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UTICAJ OBRASCA PIJENJA ALKOHOLA NA RAZVOJ DEPRESIJE, ANKSIOZNOSTI I SOMATSKOG POREMEĆAJA NA PODRUČJU KRUPA NA UNI

APSTRAKT: Uvod: Konzumiranje alkohola može dovesti do ispoljavanja različite psihijatrijske patologije, kako tokom održavanja adiktivnog ciklusa tako i nakon uspostavljanja apstinencije.

Cilj: Istraživanje je imalo za cilj ispitati postojanje statistički značajne povezanosti obrasca pijenja alkohola sa intenzitetom anksioznosti, depresije i somatskih poremećaja.

Metode: Sprovedeno je istraživanje – studija preseka na uzorku od 110 ispitanika sa područja Krupa na Uni u periodu od 01.10.2018. do 01.06.2019. godine. Uzorak je činilo 110 slučajno odabranih pacijenata koji konzumiraju alkohol, 35 (31,8%) žena i 75 (68,2%) muškaraca, prosečne starosti 51 ± 1.9 godina. U istraživanju su korišćeni upitnici: Alcohol Use Disorders Identification Test, Generalized Anxiety Disorder, Patient Health Questionnaire, Beck's Depression Inventory. U analizi podataka korišćen je hi kvadrat test.

Rezultati: Niskorizično pijenje verifikovano je kod 36 (37,2%) ispitanika, rizično pijenje kod njih 50 (45,5%). Štetno pijenje utvrđeno je kod 20 (18,2%) ispitanika, zloupotreba alkohola kod njih 4 (3,6%). Simptome anksioznosti imalo je 85 (77, 3%) ispitanika. Isti broj ispitanika imao je somatske tegobe. Depresivno je bilo 66 (60,0%) učesnika u istraživanju. Postojala je statistički značajna povezanost obrasca pijenja sa intenzitetom anksioznih i depresivnih tegoba ($p < 0.05$). Kada su u pitanju somatske tegobe ista nije verifikovana ($p > 0.05$)

Zaključak: Obrazac pijenja alkohola je u saglasnosti sa intenzitetom anksioznih tegoba. Štetno pijenje alkohola rezultira intenzivnim somatskim tegobama, dok zloupotreba alkohola nije statistički značajno

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povezana sa istim. Intenzitet depresivnih tegoba je u korelaciji sa obrascem pijačja alkohola. Dobijeni rezultati su u skladu sa istraživanjima iz drugih zemalja.

Ključne riječi: alkohol, anksioznost, depresija, somatski poremećaji.

SUMMARY: Introduction: Alcohol consumption can lead to different psychiatric pathologies, both during maintenance of the addictive cycle and after abstinence is established.

Objective: The study aimed to examine the existence of a statistically significant association of drinking patterns alcohol with the intensity of anxiety, depression and somatic disorders in alcohol users.

Methods: The study was performed as a cross-sectional study at the Health Center Krupa na Uni in the period from 01.10.2018. to 01.06.2019. The sample consisted of 110 randomly selected patients consuming alcohol, 35 (31.8%) women and 75 (68.2%) men, with an average age of 51 ± 1.9 years. The survey used the following questionnaires: Alcohol Use Disorders Identification Test, Generalized Anxiety Disorder, Patient Health Questionnaire, Beck's Depression Inventory. The chi-square test was used in the data analysis.

Results: Low-risk drinking was verified in 36 (32.7%) of respondents, high-risk drinking in 50 (45.5%) of them. Harmful drinking was found in 20 (18.2%) of respondents, alcohol abuse in 4 (3.6%) of them. Symptoms of anxiety were 85 (77.3%) of respondents. The same number of subjects had somatic problems. 66 (60.0%) of the study participants were depressed. There was a statistically significant association of drinking patterns with the intensity of anxiety and depression ($p < 0.05$). In the case of somatic disorders, the same was not verified ($p > 0.05$).

Conclusion: The pattern of drinking alcohol is consistent with the intensity of anxiety disorders. Harmful drinking alcohol results in intense somatic distress, while alcohol abuse is not statistically significantly associated with the same. The intensity of depression is correlated with the pattern of drinking alcohol. The obtained results are in accordance with researchers from other countries.

Keywords: alcohol, anxiety, depression, somatic disorders.

UVOD

Oko 90% ljudi u nekom periodu svog života konzumira alkohol. Zloupotreba alkohola razvije se kod 5–10% istih, dok 10% muškaraca i 3–5% žena postaje ovisno o alkoholu [1, 2]. Oko 3,3 milijuna smrtnih slučajeva svake godine nastaje kao

posljedica upotrebe alkohola širom svijeta. Samo u Sjedinjenim Državama troškovi prekomjerne konzumacije alkohola procijenjeni su na 223,5 milijardi USD (engl. United States Dollar) [3].

Upotreba alkohola utiče na sve sfere života pojedinca (porodično, radno i šire društveno okruženje). Dugotrajno konzumiranje alkohola može dovesti do ispoljavanja različite psihijatrijske patologije, kako tokom održavanja adiktivnog ciklusa tako i nakon uspostavljanja apstinencije. Mentalni poremećaji nastaju kao posljedica:

(1) direktnog kauzaliteta (upotreba alkohola čini verovatnijim razvoj mentalnog poremećaja);

(2) indirektnog kauzaliteta (konzumiranje alkohola posredstvom treće, medirajuće, varijable povećava vjerovatnoću razvoja mentalnog poremećaja;

(3) zajedničkih faktora koji istovremeno povećavaju rizik za razvoj oba poremećaja [4, 5].

CILJ ISTRAŽIVANJA

Istraživanje je imalo za cilj utvrditi:

1) postojanje statistički značajne povezanosti obrasca pijenja alkohola sa intenzitetom anksioznosti,

2) postojanje statistički značajne povezanosti obrasca pijenja alkohola sa intenzitetom somatskih poremećaja,

3) postojanje statistički značajne povezanosti obrasca pijenja alkohola sa intenzitetom depresije.

MATERIJAL I METODE

Sprovedeno je istraživanje – studija preseka na uzorku od 110 ispitanika sa područja Krupe na Uni u periodu od 01.10.2018. do 01.06.2019. godine. Istraživanje je odobreno od strane Etičkog odbora Doma zdravlja Krupa na Uni. Kriterijumi za uključivanje ispitanika u istraživanje su bili: anamnestički podatak o konzumiranju alkohola u trajanju od najmanje dvanaest mjeseci, uzrast između 20 i 79 godina, završena osnovna škola. Iz studije su isključene osobe: starosti iznad 79 i ispod 20 godina, sa konzumiranjem alkohola u trajanju kraćem od dvanaest mjeseci, kao i sve osobe sa malignim i uznapredovalim hroničnim oboljenjima (hronična bubrežna insuficijencija, dekompenzacija srca, insuficijencija jetre). Podaci su prikupljeni specifičnim upitnicima.

