

Psychological Distress and Embitterment in Young Transgender, Homosexual, and Heterosexual Individuals in an Islamic Country

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ABSTRACT

Background: Sexual and gender minorities may experience prejudice and discrimination, leading to a reduction in their quality of life (QoL) and harming their mental health. Independent of discrimination, psychological impairment can result from individual-level factors, such as primary mental disorders. By assessing not only general QoL but also specific emotions such as embitterment, which is associated with the experience of injustice, it is possible to differentiate the impairment of QoL resulting from discrimination-caused reactions. The hypothesis was that sexual and gender minorities score higher on embitterment and have a lower QoL than heterosexuals. There should be differences between homosexual and transgender people in a society that punishes homosexual individuals while accepting transgender people such as Iran. **Method:** 27 female-to-male transgender individuals from a private clinic, 17 homo(bi)sexuals and 18 heterosexual participants in Iran completed the “WHOQOL_BREF”, a measure of the quality of life, and the “Post-Traumatic Embitterment DisorderSelf-rating scale DScalee). The participants were between 18 and 25 years old. **Results:** There was a significant negative correlation between QoL and embitterment level. The WHOQOL_BREF and the PTED scores did not differ between the groups. Single items on WHOQOL_BREF revealed that transgender individuals had more problems with physical appearance and self-satisfaction. **Conclusion:** This study didn't support the hypothesis of poor quality of life or increased embitterment among young sexual and gender minorities in Iran. Transgender participants were dissatisfied with their body appearance. Even in the presence of discrimination, this does not necessarily lead to mental health impairment in this population.

Keyword: Post Traumatic Embitterment Disorder, discrimination, Gender Dysphoria, quality of life, Transgender

INTRODUCTION

Individuals of sexual and gender minorities, particularly transgender individuals, can suffer from poor mental and physical health [1–4]. A meta-analysis [5] showed an increased risk of depression across all sexual minorities, a higher risk of suicidal behavior, and anxiety disorders. Mood disorders, posttraumatic stress, and mental health burdens affect transgender individuals more than the general population [6, 7]. In a study conducted in Iran, 33.7% of

transgender individuals met the criteria for major depressive disorder, 20.5% for phobias, and 15.7% for adjustment disorders [8].

Everyday discrimination is assumed to result in psychological distress. [9, 10]. Sexual and gender minority individuals may face explicit and implicit social prejudices, limited societal opportunities, and various forms of discrimination [11–13]. Some religious denominations, such as Catholicism and Islam, have a long history of theological and cultural traditions that consider homosexuality and same-sex relationships sinful and prohibited; some countries and societies openly oppose homosexuality and even penalize it.

Sexual and gender minorities may experience unique challenges. Transgender individuals complained about more bullying at school than homosexual individuals, as they may have more difficulties concealing their gender identity than homosexual individuals concealing their sexual preference[14]. Youths of sexual minorities frequently expect to be rejected. Minority stress may play a role in the association between homosexuality and poor mental health outcomes [15]. Discrimination remains in later life; transgender people often have fewer job opportunities. In a study of 6,436 transgender persons in the U.S., 90 % reported discrimination in the workplace due to their gender identity [16]. They may also encounter discrimination in the healthcare system [17, 18].

Despite the potential influence of external factors, such as harassment and discrimination, the subjective well-being of an individual can also be influenced by primary mental disorders, which may or may not be linked to issues related to sexuality or body dysmorphic disorder. Transgender individuals, even during childhood, exhibit a higher prevalence of psychiatric comorbidities [19].

To determine whether the relationship between homosexuality or transgender and impaired mental well-being is due to discrimination, common measures of well-being, such as anxiety or depression measures, cannot be used, as they cover mental health impairment unspecifically, irrespective of the cause. In contrast, embitterment is an emotion specifically present in reaction to injustice and discrimination [20, 21]. It is an emotion that everyone experiences in response to feelings of betrayal, humiliation, injustice, unfair treatment, belittlement, and being excluded. If sexual and gender minorities experience such forms of discrimination subjectively, they should also show increased levels of embitterment.

Iran is a particularly interesting location for studying the distinction between "general" and "reactive" psychological distress in the context of sexual and gender minorities. Homosexual individuals face persecution and are even sentenced to death [22]. Given the legal pressure and social barriers, some homosexual individuals even seek therapy to gain acceptance in society [23]. Unlike homosexual individuals, transgender individuals enjoy legal protections, including legal protection to change gender identity and often health insurance-covered sex-reassignment surgery. This legal support can positively impact the mental well-being of transgender individuals, minimizing the negative effects of discrimination and embitterment compared to those identified as homosexual.

This study investigated the level of general psychological distress and embitterment among Iranian sexual and gender minorities. It hypothesized higher embitterment in homosexuals due

to increased oppression and discrimination, and that transgender individuals would also exhibit higher levels of embitterment than heterosexual individuals. Additionally, this study explored the association between embitterment and quality of life in these marginalized groups.

