikama za psihijatriju i internu medicinu KBC-a Rijeka na uzorku od 100 ispitanika podijeljenih u dvije skupine: oboljelih od anksioznih i oboljelih od psihosomatskih poremećaja. Glavni cilj ovog rada bio je ispitati potencijalne prediktore aleksitimije pri čemu su u razmatranje uzeti sljedeći parametri: lokus kontrole zdravlja, stupnjevi anksioznosti i depresivnosti, te pojedina sociodemografska obilježja. Specifični se ciljevi odnose na ispitivanje povezanosti stupnja izraženosti aleksitimije sa stupnjem izraženosti svakog pojedinog prediktora. Ispitan je i stupanj aktivacije simpatikusa u ispitivanim skupinama. Korišten je sljedeći instrumentarij: Sociodemografska anketa, Torontska ljestvica aleksitimije - 26, Hopkins - 25 ljestvica simptoma i Upitnik za ispitivanje percipiranog izvora kontrole zdravlja. Za potrebe mjerenja tlaka koristio se manualni tlakomjer i stetoskop, srčana frekvencija mjerila se pulsnim oksimetrom, a frekvencija disanja neposrednim opažanjem istraživača. Sukladno ciljevima, ustanovljeno je da postoji statistički značajna pozitivna povezanost aleksitimije, vanjskog lokusa kontrole zdravlja, anksioznosti i depresivnosti. Pojedinci s višim stupnjem aleksitimije pokazali su očuvan autonomni emocionalni odgovor. Utvrđeno je da su niža stručna sprema, viši stupnjevi depresivnosti i anksioznosti te prisutnost izraženijeg vanjskog lokusa kontrole zdravlja objektivni prediktori aleksitimije.

/ Alexithymia is a construct that has an undeniable effect on health and on coping with a disease and the treatment process. A study of this condition was conducted at the Departments of Psychiatry and Internal Medicine at the Clinical Hospital Center Rijeka, on a sample of 100 respondents divided into two groups: patients with anxiety disorders and patients with psychosomatic disorders. The main objective of this paper was to examine the potential predictors of alexithymia, taking into consideration the following parameters: the health locus of control, degrees of anxiety and depression, and individual sociodemographic characteristics. The specific goals refer to examining the association between the degree of alexithymia expression and the degree of expression of each individual predictor. The degree of sympathetic nervous system activation in the test groups was also examined. The following instruments were used:

the Sociodemographic Survey, the Toronto Alexithymia Scale-26, the Hopkins Symptom Checklist-25 and the Perceived Source of Health Control Questionnaire. A manual blood pressure monitor and stethoscope were used for blood pressure measurement, heart rate was measured with a pulse oximeter, while respiratory rate was measured by direct observation of the researchers. Consistent with the objectives, a statistically significant positive association was found between alexithymia, the external health locus of control, anxiety and depression. Individuals with a higher degree of alexithymia displayed a preserved autonomic emotional response. It was determined that lower education, higher degrees of depression and anxiety, and the presence of a more pronounced external health locus of control are objective indicators of alexithymia.

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UVOD

Suočavanje s kroničnom bolešću i njeno prihvaćanje psihički je veoma zahtjevno. Kako bi u tome bio uspješan, potrebno je da pojedinac posjeduje sposobnost prepoznavanja i regulacije vlastitih emocija. Osobe sa značajkama aleksitimije imaju problema upravo s potonjim.

U ovome će se radu istraživati aleksitimija u odnosu na lokus kontrole zdravlja i druge potencijalne psihološke odrednice. Istraživanje će biti provedeno na uzorku bolesnika s određenim psihičkim poremećajima iz anksioznog spektra (generalizirani anksiozni poremećaj - GAP, panični poremećaj, mješoviti anksiozno-depresivni poremećaj) i određenim psihosomatskim bolestima (esencijalna arterijska hipertenzija, ulcerozni kolitis).

Pojam aleksitimija prvi je upotrijebio Peter Emanuel Sifneos 1973. godine povezujući ga sa psihosomatskim bolesnicima (1). Aleksitimija je obilježena deficitom u prepoznavanju,

INTRODUCTION

Coping with a chronic illness and accepting the illness are mentally very challenging. In order to succeed in doing so, an individual needs to have the ability to recognize and regulate their own emotions. The latter represents a problem for individuals with signs of alexithymia.

This paper will focus on alexithymia and its relation to the health locus of control and other potential psychological determinants. The study will be conducted on a sample of patients displaying particular mental disorders from the anxiety spectrum (generalized anxiety disorder - GAD, panic disorder, mixed anxiety-depressive disorder) and particular psychosomatic disorders (essential arterial hypertension, ulcerative colitis).

The term alexithymia was first used in 1973 by Peter Emanuel Sifneos, who associated it with psychosomatic patients (1). Alexithymia is characterized by a deficit in identifying, processing and expressing emotions, and distinguishing emotions from bodily sensations, with a cognitive deficit in the form of a concrete, logical, ex-

procesuiranju i izražavanju emocija te razlikovanju emocija od tjelesnih osjeta uz kognitivni deficit u obliku konkretnog, logičnog, eksternaliziranog procesa mišljenja s odsutnošću fantazija i simbolike (1-4). Aleksitimija se dijeli na primarnu (koja se kao osobina ličnosti formira u djetinjstvu posljedično infantilnoj traumi ili genetskoj sklonosti) i sekundarnu (posljedica je oštećenja mozga ili pokušaja prilagodbe na stresne događaje) (5). Aleksitimija nije zaseban klinički entitet u okviru važećih dijagnostičkih priručnika (6,7). Stupanj njene ekspresije varira u različitih osoba, a mjerni instrument koji se najviše koristi je *Toronto Alexithymia Scale* (TAS-20) koji mjeri tri dimenzije: teškoće u identifikaciji i opisivanju osjećaja te eksternalizaciju mišljenja (8,9). Napravljena je i njegova verzija na hrvatskom jeziku uz validaciju u hrvatskoj populaciji – TAS-26 (10). Prevalencija aleksitimije u općoj populaciji kreće se oko 10 % (11). Podatci iz literature ukazuju na oprečna istraživanja s obzirom na spol i dob (12-14). Etiologija aleksitimije je heterogena i još uvijek nedovoljno istražena. Dosadašnja istraživanja ukazuju na abnormalnosti u građi i funkciji određenih anatomskih struktura mozga uključenih u elaboraciju i objedinjavanje misaono-afektivnih iskustava (15-17), genetsku predispoziciju (polimorfizmi za neurotropni faktor BDNF, dopaminski receptor i enzime njegova metabolizma te serotoninski receptor i transporter) (18-20) te na utjecaj psiholoških čimbenika. Za liječenje aleksitimije korisne su različite vrste psihoterapije (suportivna psihoterapija, kognitivno-biheviоralna psihoterapija, individualna/grupna psihoterapija) te autogeni trening i *biofeedback* (22,23).

Lokus kontrole je pojam u okviru teorije socijalnog učenja, a jedna je dimenzija ličnosti, odnosno koncept povezan s percepcijom osobne odgovornosti pojedinca za različite ishode u životu (24,25). Može biti unutrašnji (osoba vjeruje da su ishodi povezani s njezi-

ternalized thinking process with no fantasies and symbolism (1-4). Alexithymia is classified into primary (which as a personality trait is formed in childhood as a result of infantile trauma or a genetic predisposition) and secondary (a consequence of brain trauma or attempts to cope with stressful events) (5). Alexithymia is not a separate clinical entity in terms of the current diagnostic manuals (6, 7). The degree of its expression varies in different individuals, and the instrument most widely used for its measurement is the Toronto Alexithymia Scale (TAS-20) which measures three dimensions: difficulty identifying and describing feelings, and externally oriented thinking (8, 9). A Croatian version has also been created with validation in the Croatian population – TAS-26 (10). The prevalence of alexithymia in the general population is around 10% (11). Literature data point to conflicting studies with regard to gender and age (12-14). The etiology of alexithymia is heterogeneous and still insufficiently researched. Previous studies point to abnormalities in the structure and function of certain anatomical structures of the brain involved in the elaboration and unification of thought-affective experiences (15-17), genetic predisposition (polymorphisms for neurotropic factor BDNF, dopamine receptor and its metabolism enzymes, as well as serotonin receptor and transporter) (18-20), and the effect of psychological factors. Various types of psychotherapy are useful in the treatment of alexithymia (supportive psychotherapy, cognitive-behavioral psychotherapy, individual/group psychotherapy), as well as autogenic training and biofeedback (22, 23).

The locus of control is a concept within the social learning theory, and constitutes one of the personality dimensions, i.e. it is a concept associated with the perception of an individual's personal responsibility for different outcomes in life (24, 25). It can be internal (the individual believes that the outcomes are associated with their behavior and decisions), external (the individual believes that the outcomes depend on chance, fate or significant others) or combined (different locus in different spheres of life) (24, 26). In our country, the

nim ponašanjem i odlukama), vanjski (osoba vjeruje da ishodi ovise o slučajnosti, sudbini ili važnim drugima) ili kombinirani (različit lokus u različitim sferama života) (24,26). Za potrebe mjerenja zdravstvenog lokusa kod nas se uglavnom koristi Upitnik za ispitivanje percipiranog izvora kontrole zdravlja ZLK-90 (27). Lokus kontrole zdravlja nedvojbeno utječe na obrasce zdravstvenih ponašanja koja se reflektiraju u očuvanju zdravlja ili pojavi bolesti, tijeku i ishodima liječenja. Većina istraživanja polazi od pretpostavke da je unutrašnji lokus kontrole povezan s poželjnim, a vanjski lokus kontrole s negativnim ishodima (29,30). Postoji niz studija koje su istraživale odnos aleksitimije i lokusa kontrole u općoj (31-33) i kliničkoj populaciji (34-36). Wise i suradnici (37) smatraju da je naizgled značajna pozitivna korelacija između aleksimitimije i vanjskog lokusa kontrole zdravlja posredovana neuroticizmom, dok druge studije odnos tih dvaju fenomena ne dovode u pitanje (38).

