



ORIGINAL ARTICLE

Investigation of Depression Level and Its Relationship with Some Sociodemographic Characteristics in Homosexual and Bisexual Men

Eşcinsel ve Biseksüel Erkeklerde Depresyon Düzeyi ve Bazı Sosyodemografik Özelliklerle İlişkisinin İncelenmesi

 Ümit Atasever

Kocaeli Vocational School of Health Services, First and Emergency Aid Program, Kocaeli, Türkiye

Abstract

Introduction: Studies have found that sexual minorities, including gay and bisexual men, have more mental health problems than the heterosexual population. The aim of this study is to examine the prevalence of depression in gay and bisexual men and its relationship with some socio-demographic variables.

Methods: Participants were recruited from groups on social media such as “Facebook,” “Instagram,” and an LGBT app. Only homosexual and bisexual men were included in the study. Each participant completed the personal information form and the Beck Depression Inventory.

Results: It was found that 28.7% of the 418 homosexual and bisexual men included in the study had mild depression, 29.7% had moderate depression, and 9.1% had severe depression. No statistically significant difference was found between the depression rates of homosexual and bisexual men.

Discussion and Conclusion: At the end of the study, it was determined that the rate of depression in homosexual and bisexual men was higher than in the general population. Smoking, alcohol, and substance abuse rates are also higher in this group than in the general population. The limitations of this study are that only gay and bisexual men were included in the study, and there was no control group.

Keywords: Depression; LGBT; Mental health; Sexual orientation; Smoking

Depression affects approximately 280 million people worldwide and is identified as one of the leading causes of disability.^[1] The prevalence of depression in the general population in Türkiye varies between 10% and 20%.^[2]

Depression was found to be the first among the most common diagnoses in patients who applied to health institutions.^[3] In a study conducted with the World Health Organization in Türkiye, depression was seen in 11.6% of

Cite this article as: Atasever Ü. Investigation of Depression Level and Its Relationship with Some Sociodemographic Characteristics in Homosexual and Bisexual Men. *Lokman Hekim Health Sci* 2023;3(3):193–200.

Correspondence: Ümit Atasever, M.D. Kocaeli Sağlık Hizmetleri Meslek Yüksekokulu, İlk ve Acil Yardım Programı, Kocaeli, Türkiye

E-mail: umit.atasever@kocaeli.edu.tr **Submitted:** 19.01.2023 **Revised:** 14.02.2023 **Accepted:** 24.02.2023

OPEN ACCESS This is an open access article under the CC BY-NC license (<http://creativecommons.org/licenses/by-nc/4.0/>).



patients admitted to the hospital for any reason, and this rate was the second-most common diagnosis after upper respiratory tract infection.^[4]

A single risk factor cannot fully explain the occurrence of depression. The focus is on genetic structure, adverse environmental factors, and timing for risk factors in depression. It is stated that people with low self-esteem, a strong superego, who are dependent on interpersonal relations and unable to establish mature and continuous object relations are more prone to depression.^[5]

Sexual orientation refers to the nature of emotional and sexual attraction to others. Homosexual refers to men or women who are emotionally and sexually oriented towards those of the same sex; male homosexuals are called "gay" and female homosexuals are called "lesbians." A bisexual is a man or woman who has an emotional, erotic, and sexual orientation toward both their own sex and the opposite sex.^[6]

In the Universal Declaration of Human Rights, it is stated that all human beings should be born free and equal in dignity and rights and that everyone should be able to enjoy rights without distinction of any kind, such as race, color, sex, language, religion, political or other opinion, national or social origin, property, birth, or other.^[7] However, in many countries of the world, LGBT individuals are not generally accepted by society; they may be exposed to many practices that include prejudice and discrimination, such as exclusion, harassment, condemnation, and employment as a sex worker.^[6]