Test za identifikaciju poremećaja uzrokovanih alkoholom (engl. Alcohol Use Disorders Identification Test, AUDIT) razvijen je i preporučen od Svjetske zdravstvene organizacije (engl. World Health Organization, WHO) za ranu identifikaciju rizičnog i

štetnog pijenja, kao i zavisnosti od alkohola. Test se sastoji od tri pitanja iz oblasti rizične upotrebe alkohola (učestalost pijenja, tipična količina, učestalost teškog pijenja), četiri pitanja iz oblasti štetne upotrebe alkohola (krivica poslije pijenja, amnezija, povrede usljed konzumacije alkohola, zabrinutost okoline) i tri pitanja koja obuhvataju simptome zavisnosti (umanjena kontrola nad pijenjem, povećana želja za pijenjem, jutarnje pijenje) koja bodujemo ocjenom 0–4. Skor 0–7 govori u prilog niskorizičnog pijenja. Rezultat u intervalu 8–15 odgovara rizičnom pijenju. Štetno pijenje je prisutno kod pacijenata sa skorom 16–19. Zbir 20–40 otkriva zloupotrebu alkohola [1, 6].

Upitnik za samoprocjenu intenziteta simptoma generalizovanog anksioznog poremećaja (Generalized Anxiety Disorder, GAD-7) se koristi u primarnoj zdravstvenoj zaštiti kako bi se procijenilo prisustvo i intenzitet generalizovanog anksioznog poremećaja. Sastoji se od sedam pitanja koja mjere težinu simptoma generalizovanog anksioznog poremećaja u toku posljednje dvije nedelje. U zavisnosti od pacijentovog odgovora pitanja bodujemo skorom od 0 do 3. Skor od 0 do 4 karakterističan je za zdrave osobe bez simptoma anksioznosti. Skor od 5 do 9 govori u prilog blago izraženih simptoma anksioznosti. Ukoliko je skor između 10 i 14 simptomi anksioznosti su umjereno izraženi. Ozbiljni simptomi anksioznosti prisutni su kod pacijenata sa skorom ≥ 15 [7, 8, 9].

Upitnik za samoprocjenu intenziteta somatskih tegoba (Patient Health Questionnaire, PHQ-15) sadrži 15 somatskih tegoba koje su pacijenti ocjenjivali ocjenom 0–2 u zavisnosti od toga koliko ih je svaka od njih ometala u svakodnevnom aktivnostima. Ukupni skor upitnika za žene iznosio je 0–30, dok je za muškarce skor bio 0–28. Rezultat 0–4 ukazivao je na minimalne somatske tegobe. Niske somatske tegobe imali su ispitanici sa skorom 5–9. Srednji intenzitet somatskih tegoba karakteriše skor 10–14, dok je rezultat od 15 i više ukazivao na ozbiljne somatske tegobe [9, 10]. Bekov indikator depresije (engl. Beck's Depression Inventory, BDI) koristi se kao indikator postojanja i intenziteta depresivnih simptoma koji su u saglasnosti sa aktuelnim Dijagnostičkim i statističkim priručnikom za mentalne poremećaje (engl. Diagnostic and Statistical Manual, DSM). Danas je u upotrebi druga revidirana verzija preporučena od strane Američke asocijacije psihijatarata (engl. American Psychiatric Association's, APA). Sastoji se od 21 izjave (svaka izjava je lista od četiri navoda rangiranih prema intenzitetu određenog simptoma depresije) koje bodujemo ocjenom od 0 do 3. U zavisnosti od ukupnog skora upitnikom se isključuje postojanje depresije (ukupan skor 0–13), govori o blagoj (ukupan skor 14–19), umjerenoj (ukupan skor 20–28) ili teškoj depresiji (ukupan skor 29–63) [11, 12].

REZULTATI

Istraživanje je obuhvatilo 110 pacijenata. Među njima je bilo 35 (31,8%) žena i 75 (68,2%) muškaraca (Grafikon 1). Najveći broj ispitanika koji konzumiraju alkohol 75 (68,2%) su životne dobi 40–59 godina. Prosječna starost ispitivane populacije bila

je 51 ± 1.9 godina (Grafikon 2). Niskorizično pijenje verifikovano je kod 36 (37,2%) ispitanika, rizično pijenje kod njih 50 (45,5%). Štetno pijenje utvrđeno je kod 20 (18,2%) ispitanika, zloupotreba alkohola kod njih 4 (3,6%). Simptome anksioznosti imalo je 85 (77,3%) učesnika u istraživanju (18,2% blago izražene simptome anksioznosti, 47,3% umjereno izražene simptome anksioznosti, 11,8% ozbiljno izražene simptome anksioznosti). Somatske tegobe imalo je 85 (77,3%) ispitanika (30,0% blago izražene somatske tegobe, 39,1% umjereno izražene somatske tegobe, 8,2% ozbiljno izražene somatske tegobe). Simptomi depresije utvrđeni su kod 66 (60,0%) ispitanika (36,4% blago izražene simptome depresije, 18,2% umjereno izražene simptome depresije i 5,4% ozbiljno izražene simptome depresije). Ozbiljno izražene simptome anksioznosti imalo je 75,0% ispitanika koji su zloupotrebljavali alkohol, 40,0% ispitanika sa štetnim pijenjem, 2,0% ispitanika sa rizičnim pijenjem i 2,8% ispitanika sa niskorizičnim pijenjem. Istraživanje je verifikovalo postojanje statistički značajnog uticaja obrasca pijenja na intenzitet anksioznih tegoba kod učesnika u istraživanju ($p < 0.05$). Ozbiljno izražene somatske tegobe imalo je 11,1% ispitanika sa niskorizičnim pijenjem, 8,0% ispitanika sa rizičnim pijenjem i 5,0% ispitanika sa štetnim pijenjem. Istraživanje nije verifikovalo postojanje statistički značajnog uticaja obrasca pijenja na intenzitet somatskih tegoba kod učesnika u istraživanju ($p > 0.05$). Ozbiljno izražene simptome anksioznosti imalo je 50,0% ispitanika koji su zloupotrebljavali alkohol, 15,0% ispitanika sa štetnim pijenjem i 2,0% ispitanika sa rizičnim pijenjem. Istraživanje je verifikovalo postojanje statistički značajnog uticaja obrasca pijenja na intenzitet depresivnih tegoba kod učesnika u istraživanju ($p < 0.05$).