Iz recentne literature razvidni su postojeći doprinosi razumijevanju povezanosti aleksitimije i anksioznih poremećaja (38-42). Značajke aleksitimije su nađene u 43,4 % anksioznih i 51,5 % depresivnih bolesnika (41). Aleksitimija se povezuje s težim simptomima, češćim komorbiditetima i funkcionalnim oštećenjima u okviru anksioznih poremećaja te u osoba s depresivnim simptomima (43,44).

Osobe sa značajkama aleksitimije zbog narušene interoceptivne svjesnosti naginju somatosenzornoj amplifikaciji pa uobičajene fizičke simptome emocionalne uzbuđenosti mogu tumačiti kao znak tjelesne bolesti i učestalo se medicinski pregledavati (46). Brojna istraživanja povezuju aleksitimiju i psihosomatske bolesti (arterijsku hipertenziju i upalne bolesti crijeva) (47-50). Učestaliju pojavu aleksitimije u osoba oboljelih od esencijalne arterijske hipertenzije podržali su rezultati niza istraživanja (46-51). Međutim, neki autori ukazuju na

Perceived Source of Health Control Questionnaire ZLK-90 is predominantly used for the purpose of measuring the health locus (27). The health locus of control undoubtedly affects the health-related behavioral patterns reflected in the maintenance of health or the occurrence of diseases, as well as the course and outcomes of treatment. Most of the research is based on the assumption that the internal locus of control is associated with desirable outcomes, while the external locus of control is associated with negative outcomes (29, 30). Numerous studies have researched the connection between alexithymia and the locus of control in the general (31-33) and clinical populations (34-36). Wise et al. (37) believe that the seemingly significant positive correlation between alexithymia and the external health locus of control is mediated by neuroticism, while other studies do not dispute the correlation between these two phenomena (38).

Recent literature clearly presents the existing contributions to the understanding of the connection between alexithymia and anxiety disorders (38-42). Characteristics of alexithymia were observed in 43.4% of patients with anxiety and 51.5% of patients with depression (41). Alexithymia is associated with more severe symptoms, more frequent comorbidities and functional impairments within anxiety disorders, and is observed in persons with depressive symptoms (43, 44).

Due to impaired interoceptive awareness, individuals displaying signs of alexithymia are prone to somatosensory amplification, therefore they may interpret common physical symptoms of emotional excitement as a sign of physical illness and may undergo frequent medical examinations (46). A connection between alexithymia and psychosomatic disorders (arterial hypertension and inflammatory bowel diseases) has been recorded in numerous studies (47-50). The results of a series of studies have confirmed that there is a higher incidence of alexithymia in patients suffering from essential arterial hypertension (46-51). Some authors, however, refer to a weak, almost non-existent association between alexithymia and blood pressure (52).

slabu, gotovo nikakvu povezanost aleksitimije i krvnog tlaka (52).

Češća pojavnost aleksitimije (79-81) i njezin negativan utjecaj na tijek, ishod bolesti i kvalitetu života bolesnika (54,55) utvrđeni su u osoba oboljelih od ulceroznog kolitisa. No, neka istraživanja nisu našla značajnu vezu aleksitimije s dužinom trajanja i težinom kliničke slike te bolesti (56,57). Prevalencija anksioznosti i depresije je visoka u osoba oboljelih od ulceroznog kolitisa (58). Pregledom recentne literature razvidne su brojne oprečne studije o uzročno-posljedičnoj vezi anksioznosti/depresije i ulceroznog kolitisa (59,60). No, ne nalaze se istraživanja koja anksioznost i depresiju promatraju u kontekstu osoba sa značajkama aleksitimije koje ujedno boluju od ulceroznog kolitisa.

CILJEVI ISTRAŽIVANJA

Glavni cilj istraživanja bio je ispitati objektivne prediktore aleksitimije pri čemu su u razmatranje uzeti sljedeći parametri: lokus kontrole zdravlja, stupnjevi anksioznosti i depresivnosti te određena sociodemografska obilježja poput dobi, spola, stručne spreme i postojanja partnerske emotivne veze.

Prvi istraživački problem bio je ispitati odnose pojedinih prediktora aleksitimije sa stupnjem njezine izraženosti u pojedinim skupinama ispitanika. Sukladno tome, u skupini ispitanika s anksioznim (G1 skupina) i psihosomatskim (G2 skupina) poremećajima je ispitivana povezanost stupnja aleksitimije sa stupnjem anksioznosti, povezanost stupnja aleksitimije sa stupnjem depresivnosti te povezanost stupnja aleksitimije sa stupnjem izraženosti unutarnjeg ili vanjskog lokusa kontrole zdravlja. Drugi istraživački problem bio je ispitati stupanj aktivacije simpatikusa u obje ispitivane skupine (G1 i G2) mjerenjem pokazatelja kao što su arterijski tlak, frekvencija pulsa i frekvencija disanja.

A higher incidence of alexithymia (79-81) and its negative effects on the course and outcome of a disease, as well as the patient's quality of life (54, 55), have been observed in individuals suffering from ulcerative colitis. On the other hand, there are studies that have not found a significant correlation between alexithymia and the duration and severity of the clinical picture of this disease (56, 57). The prevalence of anxiety and depression is high in individuals suffering from ulcerative colitis (58). A review of recent literature reveals numerous conflicting studies examining the cause and effect relationship between anxiety/depression and ulcerative colitis (59, 60). However, no studies have been found that view anxiety and depression within the context of individuals displaying signs of alexithymia who are also suffering from ulcerative colitis.

AIMS

The main aim of this study was to examine the objective predictors of alexithymia, taking into consideration the following parameters: the health locus of control, degrees of anxiety and depression, and certain sociodemographic characteristics such as age, gender, professional qualifications and the existence of an emotional connection between partners.

The first research problem was to examine the relationships between individual predictors of alexithymia and the degree of its expression in certain groups of respondents. Accordingly, in the groups of respondents with anxiety (group G1) and psychosomatic (group G2) disorders, we examined the connection between the degree of alexithymia and the degree of anxiety, the connection between the degree of alexithymia and the degree of depression, as well as the connection between the degree of alexithymia and the degree of expression of the internal or external health locus of control. Another research problem was to examine the degree of sympathetic nervous system activation in both test groups (G1 and G2) by

HIPOTEZE ISTRAŽIVANJA

Temeljem kliničkih opažanja postavljene su sljedeće hipoteze:

1. Kod ispitanika s anksioznim poremećajima (G1 skupina) očekuje se niži stupanj aleksitimije u odnosu na ispitanike sa psihosomatskim poremećajima (G2 skupina).
2. Kod ispitanika s anksioznim poremećajima (G1 skupina) očekuje se unutrašnji lokus kontrole zdravlja, dok se kod ispitanika sa psihosomatskim poremećajima (G2 skupina) očekuje vanjski lokus kontrole zdravlja.
3. Kod ispitanika sa psihosomatskim poremećajima (G2 skupina) očekuje se jača aktivacija simpatikusa (porast arterijskog krvnog tlaka, frekvencije pulsa i frekvencije disanja) u odnosu na ispitanike s anksioznim poremećajima (G1 skupina).
4. Očekuje se da će se kao pozitivni prediktori aleksitimije pokazati vanjski lokus kontrole zdravlja, viši stupanj depresivnosti i viši stupanj anksioznosti, dok se kao negativni prediktori aleksitimije očekuju unutrašnji lokus kontrole zdravlja, niži stupanj depresivnosti i niži stupanj anksioznosti.

ISPITANICI

U istraživanje je bilo uključeno 100 ispitanika koji su bili razdijeljeni u dvije skupine. G1 skupinu sačinjavali su ispitanici s anksioznim poremećajima (*N*=60), a G2 skupinu ispitanici sa psihosomatskim poremećajima (*N*=40).

Kriteriji uključivanja za obje skupine bili su životna dob od 20 do 65 godina, muškarci i žene te osobe koje mogu dati informirani pristanak. Kriteriji uključivanja za skupinu G1 i G2 razlikovali su se ovisno o postavljenoj dijagnozi prema klasifikaciji MKB 10: kriterij uključivanja za G1 skupinu bila je postavljena dijagnoza iz skupine anksioznih poremećaja: panični poremećaj, generalizirani anksiozni poremećaj,

measuring the indicators such as arterial blood pressure, pulse rate and respiratory rate.

STUDY HYPOTHESES

Based on clinical observations, the following hypotheses were put forward:

1. Respondents suffering from anxiety disorders (group G1) are expected to have a lower degree of alexithymia compared to respondents suffering from psychosomatic disorders (group G2).
2. Respondents suffering from anxiety disorders (group G1) are expected to have an internal health locus of control, whereas respondents suffering from psychosomatic disorders (group G2) are expected to have an external health locus of control.
3. Respondents suffering from psychosomatic disorders (group G2) are expected to experience a stronger sympathetic nervous system activation (increase in arterial blood pressure, pulse rate and respiratory rate) compared to respondents suffering from anxiety disorders (group G1).
4. An external health locus of control, a higher degree of depression and a higher degree of anxiety are expected to be positive predictors of alexithymia, while an internal health locus of control, a lower degree of depression and a lower degree of anxiety are expected to be negative predictors of alexithymia.

RESPONDENTS

A total of 100 respondents took part in the study, and they were divided into two groups. Group G1 included respondents suffering from anxiety disorders (*N*=60), while group G2 included respondents suffering from psychosomatic disorders (*N*=40).

Inclusion criteria for both groups included age between 20 and 65 years, both men or women, and individuals who are able to give informed consent. Inclusion criteria for groups G1 and G2 dif-

mješoviti anksiozni i depresivni poremećaj, dok je kriterij uključivanja za G2 skupinu bila jedna od dviju bolesti: esencijalna hipertenzija ili ulcerozni kolitis.

Kriteriji isključivanja za obje skupine bili su: osobe koje boluju od teških psihičkih poremećaja (psihoze, organski sumanuti poremećaj), dementne osobe, osobe koje su teško tjelesno kompromitirane u trenutku provođenja istraživanja (prema bodovnom sustavu Karnofsky).