Discrimination and negative attitudes expose lesbian, gay, and bisexual individuals to many health problems, such as depression, anxiety, trauma, stress, substance abuse, and social isolation.^[8] In a study conducted with 106 gay, bisexual, and transgender individuals in Türkiye, it was reported that participants were exposed to many forms of discrimination in their families, social lives, and workplaces.^[9] The researchers reported that they were exposed to discrimination and negative attitudes, mostly through looks and gestures, in their relations with the police, in courts, in religious places, and in hospitals, up to insults and denial of service.^[9]

Researchers have found that sexual minorities, including gay and bisexual men, have more mental health problems than the heterosexual population.^[10]

When this information is evaluated together, additional studies are needed in this field due to the high risk of mental health disorders in gay and bisexual men, the inadequacy of studies in this area in our country, and the insufficient number of people in the current studies. Therefore, the aim

of this study is to examine the prevalence of depression in gay and bisexual men and its relationship with some socio-demographic variables.

Materials and Methods

Study Design

This study was designed as a descriptive study to examine the level of depression in gay and bisexual men and its relationship with some sociodemographic variables.

Participants

The study included those who were 18 years of age or older, gay and bisexual men, those who were literate in Turkish, and those who agreed to participate in the study. Persons other than those meeting these criteria and transgender men were not included in the study. In line with these criteria, a total of 418 people agreed to participate in the study and filled out the required forms.

Procedures

Participants who met the inclusion criteria filled out an online questionnaire generated from Google Forms. Participants were recruited from LGBT pages and groups on social media such as "Facebook," "Instagram," and a frequently used application with an LGBT social network. Individuals who met the inclusion criteria were sent messages stating the purpose of the research. Then, an informed consent form was sent to these people, and they were asked to read it. After reading the informed consent form, people who stated that they wanted to participate in the study completed online questionnaires. Each participant filled out a personal information form (PIF) consisting of 12 questions and the Beck Depression Inventory (BDI) consisting of 21 questions. The PIF included socio-demographic characteristics of individuals and questions about sexual orientation. Surveys created online are designed to give a warning when you leave blank questions. Thus, it was ensured that the participants answered all the questions completely. In the study, data were collected using the purposeful sampling method. No fee was paid to the participants.

Ethical Approval

Before starting the research, approval was obtained from the Human Research Ethics Committee of Abant İzzet Baysal University (Protocol number: 2021/59). Informed consent was obtained online from the participants, who were included in the study through social media and LGBT dating applications, before starting the study.

Measures

PIF

PIF has been prepared to learn some socio-demographic characteristics of individuals and some information about sexual orientation. The form includes questions such as age, sexual orientation, educational status, marital status, employment status, perceived economic status, smoking and alcohol use, and substance abuse. It is a survey with a total of 12 questions.

BDI

The BDI was designed by Beck et al.,^[11] in 1961 to measure the severity of depression, monitor changes after treatment, and diagnose depression. The Turkish validity and reliability study was carried out by Hisli in 1989. The Cronbach alpha value of the scale was found to be 0.80.^[12] The scale, consisting of 21 items, measures the cognitive, emotional, behavioral, somatic, and motivational symptoms of depression.^[13] The fact that the BDI is completed by the patient himself or herself, does not require special training, has an easy-to-understand and simple language, and is practical in scoring are important features that contribute to its frequent use. The cutoff point of the Turkish scale was determined to be 17.^[12]

Statistical Analysis

All statistical analyses were performed using IBM SPSS for Windows version 21.0 (IBM Corp., Armonk, NY, USA). Categorical variables were expressed as counts and percentages. Comparisons of categorical variables between the groups were performed using the Fisher’s exact chi-square test, Yates’ chi-square, Pearson chi-square test, and Monte Carlo chi-square test. A two-sided $p < 0.05$ was considered statistically significant.