METHOD

Participants

The homosexual and bisexual participants were recruited through online advertisements on social media and in self-help groups for LGBT communities. Transgender individuals were all recruited from a private clinic that specialized in care for sexual and gender minorities and received a diagnosis by a psychiatrist to meet the criteria for gender dysphoria and exclusion for other mental disorders according to the DSM-5. Heterosexual participants were recruited through online groups such as sports or general communities on social media. We conducted in-person recruitment of transgender participants to ensure an accurate diagnosis of gender dysphoria based on the DSM-5 criteria. Given the diverse policies and cultural challenges in Iran, there was a potential for some homosexual individuals to mistakenly identify themselves as transgender. To avoid this possibility, we recruited transgender participants exclusively through in-person interactions.

Additionally, because of the punishing steps on homosexuality in Iran, we opted for the online recruitment of homosexual individuals, as convincing them to participate in the research was challenging.

Inclusion criteria were a minimum education level of secondary school. Self-reported questions were used to determine the sexual orientation of the homosexual/bisexual and heterosexual participants. Participants with more than 10% of missing data were excluded. As the age range of the transgender population in the clinic was between 18 and 25 years, the study population was limited to individuals in this age range.

Instruments

Participants Answered the Questionnaires Online:

Quality of Life:

The WHOQOL-BREF [24] is a 26-item self-reported version of the WHOQOL-100. It assesses four domains of quality of life (QoL): physical health, psychological health, social relationships, and environmental health. Questions 3, 4, and 26 had the reverse scores. All items were answered on a 5-point Likert scale ranging from 1 to 5. The domain scores were calculated using the mean of each domain item. We used the translated version of the WHOQOL_BREF [25].

Embitterment:

The Post-Traumatic Embitterment Disorder self-rating scale (PTED scale) [26] is a 19-item measure of reactive embitterment in adults. Each item is scored on a 5-point Likert scale ranging from 0 (not at all true) to 4 (extremely true). All of the questions were scaled in a positive direction. A score of 2.5 indicates an increased and clinically relevant level of embitterment. This study used the Farsi version of the PTED scale, which was translated back-to-back by the authors.

Demographic Data:

The participants provided information on their highest educational level, gender, sexual orientation, age, marital status, employment status, and medical history.. The participants self-reported their sexual orientation. Participants were classified as heterosexual, female homosexual, male homosexual, or bisexual individuals. The question about chronic physical or mental illness was answered with yes or no.

Data Analysis

Data were analyzed using SPSS 24 software, using descriptive statistics, analyses of variance, Chi-square tests, and Pearson's correlation, depending on the type of data. The alpha error was set to 0.05.

Ethical cnsiderations

The study involved an online self-report without interventions. The research team member communicated the project details via online chat, guaranteed anonymity, and provided written information. Participants, who were not incentivized, confirmed their consent online. This study adhered to the principles of the 2013 Declaration of Helsinki.

RESULTS

The participants were 62 Iranian adults. There were 29% heterosexual, 27% homo(bi)sexual, and 43.5% transgender individuals (Table 1). All transgender participants were female-to-male transgender. 29.4% of homo(bi)sexual participants were male, and 70.6 % were female. In the heterosexual group, 38.9% were female, and 61.1% were male. A chi-square test of marital status and gender status showed no significant association between gender status and marriage ($X^2=0.848, p<0.654$) . There were also no statistically significant differences in educational level, employment status, or medical history between the groups.

Table 1: Sociodemographic chrarateristics (n=62)

	Heterosexual	(Homo)Bisexual	Transgender	ANOVA/χ^2	P-Value
	n=18, %	n=17, %	n=27, %		
Sexual Orientation					
Heterosexual	100%	-	85.2%		
Homo female	-	11.8%	-		
Homo male	-	23.5%	3.7%		
Bisexual	-	64.7%	11.1%		
Gender					
Male	61.1%	29.4%	-		
Female	38.9%	70.6%	-		
Female to male transgender			100%		
Marital status				$\chi^2:0.848$	0.654
Single	77.8%	76.5%	66.7%		
In a relationship	22.2%	23.5%	33.3%		
Married	-	-	-		
Divorced	-	-	-		
Education				F:0.089	0.915
High school	16.7%	29.4%	14.8%		
12 Years (Diploma)	33.3%	29.4%	51.9%		

14 years (Associate)	33.3%	17.6%	11.1%		
16 years (Bachelor)	16.7%	23.5%	22.2%		
18 years (Master and higher)	0%	0%	0%		
Employment status				$\chi^2:4.481$	0.612
Student	55.6%	58.8%	48.1%		
Employee	22.2%	23.5%	18.5%		
unemployed/Job seeker	16.7%	11.8%	33.3%		
Home maker	5.6%	5.9%	-		
Medical history				$\chi^2:0.286$	0.867
Yes	11.1%	11.8%	7.4%		
No	88.9%	88.2%	92.6%		

Note. ANOVA=Analysis of Variance.