METODE

Istraživanje se provodilo u Kliničkom bolničkom centru Rijeka (KBC Rijeka), na Klinici za psihijatriju i Klinici za internu medicinu (lokaliteti Rijeka i Sušak), u razdoblju od listopada 2019. do ožujka 2020. godine kada je obustavljeno zbog pandemije virusa SARS-CoV-2. Podatke je prikupljao istraživač osobno i to primjenom klasične forme samoprocjenskih anketnih upitnika (papira i olovke) te mjerenjem tlaka, frekvencije pulsa i disanja.

Ispitanici koji su kontaktirani u okviru navedenih klinika bili su hospitalizirani ili su bili uključeni u dnevno-bolničke programe te ambulantne preglede.

Sudjelovanje u istraživanju bilo je isključivo dobrovoljno i provodilo se nakon svih pojašnjenja i potpisivanja Informiranog pristanka. Sudionici su bili informirani da u svakom trenutku mogu odustati od sudjelovanja u istraživanju.

Prije nego bi započeo s popunjavanjem upitnika, svakom je ispitaniku izmjeren tlak (manualnim tlakomjerom i stetoskopom) te frekvencija pulsa (pulsnim oksimetrom) i disanja (neposrednim opažanjem). Isti taj postupak ponovio bi se i nakon završetka popunjavanja upitnika. Maksimalno predviđeno vrijeme za susret s jednim ispitanikom bilo je sat i trideset minuta.

Istraživanje se provodilo u skladu s Osnovama dobre kliničke prakse. Osiguralo se poštivanje

fered depending on the set diagnosis according to the MKB-10 classification: the inclusion criterion for group G1 consisted of a diagnosis from the group of anxiety disorders: panic disorder, generalized anxiety disorder and mixed anxiety-depressive disorder, while the inclusion criterion for the G2 group consisted of one of two diseases: essential hypertension or ulcerative colitis.

The exclusion criteria for both groups were the following: individuals suffering from severe mental disorders (psychoses, organic delusional disorder), persons with dementia, and persons who were severely physically compromised at the time when the study was conducted (according to the Karnofsky Performance Scale).

METHODS

The study was conducted at the Clinical Hospital Center Rijeka (CHC Rijeka), the Departments of Psychiatry and Internal Medicine (Rijeka and Sušak locations), in the period from October 2019 to March 2020, when it was suspended due to the SARS-CoV-2 pandemic. The data were personally collected by the researcher, using the classic form of self-assessment questionnaires (paper and pencil) and measuring the blood pressure, pulse rate and respiratory rate.

The respondents who were contacted within the above-mentioned departments were hospitalized or included in day-hospital programs and outpatient examinations.

Participation in the study was entirely voluntary, it was conducted after providing thorough explanations and upon signing the Informed Consent document. The participants were informed that they could withdraw from participating in the study at any moment.

The blood pressure (using a manual blood pressure monitor and stethoscope), pulse rate (using a pulse oximeter) and respiratory rate (by means of direct observation) of each respondent were measured before filling in the questionnaire. The same procedure was repeated after the question-

temeljnih bio/etičkih načela autonomnosti, neškodljivosti, dobročinstva i pravednosti, a sve sukladno Nürnberškom kodeksu i najnovijoj reviziji Helsinške deklaracije. Istraživanje je odobrilo Etičko povjerenstvo KBC-a Rijeka. Troškove istraživanja pokriveni su vlastitim sredstvima istraživača.

INSTRUMENTARIJ

U svrhu istraživanja korišten je sljedeći instrumentarij: Sociodemografska anketa, Torontska ljestvica aleksitimije - 26, Ljestvica simptoma Hopkins - 25 i Upitnik za ispitivanje percipiranog izvora kontrole zdravlja. Za potrebe mjerenja tlaka koristio se manualni tlakomjer i stetoskop, srčana frekvencija mjerila se pulsnim oksimetrom, a frekvencija disanja neposrednim opažanjem istraživača.

Opći upitnik naziva „Sociodemografska anketa"; konstruiran za potrebe ovoga rada, služio je prikupljanju podataka o dobi, spolu, bračnom/partnerskom statusu, obrazovanju i materijalnom statusu.

Torontska ljestvica aleksitimije (*Toronto alexithymia scale,* tj. TAS-26) je upitnik kojim se mjeri postojanje aleksitimije u pojedinaca (10). TAS-26 se sastoji od 26 stavki svrstanih u četiri facete (F): F1 - poteškoće u identifikaciji i razlikovanju emocija od tjelesnih osjeta, F2 - poteškoće opisivanja osjećaja, F3 - osiromašeno sanjarenje i F4 – eksternalizirano razmišljanje (14). Ispitanik odgovara zaokruživanjem brojeva u rasponu od 1 do 5, što znači: 1 „uopće se ne slažem", 2 „djelomično se ne slažem", 3 „niti se ne slažem, niti se slažem", 4 „umjereno se slažem"; i 5 „jako se slažem" (10). Rezultat se dobije tako što se svakom odgovoru ispitanika dodijeli određeni broj bodova, nakon čega se svi bodovi zbrajaju. Maksimalna vrijednost koju je moguće postići na testu iznosi 130, a minimalna 26. Vrijednosti od 74 i više karakteristične su za sobe sa značajkama aleksitimije, dok vri-

naire had been filled in. The maximum allotted time for meeting one respondent was an hour and thirty minutes.

The study was conducted in accordance with the basics of good clinical practice. Compliance with the basic bio/ethical principles of autonomy, non-maleficence, beneficence and justice was ensured, all in accordance with the Nuremberg Code and the latest revision of the Declaration of Helsinki. The study was approved by the Ethics Committee of the CHC Rijeka. The costs of the study were covered from the researcher's own funds.

INSTRUMENTS

The following instruments were used for research purposes: the Sociodemographic Survey, the Toronto Alexithymia Scale-26, the Hopkins Symptom Checklist-25 and the Perceived Source of Health Control Questionnaire. A manual blood pressure monitor and stethoscope were used for blood pressure measurement, heart rate was measured with a pulse oximeter, while respiratory rate was measured by direct observation of the researcher.

A general questionnaire entitled "Sociodemographic Survey", constructed for the purposes of this study, was used for the collection of data regarding the age, gender, marital/partnership status, education and material status.

The Toronto Alexithymia Scale (TAS-26) is a questionnaire used to measure the existence of alexithymia in individuals (10). TAS-26 consists of 26 items grouped into four facets (F): F1 - difficulty to identify and distinguish between feelings and bodily sensations, F2 - difficulty to describe feelings, F3 - reduced daydreaming, and F4 - externally oriented thinking (14). The respondents replied to each item by circling numbers ranging from 1 to 5, with the following meanings: 1 "strongly disagree", 2 "moderately disagree", 3 "neither disagree nor agree", 4 "moderately agree", and 5 "strongly agree" (10). The result was obtained by assigning a specific amount of points to each response provided by the respondent, after which all the points were added up. The maximum value achievable in

jednosti od 62 i niže ukazuju na osobe bez tih značajki (20). Osim zbirno, rezultati se mogu rastaviti i promatrati u okviru triju podljestvica, tj. čestica: teškoće u prepoznavanju emocija, teškoće u njihovoj verbalizaciji i eksternalizirano mišljenje (61). U ovom istraživanju korišten je samo zbirni rezultat dobiven upitnikom.

Ljestvica simptoma Hopkins 25 je instrument koji se koristi u procjeni simptoma anksioznosti i depresije (62). Sastoji se od 25 izjavnih rečenica: prvi dio sadrži 10 rečenica koje ispituju simptome anksioznosti, a drugi dio 15 rečenica za simptome depresije (62). Za svaku izjavnu rečenicu ispitanik zaokružuje jedan od četiri moguća odgovora („uopće ne", „malo"; prilično"; ili „jako") kojim označuje koliko se pojedina tvrdnja odnosi na njega. Potom se odgovori ocjenjuju bodovima od 1 do 4 (1 bod za odgovor „uopće ne", 2 „malo", 3 „ prilično" i 4 boda za „jako") i izračunavaju dvije ocjene: ukupni rezultat je prosjek svih 25 stavki, dok je ocjena anksioznosti i depresije prosjek od 15 stavki anksioznosti, tj. depresije (62).

Upitnik za ispitivanje percipiranog izvora kontrole zdravlja (ZLK-90-2) služi za ispitivanje stavova o vlastitom zdravlju i čimbenicima koji na njega djeluju (63). Upitnik se sastoji od 4 ljestvice i 32 pitanja (po 8 u jednoj ljestvici) na koja ispitanici odgovaraju označavanjem jednog od četiri ponuđena odgovora („u potpunosti vjerujem", „uglavnom vjerujem", „uglavnom ne vjerujem", „uopće ne vjerujem") koji se vrednuju bodovima od 1 do 4 (63). Tri ljestvice ispituju eksternalni/vanjski lokus kontrole, tj. vjerovanja ispitanika o pojedinim vanjskim faktorima koji potencijalno mogu djelovati na zdravlje: 1. utjecaj važnih osoba kao što su zdravstveno osoblje, obitelj, prijatelji, mediji, 2. utjecaj slučajnosti, sudbine, više sile ili Boga i 3. utjecaj vanjskih čimbenika i situacija (63). Četvrta ljestvica ispituje internalni/unutrašnji lokus kontrole, tj. vjerovanja o vlastitim čimbenicima o kojima može ovisiti zdravlje (npr. stavovi spram zdravstveno odgo-

the test was 130 points, while the minimum value was 26. Values of 74 and above are characteristic of individuals with features of alexithymia, while values of 62 and below indicate individuals without such features (20). In addition to the aggregate, the results can be broken down into three subscales, i.e. items: difficulty to identify feelings, difficulty to describe feelings, and externally oriented thinking (61). Only the aggregate results obtained via the questionnaire were used in this study.