Results

The age distributions of the 418 people participating in the study are as follows: 34.0% are 18–25, 32.5% are 26–35, and 33.5% are 36 and above. Their sexual orientation: 67.0% are homosexual, and 33.0% are bisexual. Educational status: 32.0% are primary and high school graduates, and 68.0% are university graduates. Marital status: 81.3% are single, 12.5% are married, and 6.2% are divorced or widowed. Working situations: 71.3% were working, 27.7% were not. Their economic situation (perceived): 11.0% of them were low, 47.9% of them were moderate, 34.9% of them were good, and 6.2% of them were very good. 48.8% of the participants do not smoke. 37.3% do not use alcohol. 7.7% of

Table 1. Demographic characteristics of participants (n=418)

Characteristics	n	%
Age		
18–25	142	34.0
26–35	136	32.5
36 and above	140	33.5
Sexual orientation		
Homosexual	280	67.0
Bisexual	138	33.0
Education status		
Primary and high school graduate	134	32.0
Graduated from a University	284	68.0
Marital status		
Single	340	81.3
The married	52	12.5
Divorced	26	6.2
Employment status		
Employee	298	71.3
Unemployed	120	28.7
Economical situation		
Low	46	11.0
Middle	200	47.9
High	146	34.9
So high	26	6.2
Smoking		
Not using	204	48.8
Using less than 10 per day	56	13.4
Using between 10 and 20 per day	104	24.9
Using more than 20 per day	54	12.9
Do you use alcohol		
Not using	156	37.3
Using at most once a month	142	34.0
Using at most once a week	74	17.7
Using more than once a week	46	11.0
Substance abuse		
Not using	386	92.3
Using	32	7.7
Would you describe yourself as a social person		
I’m not a social person	32	7.7
I’m a normal social person	274	65.5
I am a very social person	112	26.8
Does your family know your sexual orientation		
Yes	88	21.1
No	330	78.9
Have you ever received psychological support because of your sexual orientation?		
Yes	81	19.4
No	337	80.6

the participants use substances. Participants themselves: 7.7% define it as not social, 65.5% as normal-level social, and 26.8% as very social. The families of 21.1% of the participants knew about their sexual orientation. 19.4% of the participants had previously received psychological support regarding their sexual orientation (Table 1).

It was found that 28.7% of the 418 homosexual and bisexual men included in the study had mild depression, 29.7% had moderate depression, and 9.1% had severe depression. In addition, no statistically significant difference was found between the rates of depression in homosexual and bisexual men. There was no statistically significant difference between the individual's sexual orientation, the knowledge of his family, and the rate of depression ($p=0.051$). However, the moderate depression rate of those whose sexual orientation is known by their family (22.7%) is lower than that of those who do not (31.5%). A statistically significant difference was found between age and depression rate ($p<0.05$). Moderate depression is less common in the 18–25 age group compared to other groups. However, severe depression is more common in this age group than in others. There was no statistically significant difference between marital status and depression rates. However, the rate of mild and severe depression is higher in divorced and widowed individuals (46.2% and 7.7%, respectively) than in single (27.1% and 10.0%, respectively) and married (30.8% and 3.8%, respectively) individuals. There was no statistically significant difference between education status and depression rate. When the relationship between working status and depression was examined, no statistically significant difference was found ($p=0.052$). However, severe depression was less common in working men (6.7%) than in non-working men (15.0%). A statistically highly significant difference was found between the economic status and the depression rate ($p<0.001$). Those with low economic status (26.1%) have a significantly higher rate of severe depression than those with moderate (8.0%), good (5.5%), or very good (7.7%) economic status. A statistically significant difference was found between the rate of alcohol use and the rate of depression. Mild and moderate depression rates (32.1% and 33.3%, respectively) of non-alcoholics were higher than those who used alcohol (28.7% and 24.5%, respectively). The severe depression rate (7.7%) of non-drinkers was lower than that of those who used alcohol (11.3% and 13.5%, respectively). When the relationship between sexual orientation and alcohol use rate is examined, there is a statistically significant difference between sexual orientation and alcohol and substance abuse. The rate of homosexual men (65.0%) who drink alcohol is higher than that