DISKUSIJA

Komorbiditet upotrebe alkohola i mentalnih poremećaja je kompleksan i još uvijek nedovoljno istražen. Konzumiranje alkohola narušava neurohumoralnu i psihičku homeostazu i podstiče nastanak mentalnih poremećaja. Utiče na koncentraciju triptofana, N- metil-D aspartata, homovalinske kiseline, γ - amino buterne kiseline, endogenih opoida. Negativno djeluje na kognitivne funkcije, doprinosi osjećaju niže vrijednosti, krivice i beznađa, narušava međuljudske odnose, indukuje delinkvenciju [11, 13]. S druge strane, zloupotreba alkohola nerijetko je rezultat samoliječenja mentalnih poremećaja. Osobe sa mentalnim poremećajima konzumiraju alkohol u pokušaju ublažavanja tegoba, smanjenja napetosti i prigušivanja stresne reakcije. Genetski faktori i vulnerabilnost osobe igraju značajnu ulogu u komorbiditetu alkoholizma i mentalnih poremećaja. Literarni podaci ukazuju na statistički značajno češće prisustvo navedenog komorbiditeta u određenim porodicama ili blizanačkoj populaciji [11, 13]. Istraživanje je detektovalo visok stepen komorbiditeta upotrebe alkohola i anksioznog poremećaja. Simptome anksioznosti imalo je 77,3% učesnika u istraživanju (18,2% blago izražene simptome anksioznosti, 47,3% umjereno izražene

simptome anksioznosti, 11,8% ozbiljno izražene simptome anksioznosti). Intenzitet anksioznih tegoba bio je u saglasnosti sa obrascem pijenja.

Studija u Indiji utvrdila je blagu anksioznost kod 60% pacijenata hospitalizovanih zbog prekomjerne konzumacije alkohola [14].

Multicentrično istraživanje u Njemačkom verificovalo je postojanje anksioznosti kod 42,3% pacijenata hospitalizovanih u 25 centara za liječenje alkoholizma [15].

Studije provedene u Brazilu detektovale su anksioznost kod 23–70% pacijenata ovisnih o alkoholu. Prema istim, medikamentozna terapija anksioznosti značajno produžava vrijeme potrebno za razvijanje alkoholne ovisnosti [16]. Istraživanje grupe autora iz Velike Britanije detektovalo je anksioznost kao nezavisni faktor rizika u nastanku poremećaja upotrebe alkohola. Isto ukazuje da medikamentozna terapija anksioznosti dovodi do značajnog smanjenja pijenja [17]. Studije provedene u Sjedinjenim Američkim Državama utvrdile su postojanje anksioznosti u 60% pacijenata koji konzumiraju alkohol. Utvrdile su da prisustvo intenzivne anksioznosti za 20 puta povećava rizik od nastanka alkoholne ovisnosti [18, 19].

Istraživanje grupe autora iz Holandije detektovalo je alkoholnu ovisnost kod 20,3% pacijenata sa anksioznim poremećajem (naspram 5,5% iste u kontrolnoj grupi). Suprotno tome, prevalencija zloupotrebe alkohola kod anksioznih pacijenata nije bila statistički značajno veća u odnosu na kontrolnu grupu [20]. Somatske tegobe imalo je 77,3% učesnika u istraživanju (30,0% blago izražene somatske tegobe, 39,1% umjereno izražene somatske tegobe, 8,2% ozbiljno izražene somatske tegobe). Najveći intenzitet somatskih tegoba verificovan je kod ispitanika sa štetnim pijenjem alkohola. Ispitanici sa zloupotrebom alkohola imali su umjerene somatske tegobe. Istraživanja evropskih i američkih autora došla su do sličnih zaključaka. Studija autora iz Njemačke utvrdila je somatske tegobe u 13,8% muškaraca i 33,3% žena koje konzumiraju alkohol. Prema istim, svakodnevno konzumiranje 30 gr etanola za muškarce i 20 gr etanola za žene nosilo je statistički značajno veći rizik od nastanka somatskih tegoba u odnosu na pijenje manjih količina alkohola. Grupa autora iz Sjedinjenih Američkih Država detektovala je nisku stopu somatskih poremećaja, svega 7,4%, kod osoba sa zloupotrebom alkohola. Slične rezultate imale su studije provedene u Kanadi koje nisu verificovale statistički značajnu povezanost zloupotrebe alkohola i somatskih tegoba. S druge strane, utvrdile su da je konzumiranje 7 alkoholnih pića dnevno u toku 2 nedjelje nosilo statistički značajno veći rizik od nastanka somatskih tegoba u odnosu na pijenje umjerenih količina alkohola [21, 22].

Istraživanje je utvrdilo postojanje simptoma depresije kod 60,0 % osoba koje konzumiraju alkohol (36,4% blago izražene simptome depresije, 18,2% umjereno izražene simptome depresije i 5,4% ozbiljno izražene simptome depresije). Obrazac konzumacije alkohola je u tijesnoj vezi sa intenzitetom depresivnih tegoba.

Studija grupe autora iz Kenije verificovala je sekundarnu depresiju kod 68,3% osoba koje konzumiraju alkohol [23]. Istraživanje grupe autora u Nepal utvrdilo je

postojanje depresije kod 41,7% osoba hospitalizovanih zbog upotrebe alkohola [24]. Istraživanja provedena u Engleskoj verifikovala su postojanje umjerene depresije u 47% osoba sa dijagnozom alkoholizma, dok je ozbiljne depresivne tegobe imalo njih 34% [25]. Istraživanje američkih autora utvrdilo je da muškarci koji piju 14–27 alkoholnih pića sedmično i žene koje piju 7–13 alkoholnih pića sedmično imaju značajno veće prisustvo depresije u odnosu na one koji piju manje količine alkohola [26]. Dobijeni rezultati istraživanja su u skladu sa navedenim istraživanjima iz drugih zemalja, što potvrđuje činjenicu da su alkoholizam i komorbidetni mentalni poremećaji globalni javnozdravstveni problem. Postoji konsenzus autora da prisustvo mentalnih poremećaja može značajno uticati na tok i ishod liječenja alkoholičara, te samim tim njihov skrining treba postati rutinski dio kliničke prakse.

ZAKLJUČAK

Obrazac pijenja alkohola je u saglasnosti sa intenzitetom anksioznih tegoba. Štetno pijenje alkohola rezultira intenzivnim somatskim tegobama, dok zloupotreba alkohola nije statistički značajno povezana sa istim. Intenzitet depresivnih tegoba je u saglasnosti sa obrascem pijenja alkohola.