The Hopkins Symptom Checklist-25 is an instrument used for the evaluation of anxiety and depression symptoms (62). It includes 25 statements: the first part consists of 10 statements assessing anxiety symptoms, while the second part consists of 15 statements relating to depressive symptoms (62). The respondents circled one of the four possible answers relating to each statement ("not at all," "a little," "quite a bit," or "extremely"), indicating the extent to which a particular statement applied to them. The responses were then rated with points from 1 to 4 (1 point for "not at all", 2 points for "a little", 3 points for "quite a bit" and 4 points for "extremely") and two scores were calculated: the total score was the average of all 25 items, while the anxiety and depression score was the average of the 15 anxiety, i.e. depression items (62).

The Perceived Source of Health Control Questionnaire (ZLK-90-2) is used for assessing the attitudes towards one's own health and the factors influencing it (63). The questionnaire consists of four scales and 32 questions (eight in each scale) and the respondents had to select one of the four offered answers ("I completely believe, "I mostly believe", "I mostly do not believe", "I do not believe at all") which were scored with points from 1 to 4 (63). Three scales assess the external locus of control, i.e. the extent to which the respondents believe certain external factors could potentially affect their health: 1. the influence of important individuals such as healthcare professionals, family, friends, the media, 2. the influence of chance, fate, a higher power or God, and 3. the influence of external factors and situations (63). The fourth scale assesses the internal locus of control, i.e. the beliefs regarding one's own factors which could

vornog ponašanja, sistematskih pregleda, redovitih kontrola liječnika, prehrane i sl.) (63). Svaka se ljestvica boduje posebno, a rezultat se interpretira kao izraženost unutrašnjih (jedna ljestvica) i vanjskih faktora (zbroj preostale tri ljestvice) (63). Ispitanici zaokružuju jedan od predloženih odgovora koji reflektira njihov stupanj vjerovanja u pojedinu tvrdnju. Sukladno odgovoru dodjeljuje se od jedan do četiri boda, a rezultat se izračunava zasebno za sve ljestvice kao zbroj bodova (63). Teorijski raspon rezultata za internalnu, tj. I-ljestvicu iznosi od 8 do 32, a za eksternalne ljestvice zbirno, tj. E-ljestvicu od 24 do 96.

STATISTIČKE METODE

Sakupljeni podaci su statistički obrađeni pomoću statističkog programa Statistica (IBM). Pri analizi skupina ispitanika korištene su osnovne deskriptivne metode te su prikazane aritmetička sredina (X), standardna devijacija (SD) ili broj (N) i postotak (%) pojedinih odgovora ovisno o mjernoj ljestvici. Normalnosti raspodjele podataka za pojedinu skupinu provjerene su Kolmogorov-Smirnovljevim testom, te je dobivena normalna raspodjela za sve varijable osim za ljestvicu depresivnosti u skupini G2. Za ispitivanje razlika između skupina korišten je t-test ili hi-kvadrat ovisno o mjernoj ljestvici. Za varijablu depresivnost je uz t-test primijenjen i Mann Whitneyev test. Međutim oba testa pokazuju podjednaku značajnost, te su prikazane vrijednosti za t-test. T-test za zavisne uzorke primijenjen je za usporedbu rezultata na podljestvicama (unutrašnjeg i vanjskog) lokusa kontrole unutar svake skupine (G1 i G2) zasebno kako bi se utvrdilo koji se lokus kontrole više koristi u pojedinoj skupini te je li razlika rezultata na promatrane dvije ljestvice unutar jedne te iste skupine ispitanika statistički značajna. Za ispitivanje povezanosti između varijabli korišten je Pearsonov koeficijent korelacije, odnosno Spearmanov koeficijent za

influence health (e.g. attitudes towards responsible health behavior, physical examinations, regular doctor check-ups, nutrition etc.) (63). The points from each scale were counted separately, and the result was interpreted as the expression of internal (one scale) and external factors (sum of the remaining three scales) (63). The respondents circled one of the suggested answers, which reflected the degree to which they believed in a particular statement. In line with the answer, one to four points were assigned, and the results were calculated separately for all scales as the sum of points (63). The theoretical range of results for the internal, i.e. I-scale was between 8 and 32, while for the external scales it was aggregate, i.e. for the E-scale it was between 24 and 96.

STATISTICAL METHODS

The obtained data were statistically processed using the statistical program Statistica (IBM). Basic descriptive methods were used for the analysis of respondent groups, and the arithmetic mean (X), standard deviation (SD) or number (N) and percentage (%) of individual answers depending on the measuring scale, were presented. The normality of data distribution for each group was checked using the Kolmogorov–Smirnov test, and normal distribution was obtained for all variables except for the depression scale in group G2. The t-test or the chi-square test were used to examine the differences between the groups, depending on the measuring scale. In addition to the t-test, the Mann-Whitney test was also used for the depression variable. Both tests, however, showed equal significance and the t-test values were presented. The t-test for dependent samples was applied for the purpose of comparing the results on the (internal and external) locus of control subscales within each group (G1 and G2) separately, in order to determine which locus of control is used more in which group and whether the difference in results in the two observed scales within one and the same group of respondents is statistically significant. The Pearson correlation coefficient was used for the purpose of assessing the correlation between

ispitivanje povezanosti sa spolom, partnerskim statusom i stručnom spremom.

Za ispitivanje doprinosa prediktornih varijabli u objašnjenju varijance aleksitimije učinjena je hijerarhijska regresijska analiza pri čemu je ukupni rezultat na ljestvici TAS kriterijska varijabla. Kako bi kontrolirali kovarijantne varijable, u prvom koraku/modelu uključene su sociodemografske varijable (dob, spol, stručna sprema, partnerski status), u drugom koraku/modelu uvrštene su varijable zdravstvenog lokusa kontrole, a u trećem koraku/modelu depresivnost i anksioznost. Razina značajnosti određena je na 5 %.

Tekst rada obrađen je u programu Word, Microsoft Office 2019.

the variables, while the Spearman coefficient was used for assessing the correlation with gender, partnership status and professional qualifications.

Hierarchical regression analysis was carried out for the purpose of examining the contribution of predictor variables in the explanation of alexithymia variance, whereby the total score on the TAS scale was a criterion variable. In order to control the covariate variables, the sociodemographic variables (age, gender, professional qualifications, partnership status) were included in the first step/model, the health locus of control variables were included in the second step/model, and depression and anxiety were included in the third step/model. The materiality level was set to 5%.

The text of the paper was processed in the program Word, Microsoft Office 2019.

REZULTATI ISTRAŽIVANJA

Sociodemografska obilježja ispitanika

U istraživanju je ukupno sudjelovalo 100 ispitanika prosječne dobi od 49,2 godine od čega najmlađi ispitanik ima 21, a najstariji 65 godina. U ukupnom uzorku 62 ih je ženskog spola, većina ima srednjoškolsko obrazovanje (64 %) i većina je udana/oženjena (59 %). Njih 60 boluje od nekog od anksioznih, a 40 od nekog od psihosomatskih poremećaja. Sociodemografska obilježja za ukupan uzorak te prema ispitnoj skupini prikazana su u tablici 1.

Prema podatcima prikazanima u tablici, vidljivo je da se skupine ispitanika statistički značajno razlikuju s obzirom na dob i s obzirom na bračni status. Ispitanici koji boluju od anksioznih poremećaja u prosjeku imaju 46,5 godina i šest su godina mlađi od ispitanika koji boluju od psihosomatskih poremećaja koji u prosjeku imaju 53,2 godine. Ispitanici koji boluju od psihosomatskih poremećaja statistički su značajno češće u braku ili izvanbračnoj zajednici u odnosu na oboljele od anksioznih poremećaja.

STUDY RESULTS

Sociodemographic characteristics of respondents

A total of 100 respondents with the average age of 49.2 years took part in the study, wherein the youngest respondent was 21 and the oldest was 65 years old. In the total sample, 62 respondents were female, most had secondary school education (64%) and the majority were married (59%). A total of 60 respondents suffered from an anxiety disorder, while 40 suffered from a psychosomatic disorder. The sociodemographic characteristics of the total sample, as well as according to the test groups, are presented in Table 1.

It can be observed from the data presented in the table that the groups of respondents significantly differ in terms of age and marital status. The average age of respondents suffering from anxiety disorders was 46.5, and they were six years younger than the respondents suffering from psychosomatic disorders, who were on average 53.2 years old. The respondents suffering from psychosomatic disorders were statistically significantly more likely to be married or in an extramarital relationship, compared to those suffering from anxiety disorders.

TABLICA 1. Sociodemografske karakteristike cjelokupnog uzorka te usporedba između skupina (G1 = skupina s anksioznim poremećajem, G2 = skupina sa psihosomatskim poremećajem)
TABLE 1. Sociodemographic characteristics of the total sample and comparison between groups (G1 = group with anxiety disorder, G2 = group with psychosomatic disorder)

	Ukupno / Total *n*=100	G1 *n*=60	G2 *n*=40		
	X (SD)	*X (SD)*	*X (SD)*	*t*	*p*
Dob / Age	49,2 (12,34)	46,5 (11,54)	53,2 (12,52)	-2,762	0,007
	N (%)	N (%)	N (%)	χ^2	P
SPOL / GENDER					
– Muški / Male	38 (38 %)	21 (55,3 %)	17 (44,7 %)	8,152	0,004
– Ženski / Female	62 (62 %)	38 (61,3 %)	24 (38,7 %)		
STRUČNA SPREMA / PROFESSIONAL QUALIFICATIONS					
– Niža stručna sprema / Lower professional qualification	10 (10 %)	7 (11,7 %)	3 (7,5 %)	4,651	0,098
– Srednja stručna sprema / Secondary professional qualification	64 (64 %)	42 (70 %)	22 (55 %)		
– Viša i visoka stručna sprema / Higher professional qualification or university degree	26 (26 %)	11 (18,3 %)	15 (37,5 %)		
BRAČNI STATUS / MARITAL STATUS					
– U braku/izvanbračnoj zajednici / Married/in an extramarital relationship	63 (63 %)	30 (50 %)	33 (82,5 %)		
– Neudana/neoženjen / Single	14 (14 %)	12 (20 %)	2 (5 %)		
– Razveden / Divorced	14 (14 %)	12 (20 %)	2 (5 %)	12,113	0,017
– Udovac / Widowed	5 (5 %)	3 (5 %)	2 (5 %)		
– Ostalo / Other	4 (4 %)	3 (5 %)	1 (2,5%)		

Izvor: izrada autora / Source: Author's calculation

Usporedba ispitanih skupina obzirom na stupanj aleksitimije, anksioznosti, depresivnosti i lokus kontrole zdravlja

Skupine su uspoređene u odnosu na stupanj aleksitimije, anksioznosti, depresivnosti, te u odnosu na zdravstveni lokus kontrole. Prosječne vrijednosti za ispitne skupine G1 i G2, te njihova usporedba prikazani su u tablici 2.