of bisexual men (58.0%). Likewise, the rate of homosexual men (10.0%) who use drugs is higher than that of bisexual men (2.9%). When the relationship between smoking and depression was examined, no statistically significant difference was found. When the relationship between substance abuse and depression was examined, no statistically significant difference was found. A statistically highly significant difference was found between the individual's social status and the rate of depression ($p<0.001$). Those who do not define themselves as social (50.0% and 18.8%, respectively) are significantly higher than those who describe themselves as normal (32.1% and 17.9%, respectively) and very social (17.9% and 1.8%, respectively). According to the results of the study, there was no statistically significant difference between the status of receiving psychological support about one's sexual orientation and the rate of depression (Table 2).

Discussion

Homosexual and bisexual individuals, whose sexual orientation is different from the general population, can be pushed into a disadvantageous position by being exposed to negative attitudes in their lives. Researchers have found that sexual minorities, including gay and bisexual men, have more mental health problems than the heterosexual population.^[10] In many previous studies, it has been determined that male homosexuals experience higher levels of depression than male heterosexuals.^[14–16] However, the number of studies and data in this area are limited. Therefore, we investigated the rate of depression in homosexual and bisexual men in Türkiye. In addition, we compared depression rates with some socio-demographic characteristics. As a result of our study, the rate of depression in homosexual and bisexual men was higher than in the general population. In addition, there was no significant difference in depression between homosexual and bisexual men. However, according to a 2016 Canadian study, the lifetime rate of major depressive disorder in bisexual men is higher than in gay men.^[17]

Being able to talk about one's sexual orientation is beneficial for one's well-being and mental health. On the other hand, it was stated that individuals who hide their sexual orientation experience more mental and physical health problems than individuals who are open about their sexual identities.^[18] In the current study, no statistically significant difference was found between the family's knowledge of the individual's sexual orientation and the rate of depression. However, the moderate depression rate of those whose sexual orientation was known by their family was lower than that of

Table 2. Comparison of beck depression inventory results with sociodemographic variables