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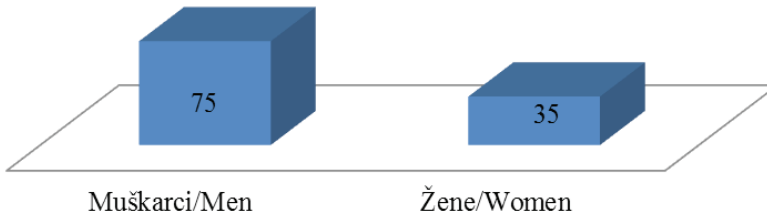
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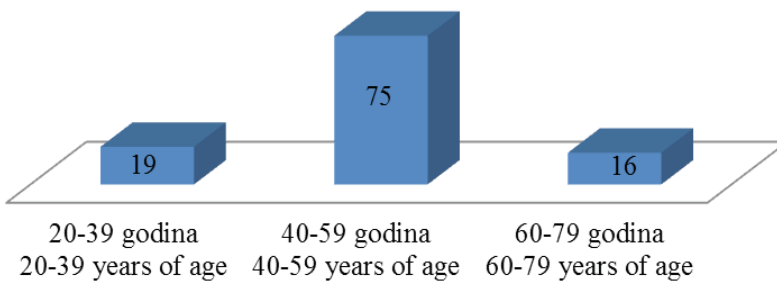
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Grafikon 1. Struktura ispitanika po polu**Figure 1. Participants gender**

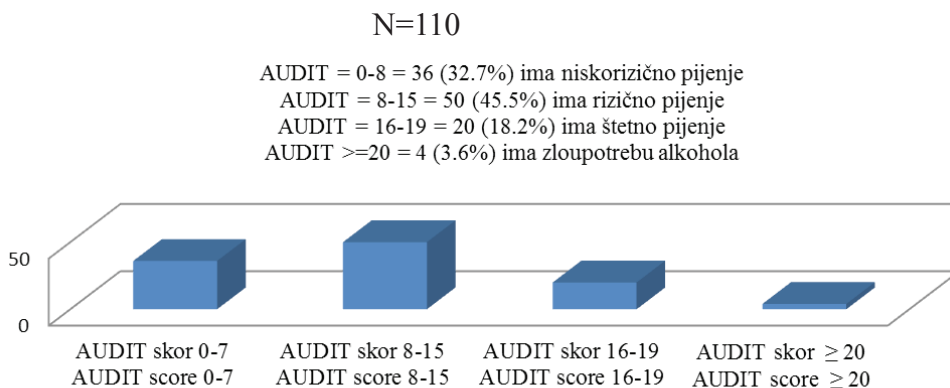
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**Grafikon 2. Dobna struktura ispitanika****Figure 2. Participants years**

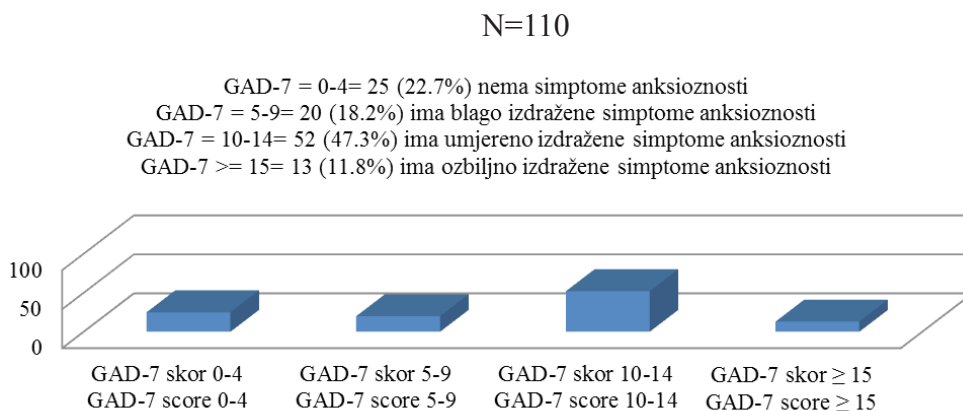
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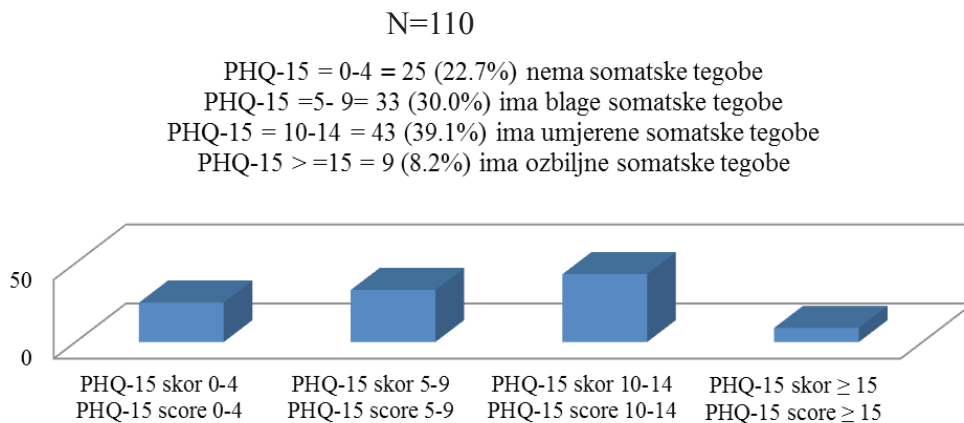
Grafikon 3. Obrazac pijenja alkohola učesnika u istraživanju po upitniku AUDIT
Figure 3. Alcohol drinking pattern of participants in the study according to AUDIT Questionnaire



Grafikon 4. Intenzitet anksioznih tegoba učesnika u istraživanju po upitniku GAD-7
Figure 4. Intensity of anxiety of participants in the study according to questionnaire GAD-7



Grafikon 5. Intenzitet somatskih tegoba učesnika u istraživanju po upitniku PHQ-15
Figure 5. Intensity of somatic difficulties of the participants in the study according to the PHQ-15 questionnaire



Grafikon 6. Intenzitet depresivnih tegoba učesnika u istraživanju po upitniku BDI
Figure 6. Intensity of depressive disorders of participants in the the study according to BDI Questionnaire

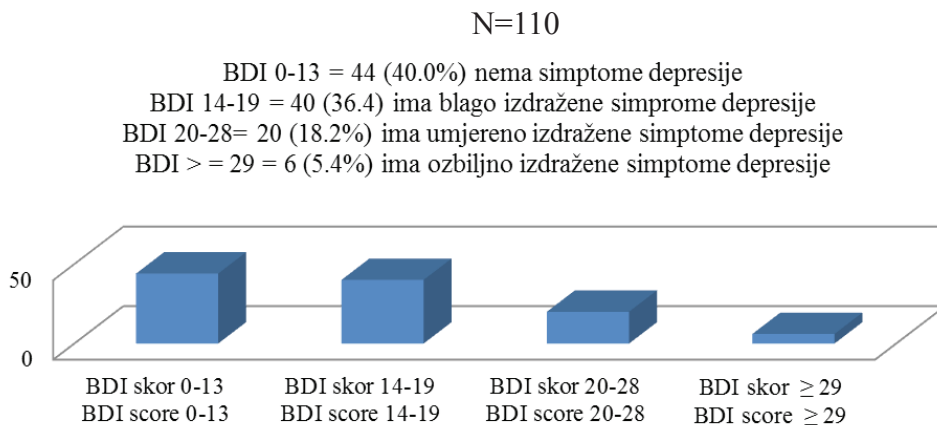


Tabela 1. Međusobni odnos intenziteta depresivnih, anksioznih i somatskih tegoba po Beck's Depression Inventory index-u, Generalized Anxiety Disorder index-u i Patient Health Questionnaire index-u i obrasca pijačnja po Alcohol Use Disorders Identification Test index-u