Ispitanici koji boluju od anksioznih poremećaja imaju statistički značajno veći stupanj aleksitimije, anksioznosti i depresivnosti u odnosu na ispitanike sa psihosomatskim poremećajima. Oboljeli od anksioznih i od psihosomatskih bolesti ne razlikuju se značajno u unutrašnjem zdravstvenom lokusu kontrole, međutim razlika je značajna u vanjskom zdravstvenom lokusu kontrole. Naime, oboljeli od

Comparison of test groups with regard to the degree of alexithymia, anxiety, depression and health locus of control

The groups were compared based on the degree of alexithymia, anxiety, depression and the health locus of control. The average values of test groups G1 and G2, as well as their comparison, are presented in Table 2.

Respondents suffering from anxiety disorders have a statistically significantly higher degree of alexithymia, anxiety and depression compared to the respondents with psychosomatic disorders. There are no significant differences between those suffering from anxiety and psychosomatic disorders in terms of the internal health locus of control, however, the difference in their external health locus of control is significant. Namely,

TABLICA 2. Usporedba ispitanih skupina s obzirom na stupanj aleksitimije, anksioznosti, depresivnosti i na zdravstveni lokus kontrole (G1 = skupina s anksioznim poremećajem, G2 = skupina sa psihosomatskim poremećajem)
TABLE 2. Comparison of the test groups according to the degree of alexithymia, anxiety, depression and health locus of control (G1 = group with anxiety disorder, G2 = group with psychosomatic disorder)

	G1 *n*=60		G2 *n*=40			
	raspon / range	*X (SD)*	raspon / range	*X (SD)*	t	p
ALEKSITIMIJA / ALEXITHYMIA	46-101	71,3 (13,05)	34-83	62,7 (10,72)	3,420	0,001
ANKSIOZNOST / ANXIETY	1-3,9	2,1 (0,66)	1-3,7	1,67 (0,56)	3,634	<0,001
DEPRESIVNOST / DEPRESSION	1-3,53	2,1 (0,66)	1-3,3	1,7 (0,58)	3,205	0,002
LOKUS KONTROLE ZDRAVLJA / HEALTH LOCUS OF CONTROL						
Unutrašnji / Internal	18-27	20,9 (1,59)	18-24	21 (1,42)	-0,241	0,810
Vanjski / External	45-67	56,2 (4,68)	49-71	58,8 (4,52)	-2,784	0,006

Izvor: izrada autora / Source: Author's calculation

psihosomatskih poremećaja postižu veći rezultat na ljestvici vanjskog zdravstvenog lokusa kontrole.

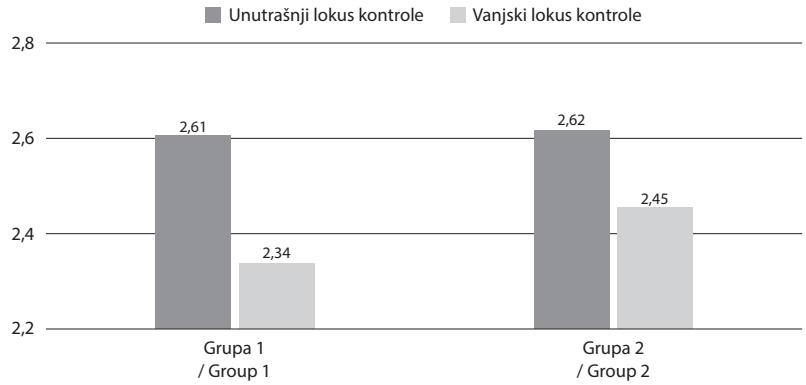
S ciljem otkrivanja predominantnog lokusa kontrole unutar ispitanih skupina istražen je odnos između prosječnih vrijednosti dobivenih na podljestvicama unutrašnjeg i vanjskog lokusa kontrole (slika 1).

Za potrebe usporedbe, ukupan skor dobiven na svakoj podljestvici podijeljen je s brojem čestica na podljestvici. Maksimalni mogući rezultat na svakoj ljestvici je 4. Prosječne vrijednosti prikazane su na slici 1. Ispitanici u obje skupine postižu veći rezultat na ljestvici unutrašnjeg u odnosu na vanjski lokus kontrole. Obje skupine ispitanika imaju prosječan rezultat od 2,60 na unutrašnjem lokusu kontrole. Na ljestvici vanjskog lokusa oboljeli od anksioznih poremećaja postižu nešto niži prosječni rezultat od 2,34 nego oboljeli od psihosomatskih poremećaja s rezultatom 2,45. Premda su razlike unutar skupina u postignutim rezultatima male, one su ujedno i statistički značajne, tj. i ispitanici oboljeli od anksioznih poremećaja (t=7,561, p manji od 0,001) i oboljeli od psihosomatskih poremećaja (t=4,456, p manji od 0,001) postižu značajno veći rezultat na ljestvici internalnog

those suffering from psychosomatic disorders achieve higher scores on the external health locus of control scale.

In order to discover the predominant locus of control within the test groups, the relationship between average values obtained in the internal and external locus of control subscales was explored (Figure 1).

For comparison purposes, the total score obtained in each subscale was divided by the number of items in the subscale. The maximum achievable result in each scale was 4. The average values are presented in Figure 1. Respondents in both groups achieved higher results on the internal locus of control scale compared to the external locus of control. Both groups of respondents achieved an average score of 2.60 in terms of the internal locus of control. As regards the external locus of control scale, those suffering from anxiety disorders achieved a somewhat lower average result of 2.34, compared to those suffering from psychosomatic disorders, who achieved the result of 2.45. Although differences within the groups in terms of the results achieved were slight, they were also statistically relevant, i.e. the respondents suffering from anxiety disorders (t=7.561, p lower than 0.001) and those suffering from psychosomatic disorders (t=4.456, p lower than 0,001) achieved significantly higher scores on



SLIKA 1. Prosječne vrijednosti na podljestvicama unutrašnjeg i vanjskog lokusa kontrole prema ispitanim skupinama (Grupa 1 = skupina s anksioznim poremećajem, Grupa 2 = skupina sa psihosomatskim poremećajem). Izvor: izrada autora
FIGURE 1. Average values on internal and external locus of control subscales per groups tested (Group 1 = group with anxiety disorder, Group 2 = group with psychosomatic disorder). Source: Author's calculation

lokusa kontrole. Kako bismo ispitali postoje li statistički značajne razlike u vrijednostima na podljestvicama unutar skupina primijenjeni su t zavisni t-testovi.

Usporedba ispitanih skupina s obzirom na mjere aktivacije simpatikusa

Kako bi se odgovorilo na drugi istraživački problem, u tablici 3. su prikazane prosječne vrijednosti mjera aktivacije simpatikusa, te usporedba između skupina i mjerenja.

Prema ispitivanim mjerama aktivacije simpatikusa ispitne skupine se statistički značajno razlikuju samo u frekvenciji pulsa na prvom mjerenju (tablica 3). Ispitanici koji boluju od anksioznih poremećaja su u prvom mjerenju imali značajno veću frekvenciju srca u odnosu na oboljele od psihosomatskih poremećaja. Ispitano je postoji li značajna razlika u mjerama aktivacije simpatikusa između dva mjerenja unutar pojedine ispitne skupine. Oboljeli od anksioznih poremećaja su na drugom mjerenju imali značajno manji sistolički tlak i frekvenciju pulsa. Kod oboljelih od psihosomatskih poremećaja nije dobivena značajna razlika u mjerama aktivacije simpatikusa između dva mjerenja.

the internal locus of control scale. In order to examine whether there are statistically significant differences in subscale values within groups, t-dependent t-tests were applied.

Comparison of test groups according to the measures of sympathetic nervous system activation

In order to provide an answer to the second research problem, the average values of measures of sympathetic nervous system activation are presented in Table 3, as well as a comparison of the groups and measurements.