Characteristics	Total n=418 (%)	BDI score				p	Chi-square value
		0–9 (normal) n=136 (%)	10–16 (low) n=120 (%)	17–29 (middle) n=124 (%)	30 and above (high) n=38 (%)		
Age (range)							
18–25	142 (34.0)	48 (33.8)	46 (32.4)	28 (19.7)	20 (14.1)	0.007	17.828
26–35	136 (32.5)	48 (35.3)	32 (23.5)	50 (36.8)	6 (4.4)		
36 and above	140 (33.5)	40 (28.6)	42 (30.0)	46 (32.9)	12 (8.6)		
Sexual orientation						0.192	4.811
Homosexual	280 (67.0)	90 (32.1)	84 (30.0)	76 (27.1)	30 (10.7)		
Bisexual	138 (33.0)	46 (33.3)	36 (26.1)	48 (34.8)	8 (5.8)		
Educational status						0.823	0.92
Primary and high school	134 (32.0)	40 (29.9)	42 (31.3)	40 (29.9)	12 (9.0)		
University and graduate	284 (68.0)	96 (33.8)	78 (27.5)	84 (29.6)	26 (9.2)		
Marital status						0.115	10.187
Single	340 (81.3)	110 (32.4)	92 (27.1)	104 (30.6)	34 (10.0)		
Married	52 (12.5)	16 (30.8)	16 (30.8)	18 (34.6)	2 (3.8)		
Divorced/Widowed	26 (6.2)	10 (38.5)	12 (46.2)	2 (7.7)	2 (7.7)		
Working status						0.052	7.814
Working	298 (71.3)	96 (32.2)	90 (30.2)	92 (30.9)	20 (6.7)		
Not working	120 (28.7)	40 (33.3)	30 (25.0)	32 (26.7)	18 (15.0)		
Economical situation						0.000	38.102
Low	46 (11.0)	10 (21.7)	8 (17.4)	16 (34.8)	12 (26.1)		
Middle	200 (47.9)	54 (27.0)	56 (28.0)	74 (37.0)	16 (8.0)		
Good	146 (34.9)	62 (42.5)	48 (32.9)	28 (19.2)	8 (5.5)		
Very good	26 (6.2)	10 (38.5)	8 (30.8)	6 (23.1)	2 (7.7)		
Smoking						0.892	4.376
Not using	204 (48.8)	66 (32.4)	58 (28.4)	60 (29.4)	20 (9.8)		
Less than 10 a day	56 (13.4)	20 (35.7)	16 (28.6)	16 (28.6)	4 (7.1)		
Between 10 and 20 per day	104 (24.9)	34 (33.8)	30 (28.8)	28 (26.9)	12 (11.5)		
More than 20 per day	54 (12.9)	16 (29.6)	16 (29.6)	20 (37.0)	2 (3.7)		
Alcohol use (frequency)						0.012	21.095
Not using	156 (37.3)	42 (26.9)	50 (32.1)	52 (33.3)	12 (7.7)		
No more than 1 time per month	142 (34.0)	46 (32.4)	36 (25.4)	44 (31.0)	16 (11.3)		
Maximum 1 time per week	74 (17.7)	26 (35.1)	16 (21.6)	22 (29.7)	10 (13.5)		
More than once a week	46 (11.0)	22 (47.8)	18 (39.1)	6 (13.0)	0		
Substance use						0.129	5.688
Yes	32 (7.7)	6 (18.8)	10 (31.3)	10 (31.3)	6 (18.8)		
No	386 (92.3)	130 (33.7)	110 (28.5)	114 (29.5)	32 (8.3)		
State of being social						0.000	36.554
Not a social person	32 (7.7)	4 (12.5)	6 (18.8)	16 (50.0)	6 (18.8)		
Normally social	274 (65.5)	78 (28.5)	78 (28.5)	88 (32.1)	30 (10.9)		
Very social ones	112 (26.8)	54 (48.2)	36 (32.1)	20 (17.9)	2 (1.8)		
Does his family know about his sexual orientation?						0.449	2.686
Yes	88 (21.1)	32 (36.4)	28 (31.8)	20 (22.7)	8 (9.1)		
No	330 (78.9)	104 (31.5)	92 (27.9)	104 (31.5)	30 (9.1)		
Getting psychological support about sexual orientation						0.157	5.27
Yes	81 (19.4)	28 (34.6)	18 (22.2)	23 (28.4)	12 (14.8)		
No	337 (80.6)	108 (32.0)	101 (30.0)	102 (30.3)	26 (7.7)		

BDI: Beck Depression Inventory.

those who did not. The researchers found that the parent's lack of support or response after disclosure increased the risk of depression in LGB individuals. In other words, the attitude of the person or people to whom the person speaks openly about their sexual identity is also important in this respect. Depending on the situation, the opening process can be considered as a protective or risk factor.^[19]

In the current study, we found a statistically significant difference between age and the rate of depression. While moderate depression is less common in the 18–25 age group compared to other groups, severe depression is more common in this age group. According to Lunn et al.'s^[20] study, it was found that general and mental health disorders increased with increasing age. The reason for this can be explained as increased emotionality secondary to mental or physical health problems that occur in older ages.

Another problem LGBT individuals face is not being able to find a job or being fired from their current job. Previous research reports that between 42 and 68% of LGBT individuals face discrimination in employment.^[21] It has been frequently reported in many publications, both in Türkiye and internationally, that these people are exposed to situations such as being mocked and harassed by their colleagues, even if they find a job.^[9,19,22] Stigma in the workplace is around 80%.^[22] In the current study, 28.7% of the participants reported that they did not work. When the relationship between working status and depression was examined, no statistically significant difference was found. However, severe depression was less common in working men than in unemployed men. This is probably due to the anxiety of finding a job.