Karakteristike/ Characteristics	¹ AUDIT skor 0-8 / ¹ AUDIT score 0-8	² AUDIT skor 8-15 / ² AUDIT score 8-15	³ AUDIT skor 16-19/ ³ AUDIT score	⁴ AUDIT skor ≥ 20/ ⁴ AUDIT score ≥ 20	*p vrijednost / *p value
⁵ GAD-7 skor 0-4/	12 (33.3%)	12 (24.0%)	1 (5.0%)	0 (0.0%)	< 0.05
⁶ GAD-7 skor 5-9/	12 (33.3%)	6 (12.0%)	2 (10.0%)	0 (0.0%)	
⁷ GAD-7 skor 10-14/	11 (30.6%)	31 (62.0%)	9 (45.0%)	1 (25.0%)	
⁸ GAD-7 skor ≥ 15/	1 (2.8%)	1 (2.0%)	8 (40.0%)	3 (75.0%)	
⁹ PHQ-15 skor 0-4/	8 (22.2%)	16 (32.0%)	1 (5.0%)	0 (0.0%)	> 0.05
¹⁰ PHQ-15 skor 5-9/	18 (50.0%)	13 (26.0%)	12 (60.0%)	0 (0.0%)	
¹¹ PHQ-15 skor 10-14/	6 (16.7%)	17 (34.0%)	6 (30.0%)	4 (100%)	
¹² PHQ-15 skor ≥ 15/	4 (11.1%)	4 (8.0%)	1 (5.0%)	0 (0.0%)	
¹³ BDI skor 0-13/	20 (55.6%)	22 (44.0%)	2 (10.0%)	0 (0.0%)	< 0.05
¹⁴ BDI skor 14-19/	13 (36.1%)	20 (40.0%)	7 (35.0%)	0 (0.0%)	
¹⁵ BDI skor 20-28/	3 (8.3%)	7 (14.0%)	8 (40.0%)	2 (50.0%)	
¹⁶ BDI skor ≥ 29/	0 (0.0%)	1 (2.0%)	3 (15.0%)	2 (50.0%)	

*Prema hi kvadrat testu ili Fisher-ovom testu/ According to hi square test or Fisher test;

- ¹ Niskorizično pijačnje/ Low Risk Drinking
- ² Rizično pijačnje/ Risky Drinking
- ³ Štetno pijačnje/ Harmful Drinking
- ⁴ Zloupotreba alkohola/ Alcohol Abuse
- ⁵ Odsustvo depresivnih tegoba/ Absence of depressive problems
- ⁶ Blago izražene depresivne tegobe/ Mild depressive problems
- ⁷ Umjereno izražene depresivne tegobe/ Moderate depressive problems
- ⁸ Ozbiljno izražene depresivne tegobe/ Severe depressive problems
- ⁹ Odsustvo anksioznih tegoba/ Absence of anxiety problems
- ¹⁰ Blago izražene anksiozne tegobe/ Mild anxiety problems
- ¹¹ Umjereno izražene anksiozne tegobe/ Moderate anxiety problems
- ¹² Ozbiljno izražene anksiozne tegobe/ Severe anxiety problems
- ¹³ Odsustvo somatskih tegoba/ Absence of somatic problems
- ¹⁴ Blago izražene somatske tegobe/ Mild somatic problems
- ¹⁵ Umjereno izražene somatske tegobe/ Moderate somatic problems
- ¹⁶ Ozbiljno izražene somatske tegobe/ Severe somatic problems

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Snežana B Knezević²

INFLUENCE OF ALCOHOL DRINKING FORMS ON DEVELOPMENT OF DEPRESSION, ANXIETY AND SOMATIC DISORDER IN THE AREA OF KRUPA NA UNI

Summary: Introduction: Alcohol consumption can lead to different psychiatric pathologies, both during maintenance of the addictive cycle and after abstinence is established.

Objective: The study aimed to examine the existence of a statistically significant association of drinking patterns alcohol with the intensity of anxiety, depression and somatic disorders in alcohol users.

Methods: The study was performed as a cross-sectional study at the Health Center Krupa na Uni in the period from 01.10.2018. to 01.06.2019. The sample consisted of 110 randomly selected patients consuming alcohol, 35 (31.8%) women and 75 (68.2%) men, with an average age of 51 ± 1.9 years. The survey used the following questionnaires: Alcohol Use Disorders Identification Test, Generalized Anxiety Disorder, Patient Health Questionnaire, Beck's Depression Inventory. The chi-square test was used in the data analysis.

Results: Low-risk drinking was verified in 36 (32.7%) of respondents, high-risk drinking in 50 (45.5%) of them. Harmful drinking was found in 20 (18.2%) of respondents, alcohol abuse in 4 (3.6%) of them. Symptoms of anxiety were 85 (77.3%) of respondents. The same number of subjects had somatic problems. 66 (60.0%) of the study participants were depressed. There was a statistically significant association of drinking patterns with the intensity of anxiety and depression ($p < 0.05$). In the case of somatic disorders, the same was not verified ($p > 0.05$)

Conclusion: The pattern of drinking alcohol is consistent with the intensity of anxiety disorders. Harmful drinking alcohol results in intense somatic distress, while alcohol abuse is not statistically significantly associated with the same. The intensity of depression is correlated with

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the pattern of drinking alcohol. The obtained results are in accordance with researchers from other countries.

Keywords: alcohol, anxiety, depression, somatic disorders.

INTRODUCTION

About 90% of people consume alcohol at some point in their lives. Alcohol abuse develops in 5-10%, while 10% of men and 3-5% of women become addicted to alcohol [1,2]. About 3.3 million of deaths occur each year as a result of alcohol use worldwide. Only in the United States, the cost of excessive alcohol consumption is estimated at 223.5 billion dollars [3].

Alcohol use affects all spheres of an individual's life (family, work and wider social environment). Long-term alcohol consumption can lead to the manifestation of various psychiatric pathologies, both during the maintenance of the addictive cycle and after the establishment of abstinence. Mental disorders occur as a consequence of:

(1) Direct causality (alcohol use makes the development of mental disorders more likely);

(2) Indirect causality (alcohol consumption through a third, mediating, variable increases the likelihood of developing a mental disorder;

(3) Common factors that simultaneously increase the risk of developing both disorders [4,5].

OBJECTIVE OF THE RESEARCH

The aim of the study was to determine:

1) The existence of a statistically significant association of alcohol consumption patterns with the intensity of anxiety;

2) The existence of a statistically significant association of alcohol consumption patterns with the intensity of somatic disorders;

3) The existence of a statistically significant association of alcohol consumption patterns with depression intensity.