According to the tested measures of sympathetic nervous system activation, there is a statistically significant difference between the test groups only in terms of pulse rate during the first measurement (Table 3). The respondents suffering from anxiety disorders had a considerably higher heart rate during the first measurement, compared to those suffering from psychosomatic disorders. Assessments were made to observe whether there is a significant difference in the measures of sympathetic nervous system activation between the two measurements within an individual test group. Patients suffering from anxiety disorders had a considerably lower systolic blood pressure and pulse rate in the second

TABLICA 3. Usporedba ispitanih skupina izabranim mjerama aktivacije simpatikusa (G1 = skupina s anksioznim poremećajem, G2 = skupina sa psihosomatskim poremećajem)
TABLE 3. Comparison of test groups with according to the selected measures of sympathetic nervous system activation (G1 = group with anxiety disorder, G2 = group with psychosomatic disorder)

	G1 *n*=60	G2 *n*=40		
	X (SD)	*X (SD)*	*t*	*P*
1. MJERENJE / 1st MEASUREMENT				
Sistolički tlak / Systolic blood pressure	127,9 (23,40)	132,3 (21,18)	-0,942	0,349
Dijastolički tlak / Diastolic blood pressure	81,8 (12,45)	80,6 (11,9)	0,471	0,639
Frekvencija pulsa / Pulse rate	79,4 (13,90)	72,85 (12,14)	2,407	0,018
Frekvencija disanja / Respiratory rate	16,60 (4,32)	17,50 (4,83)	-0,973	0,333
2. MJERENJE / 2nd MEASUREMENT				
Sistolički tlak / Systolic blood pressure	124,5 (23,70)	132,4 (19,92)	-1,743	0,084
Dijastolički tlak / Diastolic blood pressure	81,08 (12,25)	82,5 (9,86)	-0,611	0,543
Frekvencija pulsa / Pulse rate	77,6 (12,15)	73,3 (12,58)	-1,321	0,190
Frekvencija disanja / Respiratory rate	16,1 (4,13)	16,7 (4,59)	1,713	0,090
Sistolički tlak* / Systolic blood pressure*	t=2,912; p=0,005	t=-0,090; p=0,929		
Dijastolički tlak* / Diastolic blood pressure*	t=0,970; p=0,336	t=-1,512; p=0,139		
Puls* / Pulse*	t=2,052; p=0,045	t=0,685; p=0,497		
Disanje* / Respiration*	t=1,532; p=0,131	t=1,637; p=0,110		

** t-test između prvog i drugog mjerenja unutar skupine / t-test between the first and second measurement within the group*
Izvor: izrada autora / Source: Author's calculation

Korelacije ispitivanih varijabli

U tablici 4. prikazani su koeficijenti korelacija između ispitivanih varijabli na ukupnom uzorku. Aleksitimija je statistički značajno pozitivno povezana s anksioznosti i depresijom te negativno povezana s dobi i stručnom spremom. Ispitanici koji imaju veći rezultat na ljestvici aleksitimije ujedno imaju i veći rezultat na ljestici anksioznosti i depresivnosti te su mlađe životne dobi i niže stručne spreme. Unutrašnji lokus zdravstvene kontrole je u statistički značajnoj negativnoj korelaciji s partnerskim statusom, odnosno ispitanici koji imaju veći stupanj unutrašnjeg lokusa kontrole ujedno su vjerojatnije u vezi. Vanjski lokus kontrole statistički je značajno povezan s depresivnošću, dobi i stručnom spremom. Ispitanici s većim vanjskim lokusom kontrole su vjerojatnije manje depresivni, mlađe životne dobi i niže stručne spreme. Anksioznost je u statistički značajnoj pozitivnoj

measurement. No significant difference was observed among the patients suffering from psychosomatic disorders in terms of measures of sympathetic nervous system activation between the two measurements.

Correlations of the variables examined

The correlation coefficients of the variables examined on the total sample are presented in Table 4. Alexithymia has a statistically significant positive correlation with anxiety and depression, and a negative correlation with age and professional qualifications. The respondents who achieved higher scores on the alexithymia scale also achieved higher scores on the anxiety and depression scale, and were younger in age and had lower professional qualifications. There was a statistically significant negative correlation between the internal health locus of control and the partnership

TABLICA 4. Koeficijenti korelacije ispitivanih varijabli
TABLE 4. Correlation coefficients of the variables examined

		2	3	4	5	6	7	8	9
1	Aleksitimija / Alexithymia	-,06	,13	,56**	,52**	-,20*	-,21*	-,12	,03
2	ZLK unutrašnji / HLC internal		,04	-,06	,06	,19	-,10	-,01	-,23*
3	ZLK vanjski / HLC external			-,19	-,25*	-,27**	-,23*	,15	-,13
4	Anksioznost / Anxiety				,72**	-,23*	-,02	-,19	-,04
5	Depresija / Depression					-,21*	,08	-,23*	,13
6	Dob / Age						-,20*	,02	-,36**
7	Stručna sprema / Professional qualifications							-,01	,01
8	Spol / Gender								,08
9	Partnerska veza / Partnership status								

**p<0,05; **p<0,01*
Izvor: izrada autora / Source: Author's calculation

korelaciji s depresijom i negativnoj korelaciji s dobi. Dobiveni rezultati u prilog su činjenici da ispitanici s visokim rezultatom na ljestici anksioznosti postižu i visok rezultat na ljestici depresivnosti, te da oni koji postižu visok rezultat na ljestvici anksioznosti su ujedno i mlađi ispitanici. Depresivnost je statistički značajno negativno povezana s dobi. Mlađi ispitanici češće postižu viši rezultat na ljestvici depresivnosti. Dob ispitanika je statistički značajno povezana sa stručnom spremom i partnerskim statusom. Stariji ispitanici vjerojatnije imaju nižu stručnu spremu i rjeđe su u vezi.

Hijerarhijska regresijska analiza za razinu aleksitimije

Kako bimo ispitali objektivne pokazatelje aleksitimije, izračunata je hijerarhijska regresijska analiza na ukupnom uzorku (tablica 5). Putem hijerarhijske regresijske analize kontroliran je učinak dobi i spola po kojoj se ispitanici dviju skupina statistički značajno razlikuju. U prvom koraku su uvrštena sociodemografska obilježja kao što su dob, spol, stručna sprema i partnerska veza koja je određena kao „u vezi"; ili „nije u vezi". U drugom koraku uvršteni su unutrašnji i vanjski lokus kontrole, te u posljednjem trećem koraku anksioznost i depresivnost. Prvi model koji uključuje sociodemografska obilježja objaš-

status, that is, the respondents who had a higher degree of internal locus of control were also more likely to be involved in a relationship. There was a statistically significant correlation between the external locus of control and depression, age and professional qualifications. Respondents with a higher external locus of control were more likely to be less depressed, younger and with lower professional qualifications. Anxiety had a statistically significant positive correlation with depression, and a negative correlation with age. The obtained results supported the fact that respondents with high scores on the anxiety scale also achieved high scores on the depression scale, while those who achieved high scores on the anxiety scale were also of a younger age. There was a statistically significant negative correlation between depression and age. Younger respondents more often achieved higher scores on the depression scale. The age of respondents had a statistically significant correlation with professional qualifications and partnership status. Older respondents were more likely to have lower professional qualifications and were less likely to be in a relationship.

Hierarchical regression analysis for determining alexithymia levels

A hierarchical regression analysis was performed on the total sample (Table 5) in order to examine the objective indicators of alexithymia. Hierarchi-

TABLICA 5. Hijerarhijska regresijska analiza za razinu aleksitimije na ukupnom uzorku
TABLE 5. Hierarchical regression analysis for alexithymia levels in the total sample

	1. KORAK / 1st STEP		2. KORAK / 2nd STEP		3. KORAK / 3rd STEP	
	B	B	B	β	B	B
Dob / Age	-0,26	-0,25*	-0,29	-0,28*	-0,17	-0,17
Spol / Gender	-2,9	-0,11*	-3,57	-0,14	-0,02	-0,00
Stručna sprema / Professional qualifications	-3,14	-0,22*	-2,72	-0,19	-3,12	-0,21**
Partnerska veza / Partnership status	-1,51	-,06	-1,49	-0,06	-2,27	-0,09
ZLK unutrašnji / HLC internal			-0,44	-0,05	-0,77	-0,09
ZLK vanjski / HLC external			0,44	0,16	0,69	0,26**
Depresivnost / Depression					7,50	0,39**
Anksioznost / Anxiety					5,74	0,30*
R^2	0,10	df1=4	0,13	df1=2	0,47	df1=2
F	2,57*	df2=94	2,24	df2=92	10,02**	df2=90
ΔR^2			0,03		0,34	
ΔF			1,52		29,22	

Izvor: izrada autora / Source: Author's calculation

njava 10 % varijance aleksitimije pri čemu je statistički značajan utjecaj dobi i stručne spreme. Drugi model objašnjava 13 % varijance aleksitimije pri čemu inkrementalna vrijednost (ΔR^2 =0,03) ukazuje da dodavanjem (unutrašnjeg i vanjskog) lokusa kontrole nije postignut značajniji doprinos dodatnom objašnjenju varijance aleksitimije u odnosu na prvi korak. Tek je u trećem koraku dodavanjem dodatnih varijabli anksioznosti i depresivnosti postignut značajniji doprinos njezinom objašnjenju (ΔR^2 =0,34), tj. objašnjeno je ukupno 47 % varijance pri čemu statistički značajan individualan doprinos objašnjenju aleksitimije imaju stručna sprema, anksioznost, depresivnost i vanjski lokus kontrole zdravlja. Dakle, ispitanici koji imaju nižu stručnu spremu, viši stupanj anksioznosti i depresivnosti te veći rezultat na vanjskom lokusu kontrole zdravlja imaju i veći stupanj aleksitimije.

DISKUSIJA

Rezultati istraživanja pokazali su da skupina ispitanika s anksioznim poremećajima (G1) u prosjeku postiže viši rezultat na ljestvici alek-

cal regression analysis was performed for the purpose of controlling the effects of age and gender, the aspects in which the two groups had significant differences. Sociodemographic characteristics such as age, gender, professional qualifications and partnership status, which was expressed as "in a relationship" or "not in a relationship", were included in the first step. The internal and external locus of control were included in the second step, while anxiety and depression were included in the third and final step. The first model, which includes sociodemographic characteristics, explains 10% of alexithymia variance, whereby age and professional qualifications have a statistically significant influence. The second model explains 13% of alexithymia variance, whereby the incremental value (ΔR^2 =0.03) indicates that by adding a locus of control (internal and external) no significant contribution was made which would provide an additional explanation of alexithymia variance when compared to the first step. A more significant contribution to its explanation (ΔR^2 =0.34) was achieved only in the third step by adding the additional variables of anxiety and depression, i.e. a total of 47% of variance was explained and professional qualifications, anxiety, depression and external locus of control had a statistically significant contribution to the explanation