A statistically significant difference was found between individuals' perceived economic status and the rate of depression. The rate of severe depression in those with low economic status is significantly higher than that of those with moderate, good, or very good economic status. Similarly, Oginni et al.,^[23] reported that gay students who stated that they were working to complete their monthly pocket money were more likely to become depressed. Lunn et al.,^[20] also reported that high-income LGB individuals had better mental health.

Gay and bisexual individuals are frequently discriminated against at school, in the family, and at work. Due to these negative attitudes, efforts to hide their identities, and other negative factors, these individuals tend to use cigarettes, alcohol, and drugs. In many studies, the rate of smoking, alcohol, and substance abuse was found to be higher in homosexual individuals than in heterosexual individuals.^[24–27] The present study found its results to be in agreement with other studies. According to the results

of the current study, the rates of smoking, alcohol, and substance abuse among gay and bisexual men are higher than those in the general population.^[28–30] In addition, according to the results of the study, a statistically significant difference was found between the rate of alcohol use and the rate of depression. The mild and moderate depression rates of participants who do not drink alcohol were higher than those who used alcohol, while the severe depression rate was lower than those who use alcohol.

LGBT individuals are excluded from social life due to negative attitudes such as discrimination, hate speech, peer bullying, homophobia, and biphobia they are exposed to at home, at work, and on the street. Exclusion of this group, which is already at risk for mental disorders, from their social circles facilitates the emergence of psychiatric symptoms.^[31] In a study evaluating the effects of social support and mental health in the LGBTQ adolescent population, the author found that a lack of social support was associated with higher levels of depression, anxiety, alcohol or drug use, risky sexual behaviors, shame, and low self-esteem.^[32] As a result of current study, a statistically highly significant difference was found between being social and the rate of depression ($p < 0.001$). The rate of moderate and severe depression among those who do not define themselves as social is significantly higher than that of those who describe themselves as normal and very social.

There was no statistically significant difference between the status of receiving psychological support due to sexual orientation and the rate of depression. As a result of the study by Eltekin and Karairmak^[33] (2019), it was observed that those who had the experience of applying to a mental health professional due to any emotional difficulties related to their sexual orientation experienced more negative processes such as acceptance anxiety, internalized homophobia, difficult processes, social stigma, and internalized stigma. In this case, it can be assumed that the participants who experienced more negative incidents of minority identity consulted a mental health professional.

Limitations

This study was conducted to examine the relationship between some socio-demographic characteristics and the depression levels of gay and bisexual men in Türkiye. The study has some limitations. Only gay and bisexual men, but not all sexual minorities, were included in the study. Since there were no heterosexual men in the study, a comparison could not be made. Despite this, it is one of the rare studies with LGBT individuals in Türkiye with a high number of participants.

Conclusion

As a result of the study, the rate of depression in gay and bisexual men included in the study is higher than in the general population. The smoking, alcohol, and substance abuse rates of the participants were also higher compared to the general population. In their normal lives, the depression rates of non-social individuals are higher than those of social individuals. The depression rate of participants with good economic status is lower than that of those with poor economic status.

When these results are evaluated together, it can be assumed that gay and bisexual men are at higher risk for depression. These individuals may be more prone to forming harmful habits due to depression. These people may be pushed toward more exclusion and asociality due to their individual differences. Therefore, homosexual and bisexual men can be given priority in preventive mental health services. In future studies, it is recommended that more comprehensive studies be conducted with all LGBT individuals.

Peer-review: Externally peer-reviewed.

Ethics Committee Approval: The Bolu İzzet Baysal University Human Research Ethics Committee Ethics Committee granted approval for this study (date: 01.03.2021, number: 2021/59).

Conflict of Interest: None declared.

Financial Disclosure: The author declared that this study received no financial support.