MATERIAL AND METHODS

A research - a cross-sectional study was conducted on a sample of 110 respondents from the region Krupa na Uni in the period from 1th October 2018 to 1th June 2019. The research was approved by the Ethics Committee of Health Center Krupa na Uni. Criteria for inclusion of respondents in the study were anamnestic data on

alcohol consumption for at least twelve months, age between 20 and 79 years, completed primary school. Excluded from the study were people age over 79 and under 20, with alcohol consumption for less than twelve months, as well as all people with malignant and advanced chronic diseases (chronic renal failure, heart decompensation, liver failure). Data were collected through specific questionnaires.

A test to identify disorders caused by alcohol (Alcohol Use Disorders Identification Test-AUDIT) was developed and recommended by World Health Organization (WHO) for early identification of risky and harmful drinking as well as alcohol dependence. The test consists of three questions in the area of risky alcohol use (frequency of drinking, typical amount, frequency of heavy drinking), four questions in the area of harmful use of alcohol (guilt after drinking, amnesia, injuries due to alcohol consumption, environmental concerns) and three questions symptoms of addiction (decreased control over drinking, increased desire to drink, morning drinking) which we score 0 - 4. A score of 0 - 7 speaks in favor of low-risk drinking. The result in the interval 8 - 15 corresponds to risky drinking. Harmful drinking is present in patients with a score of 16 - 19. The sum of 20 - 40 reveals alcohol abuse [1,6].

The Generalized Anxiety Disorder (GAD-7) self-assessment questionnaire is used in primary health care to assess the presence and intensity of generalized anxiety disorder. It consists of seven questions that measure the severity of the symptoms of generalized anxiety disorder in the last two weeks. Depending on the patient's answer to the question, we score from 0 to 3. A score 0 - 4 is characteristic of healthy people without symptoms of anxiety. A score 5 - 9 speaks in favor of mildly pronounced symptoms of anxiety. If the score is between 10 and 14, the symptoms of anxiety are moderate. Severe symptoms of anxiety are present in patients with a score ≥ 15 [7,8,9].

The Patient Health Questionnaire (PHQ-15) contains 15 somatic problems that were rated 0 - 2 by patients depending on how much each of them interfered with their daily activities. The total score of the questionnaire for women was 0 - 30, while for men the score was 0 - 28. A score 0 - 4 indicated minimal somatic discomfort. Respondents with a score 5 - 9 had low somatic problems. The average intensity of somatic disorders is characterized by a score 10 - 14, while a score of 15 or more indicated serious somatic disorders [9,10].

Beck's Depression Inventory (BDI) is used as an indicator of the existence and intensity of depressive symptoms that are in line with the current Diagnostic and Statistical Manual of Mental Disorders (DSM). The second revised version is recommended by the American Psychiatric Association (APA) and is used today. It consists of 21 statements (each statement is a list of four statements ranked according to the intensity of a particular symptom of depression), which we score from 0 to 3. Depending on the total score, the questionnaire excludes the existence of depression (0 - 13), confirm mild depression (14 - 19), moderate (20 - 28), or severe depression (29-63) [11,12].

RESULTS

The study included 110 patients. Among them, there were 35 (31.8%) women and 75 (68.2%) men (Chart 1). The largest number of respondents who consume alcohol 75 (68.2%) are aged 40-59 years. The mean age of the examined population was 51 ± 1.9 years (Chart 2). Low-risk drinking was verified in 36 (37.2%) respondents, risky drinking in 50 (45.5%). Harmful drinking was found in 20 (18.2%) respondents, alcohol abuse in 4 of them (3.6%). Anxiety symptoms experienced 85 (77.3%) participants in the study (18.2% mildly pronounced symptoms of anxiety, 47.3% moderately pronounced symptoms of anxiety, 11.8% severely expressed symptoms of anxiety). Somatic ailments had 85 (77.3%) respondents (30.0% mild somatic ailments, 39.1% moderate somatic ailments, 8.2% severe somatic ailments). Depression symptoms were found in 66 (60.0%) respondents (36.4% mild depressive symptoms, 18.2% moderate depressive symptoms and 5.4% severe depressive symptoms). Severe symptoms of anxiety had 75.0% respondents who abused alcohol, 40.0% of respondents with harmful drinking, 2.0% respondents with risky drinking and 2.8% respondents with low-risk drinking. The study verified the existence of a statistically significant effect of drinking patterns on the intensity of anxiety disorders in study (p < 0.05). Severe somatic problems had 11.1% respondents with low-risk drinking, 8.0% respondents with risky drinking and 5.0% of respondents with harmful drinking had. The study did not verify the existence of a statistically significant effect of drinking patterns on the intensity of somatic disorders in study participants (p > 0.05). Severe anxiety symptoms had 50.0% respondents who abused alcohol, 15.0% of respondents with harmful drinking and 2.0% of respondents with risky drinking. The study verified statistically significant effect of drinking patterns on the intensity of depressive disorders in study (p < 0.05).

DISCUSSION

The comorbidity of alcohol use and mental disorders is complex and still insufficiently researched. Consumption of alcohol disrupts neurohumoral and psychological homeostasis and encourages the development of mental disorders. It affects the concentration of tryptophan, N-methyl-D aspartate, homovalic acid, γ -amino butyric acid and endogenous opioids. It has a negative effect on cognitive functions, contributes to feelings of inferiority, guilt and hopelessness, disrupts interpersonal relationships, induces delinquency [11,13].

On the other hand, alcohol abuse is often the results of self-medication for mental disorders. People with mental disorders consume alcohol in an attempt to alleviate discomfort, reduce tension and dampen a stress response. Genetic factors and vulnerability of a person play a significant role in the comorbidity of alcoholism and mental

disorders. Literature data indicate a statistically significantly more frequent presence of this comorbidity in certain families or twin populations [11,13]. The research detected a high degree of comorbidity of alcohol use and anxiety disorder. Anxiety symptoms were present in 77.3% of participants (18.2% mild pronounced symptoms of anxiety, 47.3% moderate pronounced symptoms of anxiety, 11.8% severe symptoms of anxiety). The intensity of the anxiety was in line with the drinking pattern. A study in India found mild anxiety in 60% of patients hospitalized due to excessive alcohol consumption [14]. A multicenter study in Germany verified the existence of anxiety in 42.3% of patients hospitalized in 25 alcoholism treatment centers [15].