sitimije TAS-26 nego li (G2) skupina ispitanika sa psihosomatskim poremećajima. Sukladno tumačenju rezultata ljestvice TAS-26 (20), jasno je da se ispitanici obje ispitivane skupine u prosjeku nalaze u graničnoj kategoriji iskazujući samo neke osobine aleksitimije, time da G1 skupina postiže statistički značajno više vrijednosti nego G2 skupina. Takvi rezultati nisu u skladu s prvom postavljenom hipotezom koja je pretpostavila upravo suprotno, tj. veći stupanj aleksitimije u skupini G2. Dosadašnja istraživanja već su potvrdila da među oboljelima od anksioznih poremećaja postoji velik udio onih koji ujedno iskazuju značajke aleksitimije (41,27) te da postoji mogućnost sekundarnog javljanja aleksitimije kao posljedice tih poremećaja (28). Ispitanici s anksioznim poremećajima su u istraživanju Yildrim i suradnika (41), te Onur i suradnika (64) na ljestvici TAS-20 također u prosjeku postizali granične rezultate. No, suprotno očekivanju, viši stupanj aleksitimije dobiven je u skupini bolesnika s anksioznim poremećajima. Pretragom recentne literature nije nađen niti jedan rad koji istražuje i objašnjava postojanje predmetnih razlika. Međutim, posrednim zaključivanjem moguće je doći do potencijalnog odgovora, koji se krije u odnosu između aleksitimije te anksioznosti i depresivnosti. Upravo se u okviru prvog istraživačkog problema teži ispitati povezanost aleksitimije sa stupnjem anksioznosti i depresivnosti. Naime, G1 skupina (s višim rezultatom na ljestvici TAS-26) pokazala je identične stupnjeve anksioznosti i depresivnosti koji su viši u odnosu na rezultate koje su postigli ispitanici iz skupine G2. Li i suradnici (43) navode kako je prema nekim longitudinalnim studijama ublažavanje simptoma anksioznosti i depresije rezultiralo manje izraženim stupnjem aleksitimije. Iz navedenog se može zaključiti da izraženost simptoma anksioznosti i depresivnosti pozitivno korelira s izraženošću stupnja aleksitimije. U ovom istraživanju spomenute psihološke dimenzije statistički značajno visoko pozitivno

of alexithymia. Therefore, the respondents with lower professional qualifications, a higher degree of anxiety and depression, and higher scores in terms of external health locus of control, also had a higher degree of alexithymia.

DISCUSSION

The results of the study have shown that the group of respondents suffering from anxiety disorders (G1) had a higher average score on the alexithymia scale TAS-26 compared to the (G2) group of respondents suffering from psychosomatic disorders. In accordance with the interpretation of the results obtained from the TAS-26 scale (20), it is clear that on average the respondents from both test groups were in the borderline category, presenting only some symptoms of alexithymia, with group G1 also achieving statistically significantly higher values than group G2. Such results are inconsistent with the first hypothesis, which assumes exactly the opposite, i.e. that group G2 would display a higher degree of alexithymia. Previous studies have already confirmed that among those suffering from anxiety disorders there is a large share of individuals who also display signs of alexithymia (41, 27), and that there is a possibility of a secondary onset of alexithymia as a consequence of such disorders (28). In studies conducted by Yildrim et al. (41) and Onur et al. (64), respondents with anxiety disorders on average achieved borderline results on the TAS-20 scale as well. However, contrary to expectations, a higher degree of alexithymia was obtained in the group of patients suffering from anxiety disorders. Upon reviewing recent literature, no papers were found that examined and explained the existence of such differences. Nevertheless, indirect reasoning might provide a potential answer, which lies in the relationship between alexithymia and anxiety and depression. It is within the framework of the first research problem that attempts are made to examine the connection between alexithymia and the degree of anxiety and depression. In fact, group G1 (with a higher score on the TAS-26 scale) presented identical degrees of anxiety and depression which are higher than the results achieved by the

koreliraju, kako međusobno (r= 0,72) tako i sa stupnjem aleksitimije (r = 0,56 i 0,52), što je u skladu s prethodnim zaključkom i dosadašnjim istraživanjima (44). Stoga, budući da je skupina G1 ostvarila klinički i statistički relevantan rezultat na ljestvici anksioznosti i depresije HSCL-25 (za razliku od skupine G2), to potencijalno objašnjava i više stupnjeve aleksitimije u toj skupini. Aleksitimija, anksioznost i depresivnost će se vjerojatnije naći u mlađih osoba (r = 0,20) i onih niže stručne spreme (r = 0,21). Kako je već ranije navedeno, dosadašnje studije dale su oprečne rezultate o povezanosti aleksitimije i dobi. Tako jedne upućuju na njihovu slabiju povezanost (64), a druge na višu prevalenciju aleksitimije u određenim dobnim skupinama. Vezano za niži stupanj formalnog obrazovanja, rezultati ovog istraživanja poklapaju se s rezultatima Mattila i suradnika (3).

Za prvi istraživački problem veže se i druga hipoteza koja je predmnijevala unutrašnji lokus kontrole zdravlja u G1 skupini, a vanjski lokus kontrole zdravlja u skupini G2. Rezultati istraživanja pokazali su da je u obje skupine ispitanika predominantni unutrašnji lokus kontrole zdravlja (slika 1). Unutrašnji lokus kontrole ne pokazuje značajne razlike između G1 i G2 skupine, dok su vrijednosti vanjskog lokusa minimalno (ali statistički značajno) veće u skupini G2. Međutim, važno je naglasiti kako su razlike u postignutim vrijednostima na unutrašnjem i vanjskom lokusu veoma male. Prema Kardum i suradnicima (26) moguće je da, u određenim okolnostima i životnim situacijama, tj. prema potrebi, jedna te ista osoba manifestira unutrašnji, a u drugima vanjski lokus kontrole. Stoga, minimalna statistička prednost koju unutrašnji lokus kontrole u ovom istraživanju ostvaruje nad vanjskim, u praktičnom je smislu beznačajna jer ispitanici u stvarnosti očigledno podjednako i prema potrebi koriste oba lokusa. Dvojni lokus kontrole zdravlja je zapravo i najpoželjniji jer osigura-

respondents in group G2. Li et al. (43) state that according to some longitudinal studies, an alleviation of anxiety and depression symptoms resulted in a less pronounced degree of alexithymia. It can be concluded from the above that the severity of anxiety and depression symptoms has a positive correlation with the severity of alexithymia symptoms. The psychological dimensions referred to in this study have a significantly high positive statistical correlation both with each other (r=0.72) and with the degree of alexithymia (r=0.56 and 0.52), which is consistent with the previous conclusion and with the studies conducted so far (44). Therefore, since group G1 achieved a clinically and statistically relevant result on the HSCL-25 anxiety and depression questionnaire (as opposed to group G2), this also potentially explains the higher degrees of alexithymia in this group. Alexithymia, anxiety and depression are more likely to be diagnosed in younger individuals (r=0.20) and those with lower professional qualifications (r=0.21). As discussed above, previous studies have produced conflicting results when it comes to the connection between alexithymia and age. On the one hand, some suggest a weak link between them (64), while others indicate a higher prevalence of alexithymia in certain age groups. In terms of a lower degree of formal education, the results of this study are consistent with the results presented by Mattila et al. (3).

The first research problem is also associated with the second hypothesis which presumes that group G1 has an internal health locus of control, and that group G2 has an external health locus of control. Study results have shown that the internal health locus of control is predominant in both groups of respondents (Figure 1). There were no significant differences between groups G1 and G2 in terms of the internal locus of control, while the values of the external locus of control were higher by a minimal (but statistically significant) difference in group G2. It is, however, important to note that the observed differences in achieved values between the internal and external locus of control were very slight. According to Kardum et al. (26), it is possible that under certain circumstances and in certain situations, i.e. when necessary, a single

va najbolju psihološku prilagodbu i strategije suočavanja (29). Dvojni lokus u obje ispitane skupine navodi na zaključak da u pojedinaca blaže izraženih značajki (potencijalne) aleksitimije nije moguće predvidjeti koegzistenciju određenog tipa lokusa kontrole zdravlja. Kako je već navedeno, nezavisnost ovih dviju dimenzija ličnosti utvrdili su Wise i suradnici (65), no postoje i oni koji su došli do drugačijih zaključaka (38). Budući da u ispitanim skupinama nije nađena uvjerljiva dominacija, kao ni korelacija jednog tipa zdravstvenog lokusa kontrole s aleksitimijom, za pretpostaviti je da oni neće značajnije doprinijeti objašnjenju konstrukta aleksitimije.

Drugi istraživački problem bio je ispitati stupanj aktivacije simpatikusa u ispitivanih skupina. U tu svrhu su se obavila dva mjerenja arterijskog tlaka, frekvencije pulsa i disanja (prije i poslije ispunjavanja upitnika). S ovim je ciljem povezana treća hipoteza koja je pretpostavila da će se u skupini G2 pokazati jača aktivacija simpatikusa u odnosu na skupinu G1. To se nije pokazalo točnim ni u jednom mjerenju. Kao jedina statistički značajno viša mjera aktivacije simpatikusa, u prvom se mjerenju pokazala frekvencija pulsa, ali suprotno od očekivanog - u skupini G1. Kako je sudjelovanje u istraživanju potencijalno emocionalno zahtjevna/stresna situacija, jasno je da može rezultirati simpatičkim pobuđivanjem, posebno kod pojedinaca sklonih stresu (npr. skupina G1). U drugom su mjerenju dobivene vrijednosti gotovo identične onima iz prvog mjerenja. No, u skupini G1 detektiran je statistički značajan pad vrijednosti sistoličkog tlaka i srčane frekvencije što se može tumačiti kao smirivanje autonomnog emocionalnog odgovora na završetku testiranja. Dakle, u ovome je istraživanju skupina G1 pokazala da je, unatoč višem stupnju izraženosti značajki potencijalne aleksitimije, njihov autonomni emocionalni odgovor ostao netaknut, što se podudara s istraživanjem koje su proveli Walter i suradnici (19).

person can manifest the internal locus of control, while in other situations they will manifest the external locus of control. Therefore, the minimal statistical advantage achieved by the internal locus of control over the external one in this study is in practical sense insignificant because, in reality, the respondents obviously use both loci in equal amounts, depending on the need. A dual health locus of control is actually the most desirable, since it ensures the best psychological adaptation and coping strategies (29). A dual locus in both test groups leads to the conclusion that when it comes to individuals with mild (potential) alexithymia symptoms it is not possible to predict the coexistence of a certain type of health locus of control. As previously stated, an independence of these two personality dimensions was observed by Wise et al. (65), however some other researchers have reached different conclusions (38). Since no conclusive dominance or a correlation of one type of health locus of control with alexithymia were found in the groups tested, it is to be presumed that they will not significantly contribute to the explanation of the construct of alexithymia.