References

- Vos T, Lim SS, Abbafati C, Abbas KM, Abbasi M, Abbasifard M, et al; GBD 2019 Diseases and Injuries Collaborators. Global burden of 369 diseases and injuries in 204 countries and territories, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019. *Lancet* 2020;396(10258):1204–22. [CrossRef]
- Bekaroğlu M, Uluutku N, Tanriöver S, Kirpınar I. Depression in an elderly population in Turkey. *Acta Psychiatr Scand* 1991;84(2):174–8. [CrossRef]
- Katon W. Depression: somatic symptoms and medical disorders in primary care. *Compr Psychiatry* 1982;23(3):274–87. [CrossRef]
- Rezaki M: Bir sağlık ocağına başvuran hastalarda depresyon. *Türk Psikiyatri Dergisi* 1995;6(1):13–20.
- American Psychological Association. Sexual orientation, gender, identity and socioeconomic status factsheet. 2017. Available at: <https://www.apa.org/pi/ses/resources/publications/factsheetlgbt.pdf> Accessed Aug 28, 2021.
- Mete A, Özerdoğan N. The evaluation of the knowledge, opinions and attitudes among the students of midwifery department about LGBTs (lesbian, gay, bisexual, transgender) STED 2019;28(3):163–71.
- Universal Declaration of Human Rights [UDHR]. 1948. Available at: https://www.ohchr.org/sites/default/files/UDHR/Documents/UDHR_Translations/eng.pdf Accessed Aug 28, 2021.
- Kaptan S, Yüksel Ş. Homosexuals, social exclusion and mental health. *Toplum ve Hekim* 2014; 29(4):259–65.
- Göregenli M. LGBT bireylerin gündelik yaşamda karşılaştıkları ayrımcılık. İstanbul: Ayrıntı Yayınları;2011.
- Scott RL, Lasiuk GC, Norris CM. Depression in lesbian, gay, and bisexual members of the Canadian Armed Forces. *LGBT Health* 2016 (5):366–72. [CrossRef]
- Beck AT, Ward CH, Mendelson M, Mock J, Erbaugh J. An inventory for measuring depression. *Arch Gen Psychiatry* 1961;4:561–71. [CrossRef]
- Hisli N. A reliability and validity study of Beck Depression Inventory in a university student sample. *Psikoloji Derg* 1989;7:3–13.
- Kılınç S, Torun F. Depression Rating Scales Used in Clinical Practice in Turkey. *Dirim Tıp Derg* 2011;86(1):39–47.
- Fergusson DM, Horwood LJ, Beautrais AL. Is sexual orientation related to mental health problems and suicidality in young people? *Arch Gen Psychiatry* 1999;56(10):876–80. [CrossRef]
- Marshal MP, Dietz LJ, Friedman MS, Stall R, Smith HA, McGinley J, et al. Suicidality and depression disparities between sexual minority and heterosexual youth: a meta-analytic review. *J Adolesc Health* 2011;49(2):115–23. [CrossRef]
- Plöderl M, Tremblay P. Mental health of sexual minorities. A systematic review. *Int Rev Psychiatry* 2015;27(5):367–85. [CrossRef]
- Scott RL, Lasiuk G, Norris CM. Sexual orientation and depression in Canada. *Can J Public Health* 2017;107(6):e545–9. [CrossRef]
- American Psychological Association. Answers to your questions: For a better understanding of sexual orientation and homosexuality. Available at: www.apa.org/topics/orientation.pdf Accessed Aug 26, 2021.
- Rothman EF, Sullivan M, Keyes S, Boehmer U. Parents' supportive reactions to sexual orientation disclosure associated with better health: results from a population-based survey of LGB adults in Massachusetts. *J Homosex* 2012;59(2):186–200. [CrossRef]
- Lunn MR, Cui W, Zack MM, Thompson WW, Blank MB, Yehia BR. Sociodemographic characteristics and health outcomes among lesbian, gay, and bisexual U.S. adults using healthy people 2020 leading health indicators. *LGBT Health* 2017;4(4):283–94. [CrossRef]
- American Psychological Association. Sexual orientation, gender, identity and socioeconomic status factsheet. 2020. Available at: <https://www.apa.org/pi/ses/resources/publications/factsheetlgbt.pdf> Accessed Aug 28, 2021.
- Ruble MW, Forstein M. Mental health: epidemiology, assessment, and treatment. In: Makadon HJ, Mayer KH, Potter J, Goldhammer H, editors. *The Fenway Guide to Lesbian, Gay, Bisexual, and Transgender Health*. Philadelphia:ACP;2008.p.187–208.
- Oginni OA, Mosaku KS, Mapayi BM, Akinsulore A, Afolabi TO. depression and associated factors among gay and heterosexual Male University students in Nigeria. *Arch Sex Behav* 2018;47(4):1119–32. [CrossRef]