Studies conducted in Brazil have detected axiosis in 23 - 70% of alcohol-dependent patients. According to studies, drug therapy for anxiety significantly prolongs the time required to develop alcohol dependence [16]. Research by a group of authors from the United Kingdom has detected anxiety as an independent risk factor in the development of alcohol use disorders. It also indicates that drug therapy for anxiety leads to a significant reduction in drinking [17]. Studies conducted in the United States have found anxiety in 60% of patients who consume alcohol. They found that the presence of intense anxiety increased the risk of alcohol dependence by 20 times [18,19]. A study by a group of authors from the Netherlands detected alcohol dependence in 20.3% of patients with anxiety disorder (compared to 5.5% in the control group). In contrast, the prevalence of alcohol abuse in anxious patients was not statistically significantly higher compared to the control group [20]. In this study, 77.3% of participants had somatic ailments (30.0% mild somatic ailments, 39.1% moderate somatic ailments and 8.2% severe somatic ailments). The highest intensity of somatic problems was verified in subjects with harmful alcohol consumption. Subjects with alcohol abuse had moderate somatic distress. Research by European and American authors has reached similar conclusions. A study by authors from Germany found somatic ailments in 13.8% of men and 33.3% of women who consumed alcohol. According to the same study, daily consumption of 30 g of ethanol for men and 20 g of ethanol for women carried a statistically significantly higher risk of developing somatic problems compared to drinking smaller amounts of alcohol. A group of authors from the United States detected a low rate of somatic disorders, only 7.4%, in people with alcohol abuse. Similar results were obtained in studies conducted in Canada which did not verify a statistically significant association between alcohol abuse and somatic ailments. On the other hand, they found that consuming 7 alcoholic beverages a day for 2 weeks carried a statistically significantly higher risk of developing somatic ailments compared to drinking moderate amounts of alcohol [21,22]. The study found the presence of depressive symptoms in 60.0% of people who consumed alcohol (36.4% mild depressive depressive symptoms, 18.2% moderate depressive symptoms, and 5.4% severe depressive symptoms). The pattern of alcohol consumption is closely related to the intensity of depressive disorders. A study by a

group of authors from Kenya verified secondary depression in 68.3% of people who consume alcohol [23]. A study by a group of authors in Nepal found depression in 41.7% of people hospitalized for alcohol use [24]. Studies conducted in England have confirmed the existence of moderate depression in 47% of people diagnosed with alcoholism, while 34% had severe depressive disorders [25]. American authors found that men who drank 14 - 27 alcoholic beverages per week and women who drank 7 - 13 alcoholic beverages per week had a significantly higher presence of depression compared to those who drank less alcohol [26].

The obtained results of the research are in accordance with the mentioned researches from other countries, which confirms the fact that alcoholism and comorbid mental disorders are a global public health problem. There is a consensus of the authors that the presence of mental disorders can significantly affect the course and outcome of treatment of alcoholics, and therefore their screening should become a routine part of clinical practice.

CONCLUSION

The pattern of drinking alcohol is in accordance with the intensity of anxiety problems. Harmful drinking of alcohol results in intense somatic problems, while alcohol abuse is not statistically significantly associated with it. The intensity of depressive disorders is in accordance with the pattern of drinking alcohol.

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Figure 1. Participants gender
N = 110

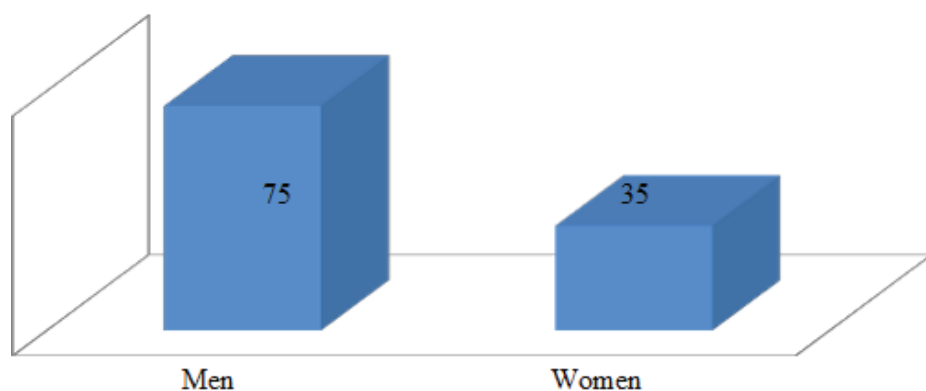


Figure 2. Participants years
N = 110

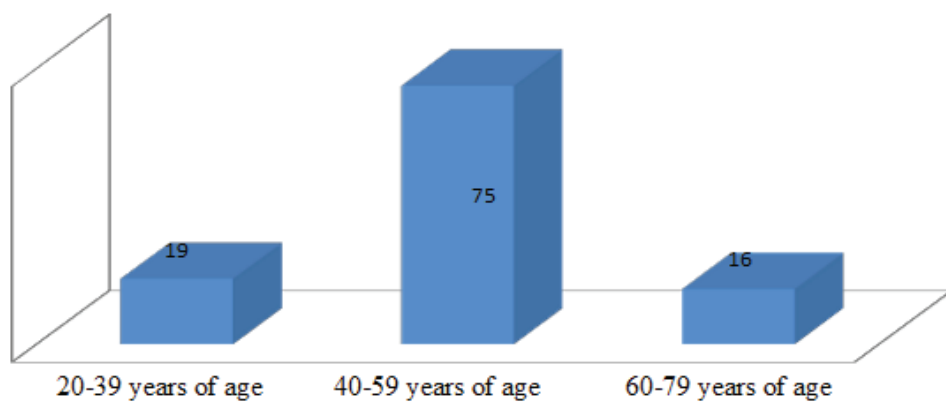


Figure 3. Alcohol drinking pattern of participants in the study according to AUDIT Questionnaire

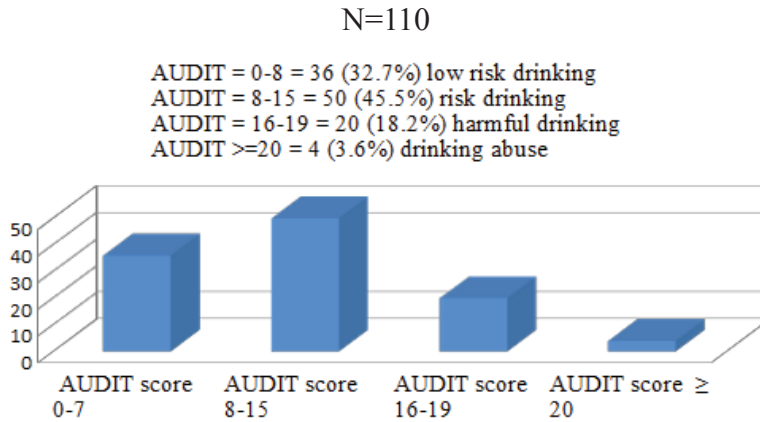


Figure 4. Intensity of anxiety of participants in the study according to questionnaire GAD-7