The other research problem was to examine the degree of sympathetic nervous system activation in the test groups. Two measurements of the arterial blood pressure, pulse rate and respiratory rate were performed for this purpose (before and after filling in the questionnaire). The third hypothesis is associated with this goal, which assumed that sympathetic nervous system activation would be stronger in group G2 than in G1. This did not prove to be correct in any measurement. The pulse rate in the first measurement proved to be the only statistically higher measure of sympathetic nervous system activation, but contrary to expectations - it was in group G1. Since participation in the study represented a potentially emotionally demanding/stressful situation, it is clear that it could result in sympathetic excitation, especially in individuals prone to stress (e.g. group G1). The values obtained in the second measurement were almost identical to those from the first measurement. However, a statistically significant drop in systolic blood pressure and heart rate was detected in group G1, which could be interpreted as the calming of autonomic

Kako bi se provjerila istinitost prethodnih zaključaka, ispitani su objektivni prediktori aleksitimije tj. njihovi međuodnosi, u skladu s glavnim ciljem i četvrtom hipotezom istraživanja, napravljena je hijerarhijska regresijska analiza (tablica 5). Njeni su rezultati pokazali da unutrašnji lokus kontrole zdravlja pojedinačno doista ne doprinosi značajno objašnjenju aleksitimije. Međutim, suprotan je rezultat dobiven za vanjski lokus kontrole zdravlja. Wise i suradnici (62) su pronašli naizgled značajnu korelaciju između aleksitimije i vanjskog zdravstvenog lokusa kontrole. No, kako je taj odnos posredovan povezanošću obih varijabli s neuroticizmom, smatraju da se zapravo radi o dva nezavisna fenomena (36). Budući da je u ispitanika ovog istraživanja pronađena značajna pozitivna korelacija između stupnja aleksitimije te stupnja anksioznosti i depresivnosti, moguće je da su dobiveni rezultati također posredovani sklonošću ispitanika neuroticizmu. Preostali rezultati dobiveni regresijskom analizom u skladu su s već danim pojašnjenjima pa su zapravo kratki pregled najbitnijih zaključaka. Ukupni model koji uključuje sociodemografska obilježja, zdravstveni lokus kontrole te anksioznost i depresivnost objašnjava 47 % varijance aleksitimije. Značajni pojedinačni prediktori aleksitimije su stručna sprema, vanjski lokus kontrole, te anksioznost i depresivnost koje zajedno u najvećoj mjeri objašnjavanju varijancu aleksitimije (34 %). Veći stupanj aleksitimije imat će osobe niže stručne spreme, s višim stupnjem anksioznosti i depresivnosti te izraženijim vanjskim lokusom kontrole zdravlja. Budući da je aleksitimija rizični faktor za osjećanje životnog nezadovoljstva (3), a povezana je i s korištenjem medicinskih usluga i ishodima liječenja (66), veoma je važno prepoznati pojedince s potencijalnim osobinama aleksitimije kako bi im se mogla pružiti adekvatna pomoć.

Ovo istraživanje ima nekoliko ograničenja. Prvo, uzorak je relativno malen. Drugo, nije se

emotional response once the testing was completed. Furthermore, this test has shown that despite displaying a higher degree of potential signs of alexithymia, the autonomic emotional response of group G1 remained unaffected, which is consistent with the study conducted by Walter et al. (19).

In order to verify the accuracy of the conclusions presented above, objective predictors of alexithymia, i.e. their correlations, were examined, and in accordance with the main objective and the fourth hypothesis of the study, a hierarchical regression analysis was performed (table 5). Its results have shown that the internal health locus of control in fact does not individually significantly contribute to the explanation of alexithymia. However, when it comes to the external health locus of control, the obtained result was opposite. Wise et al. (62) observed a seemingly significant correlation between alexithymia and the external health locus of control. However, since this relationship is mediated by the connection of both variables with neuroticism, they believe that it actually represents two independent phenomena (36). Considering that a significant positive correlation between the degree of alexithymia and the degree of anxiety and depression was observed among the respondents taking part in this study, it is possible that the obtained results are also mediated by the respondents' tendency towards neuroticism. The remaining results obtained by means of regression analysis are in line with the explanations already provided, therefore they are a brief overview of the most important conclusions. The overall model which includes sociodemographic characteristics, health locus of control, and anxiety and depression, explains 47% of the alexithymia variance. Significant individual predictors of alexithymia include professional qualifications, external locus of control, and anxiety and depression, which all together explain the alexithymia variance to the greatest extent (34%). Individuals with lower professional qualifications, a higher degree of anxiety and depression, and more pronounced external health locus of control will also display a higher degree of alexithymia. Since alexithymia represents a risk factor for experiencing dissatisfaction with life

obraćala pažnja na to uzimaju li ispitanici koji boluju od esencijalne arterijske hipertenzije terapiju i je li njome postignuta regulacija krvnog tlaka. To je zasigurno utjecalo na dobivene vrijednosti aktivacije simpatikusa. Nadalje, nije se razmatralo ni uzimaju li ispitanici skupine G1 kroničnu terapiju i/ili su uključeni u neki oblik psihoterapije što vjerojatno ima utjecaja na rezultate modulacijom njihovog psihičkog stanja. Nadalje, nije se uzelo u obzir fazu bolesti (remisija, egzacerbacija) što može utjecati na ispitivane varijable.

Sugestija budućim istraživačima je da se u istraživanje uključe zdravi ispitanici kao kontrolna skupina, te da se uzročno posljedične veze aleksitimije i njenih objektivnih pokazatelja objasne longitudinalnim istraživanjem. Nadalje, trebalo bi pobliže ispitati kakva je uloga sklonosti neuroticizmu spram dinamike odnosa vanjskog lokusa kontrole i aleksitimije. Za one ispitanike u kojih se pronađu značajke aleksitimije, može se pokušati odrediti radi li se o primarno ili sekundarno nastaloj aleksitimiji.

Ran(ij)om detekcijom osoba sa značajkama aleksitimije na osnovi utvrđenih objektivnih pokazatelja, mogla bi im se ponuditi i pružiti pravovremena podrška u obliku psihijatrijskog (psihoterapijskog) tretmana koji bi im pomogao u smanjivanju stupnja izraženosti aleksitimije.

ZAKLJUČAK

Ispitanici obje ispitivane skupine u prosjeku su ostvarili granične vrijednosti na ljestvici TAS-26, s time da su ispitanici skupine G1 (oboljeli od anksioznih poremećaja) ostvarili statistički značajno viši rezultat u odnosu na ispitanike skupine G2 (oboljeli od psihosomatskih poremećaja). Stupanj aleksitimije u ispitanika obih skupina u statistički je značajnoj pozitivnoj korelaciji sa stupnjem anksio-

(3) and it is also associated with the use of medical services and treatment outcomes (66), it is of utmost importance to recognize the individuals displaying potential signs of alexithymia so that they could be provided with adequate assistance.

There were several limitations to this study. First, the examined sample was relatively small. Second, it was not checked whether the respondents suffering from essential arterial hypertension were taking medications and whether these medications successfully regulated their blood pressure. This fact must have had an effect on the sympathetic nervous system activation values obtained. Furthermore, it was not considered whether the respondents from group G1 were taking chronic therapy and/or were included into some form of psychotherapy, which, by modulating their mental state, probably had an effect on the results. Moreover, the phase of the illness was not taken into account (remission, exacerbation), which could have affected the variables tested.

We suggest that the future researchers include healthy respondents into their research, so as to serve as a control group, and that the causal links between alexithymia and its objective indicators be explained by means of longitudinal research. The role of tendency towards neuroticism as opposed to the dynamics of the connection between the external locus of control and alexithymia should be further examined. For the respondents observed to display signs alexithymia, attempts could be made to determine whether they are suffering from primary or secondary alexithymia.

An early (earlier) detection of individuals with signs of alexithymia based on determined objective indicators could ensure that they are offered and provided with timely support in the form of psychiatric (psychotherapeutic) treatments which would help reduce the degree of alexithymia.

CONCLUSION

On average, the respondents in both test groups achieved borderline results on the TAS-26 scale, with respondents from group G1 (suffering from

znosti i depresivnosti. U pojedinaca s višim stupnjem aleksitimije očekuje se i viši stupanj vanjskog lokusa kontrole zdravlja. Aktivaciju (i smirivanje) znakova aktivacije simpatikusa pokazali su samo ispitanici skupine G1, koji unatoč višem stupnju izraženosti aleksitimije imaju očuvan autonomni emocionalni odgovor. Značajni individualni doprinos objašnjenju aleksitimije daju sljedeći objektivni prediktori: stručna sprema, vanjski lokus kontrole, anksioznost i depresivnost. Veći stupanj aleksitimije imat će osobe niže stručne spreme, višeg stupnja anksioznosti i depresivnosti te izraženijeg vanjskog lokusa kontrole zdravlja.

anxiety disorders) achieving significantly higher results in comparison to the respondents from group G2 (suffering from psychosomatic disorders). The degree of alexithymia in respondents from both groups had a statistically significant positive correlation with the degree of anxiety and depression. In the case of individuals with a higher degree of alexithymia, a higher degree of external health locus of control is also expected. Only the respondents from group G1, who despite displaying a higher degree of alexithymia had a preserved autonomic emotional response, displayed sympathetic nervous system activation (and its calming). The following objective predictors have a significant individual contribution to the explanation of alexithymia: professional qualifications, external locus of control, anxiety and depression. Individuals with lower professional qualifications, a higher degree of anxiety and depression, and a more pronounced external health locus of control will also display a higher degree of alexithymia.

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