24. McNair R, Szalacha LA, Hughes TL. Health status, health service use, and satisfaction according to sexual identity of young Australian women. *Womens Health Issues* 2011;21(1):40–7. [CrossRef]
25. Operario D, Gamarel KE, Grin BM, Lee JH, Kahler CW, Marshall BD, et al. Sexual minority health disparities in adult men and women in the United States: National Health and Nutrition Examination Survey, 2001–2010. *Am J Public Health* 2015;105(10):e27–34. [CrossRef]
26. Yalçinoğlu N, Önal AE. The internalized homophobia level of the homosexual and bisexual men and its effect on the health. *Turk J Public Health* 2014;12(2):100–12. [CrossRef]
27. Davas A. Health status of LGBTI employees. *Mesleki Sağlık ve Güvenlik Dergisi* 2018;17(65):21–7.
28. Türkiye İstatistik Kurumu. Bireylerin tütün mamulü kullanma durumunun cinsiyet ve yaş grubuna göre dağılımı 2010–2019. Available at: <https://data.tuik.gov.tr/Bulten/Index?p=Turkey-Health-Survey-2019-33661> Accessed Aug 28, 2021
29. Türkiye İstatistik Kurumu. Bireylerin alkol kullanma durumunun cinsiyet ve yaş grubuna göre dağılımı. 2010–2019. 2020b. Available at: <https://data.tuik.gov.tr/Bulten/Index?p=Turkey-Health-Survey-2019-33661> Accessed Sept 1, 202.
30. T.C. İçişleri Bakanlığı Emniyet Genel Müdürlüğü Narkotik Suçlarla Mücadele Dair Başkanlığı Türkiye’de genel nüfusta tütün, alkol ve madde kullanımına yönelik tutum ve davranış araştırması raporu 2018. Available at <http://www.narkotik.pol.tr/kurumlar/narkotik.pol.tr/Duyurular/T%C3%9CRK%C4%B0YE%E2%80%99DE%20GENEL%20N%C3%9CFUSTA%20T%C3%9CT%C3%9CN%20ALKOL%20VE%20MADDE%20KULLANIMINA%20Y%C3%96NEL%C4%B0K%20TUTUM%20VE%20DAVRANI%C5%9E%20ARA%C5%9ETIRMASI.pdf> Accessed Sept 1, 202.
31. Newman PA, Reid L, Tepjan S, Akkakanjanasupar P. LGBT+ inclusion and human rights in Thailand: a scoping review of the literature. *BMC Public Health* 2021;21(1):1816. [CrossRef]
32. McDonald K. Social support and mental health in LGBTQ adolescents: a review of the literature. *Issues Ment Health Nurs* 2018;39(1):16–29. [CrossRef]
33. Eltekin Ö, Karairmak Ö. Lezbiyen, gey ve biseksüellerde algılanan damgalanma, cinsel kimlik gelişimi ve stresinin sosyodemografik değişkenlere göre incelenmesi [Tez]. İstanbul-Bahçeşehir Üniversitesi;2019.