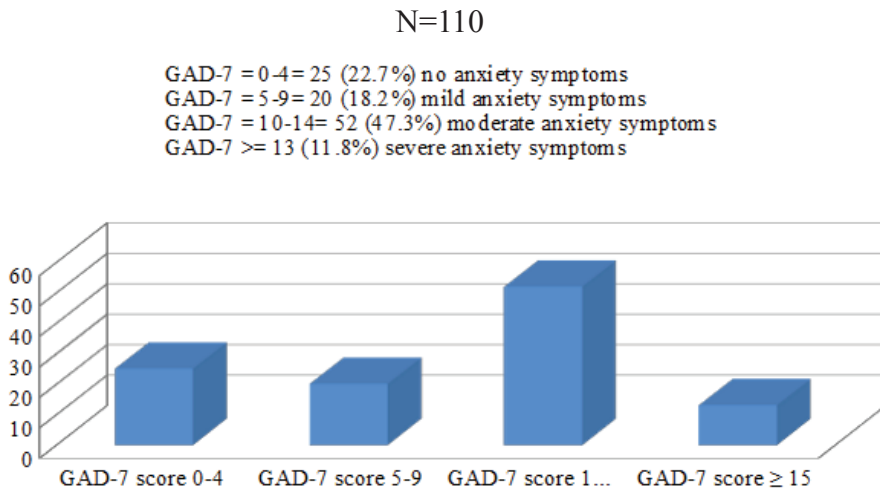


Figure 4. Intensity of somatic difficulties of the participants in the study according to the PHQ-15 questionnaire

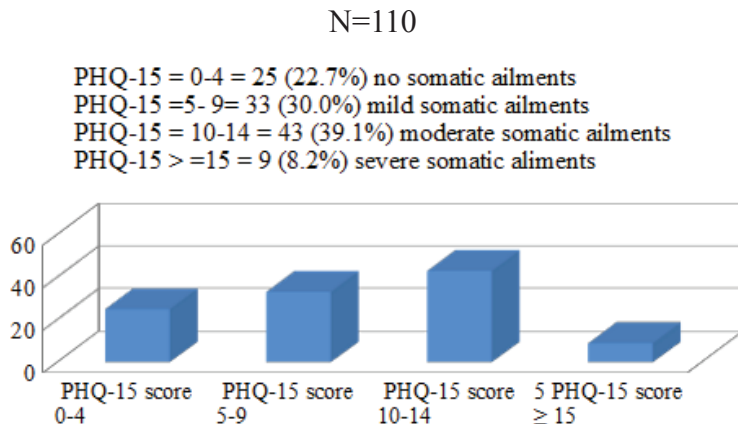


Figure 4. Intensity of depressive disorders of participants in the study according to BDI Questionnaire

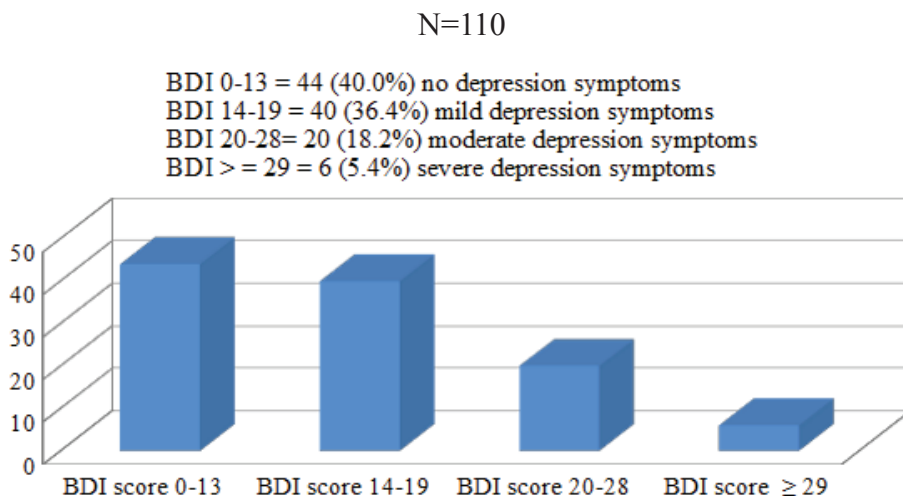


Table 1. Intensity Relationship between Depression, Anxiety, and Somatic Disorders by Beck's Depression Inventory Index, Generalized Anxiety Disorder Index, and Patient Health Questionnaire Index and alcohol drinking form by Alcohol Use Disorders Drinking Identification Test Index

Characteristics	¹ AUDIT score 0-8	² AUDIT score 8-15	³ AUDIT score	⁴ AUDIT score ≥ 20	*p value
⁵ GAD score 0-4	12 (33.3%)	12 (24.0%)	1 (5.0%)	0 (0.0%)	< 0.05
⁶ GAD -7 score 5-9	12 (33.3%)	6 (12.0%)	2 (10.0%)	0 (0.0%)	
⁷ GAD -7score 10-14	11 (30.6%)	31 (62.0%)	9 (45.0%)	1 (25.0%)	> 0.05
⁸ GAD score ≥ 15	1 (2.8%)	1 (2.0%)	8 (40.0%)	3 (75.0%)	
⁹ PHQ-15 score 0-4	8 (22.2%)	16 (32.0%)	1 (5.0%)	0 (0.0%)	> 0.05
¹⁰ PHQ-15 score 5-9	18 (50.0%)	13 (26.0%)	12 (60.0%)	0 (0.0%)	
¹¹ PHQ-15 score 10-14	6 (16.7%)	17 (34.0%)	6 (30.0%)	4 (100%)	> 0.05
¹² PHQ-15 score ≥ 15	4 (11.1%)	4 (8.0%)	1 (5.0%)	0 (0.0%)	
¹³ BDI score 0-13	20 (55.6%)	22 (44.0%)	2 (10.0%)	0 (0.0%)	< 0.05
¹⁴ BDI score 14-19	13 (36.1%)	20 (40.0%)	7 (35.0%)	0 (0.0%)	
¹⁵ BDI score 20-28	3 (8.3%)	7 (14.0%)	8 (40.0%)	2 (50.0%)	< 0.05
¹⁶ BDI score ≥29	0 (0.0%)	1 (2.0%)	3 (15.0%)	2 (50.0%)	

* According to hi square test or Fisher test;

- ¹ Low Risk Drinking
- ² Risky Drinking
- ³ Harmful Drinking
- ⁴ Alcohol Abuse
- ⁵ Absence of depressive problems
- ⁶ Mild depressive problems
- ⁷ Moderate depressive problems
- ⁸ Severe depressive problems
- ⁹ Absence of anxiety problems
- ¹⁰ Mild anxiety problems
- ¹¹ Moderate anxiety problems
- ¹² Severe anxiety problems
- ¹³ Absence of somatic problems
- ¹⁴ Mild somatic problems
- ¹⁵ Moderate somatic problems
- ¹⁶ Severe somatic problems