The mean scores for the physical domain of the WHOQOL_BREF scale in the heterosexual control group was $M=14.44$ ($SD = 2.02$) (Table 2), while in another study, the mean scores for the physical domain in the healthy group was 15.3 ($SD = 1.98$) [25]. Similarly, the scores for both minority groups were lower, but not different from those of the control group, which indicates no pronounced overall quality of life impairment. The mean social domain score in the heterosexual control group was 11.41 ($SD=3.72$), whereas in another study, the mean social domain score in the healthy group was 14.2 ($SD = 2.37$).

The social domain of quality of life for transgender individuals was 11.51 ($SD=4.22$), which was lower than the social domain for homosexual and bisexual participants, but not lower than that of heterosexual participants. The exception was the psychological aspect of the quality of life in the transgender group. This can be explained by differences in the selected items, as transgender participants had significantly lower scores in regard to acceptance of body appearance, the overall perception of health, self-satisfaction, and general enjoyment of life. When comparing individuals with and without a partner, those with a partner reported greater personal relationship satisfaction than single individuals $M=3.8$, $SD=0.95$ versus $M=3.0$, $SD=1.13$ ($t = -2.67$, $p=0.01$) and greater satisfaction with their sex life ($M=3.35$, $SD=1.27$ versus $=2.35$, $SD=1.26$; $t(60) = -2.767$, $p=0.008$).

Table 2: Sexual Orientation Group Difference on Quality of Life

	Heterosexual (n=18)	(Homo)Bisexual (n=17)	Transgender (n=27)	ANOVA ^a F (2,59)	P- value
	M (SD)	M (SD)	M (SD)		
1. How would you rate your quality of life?	3.28(0.83)	3.35(1.22)	2.78(0.70)	2.718	0.074
2. How satisfied are you with your health?	3.94(0.54)	4.12(0.70)	3.37(0.84)	6.532	0.003*
3. To what extent do you feel that physical pain prevents you from doing what you need to do? (is reversed)	4.22(0.73)	3.76(1.25)	3.74(0.81)	1.64	0.203
4. How much do you need any medical treatment to function in your daily life? (is reversed)	4.5(0.79)	4.29(0.92)	4.07(0.78)	1.472	0.238

5. How much do you enjoy life?	3.28(1.13)	3.29(1.05)	2.59(0.75)	4.027	0.023*
6. To what extent do you feel your life to be meaningful?	3.39(0.89)	3.12(1.11)	2.89(1.19)	1.1	0.340
7. How well are you able to concentrate?	3.67(0.97)	3.65(0.86)	3.22(0.93)	1.685	0.194
8. How safe do you feel in your daily life?	3.5(0.71)	3.24(0.97)	3.11(0.80)	1.207	0.306
9. How healthy is your physical environment?	3.39(1.20)	3.41(1.12)	3.44(0.64)	0.019	0.982
10. Do you have enough energy for everyday life?	3.5(0.92)	3.47(1.18)	3.07(0.96)	1.261	0.291
11. Are you able to accept your bodily appearance?	3.17(1.29)	3.65(1.11)	1.93(1.33)	11	0.000**
12. Have you enough money to meet your needs?	2.67(1.08)	2.59(1.12)	2.37(0.74)	0.58	0.563
13. How available to you is the information that you need in your day-to-day life?	3.33(0.77)	3.47(0.72)	3.33(0.68)	0.227	0.798
14. To what extent do you have the opportunity for leisure activities?	2.44(0.86)	3.06(1.14)	2.67(0.83)	1.945	0.152
15. How well are you able to get around?	3.39(0.78)	3.18(1.24)	3(1)	0.796	0.456
16. How satisfied are you with you sleep?	2.72(1.27)	2.59(1.37)	3(1.24)	0.588	0.559
17. How satisfied are you with your ability to perform your daily living activities?	3.61(0.70)	3.18(1.24)	3.07(1)	1.647	0.201
18. How satisfied are you with your capacity for work?	3.33(1.28)	2.94(1.03)	2.96(1.09)	0.714	0.494
19. How satisfied are you with yourself?	3.72(1.13)	3.24(0.97)	2.93(1)	3.232	0.047*
20. How satisfied are you with your personal relationships?	3.11(1.08)	3.65(1.06)	3.04(1.19)	1.667	0.198
21. How satisfied are you with your sex life?	2.67(1.53)	2.94(1.34)	2.41(1.19)	0.841	0.436
22. How satisfied are you with the support you get from your friends?	2.78(1.35)	3.47(1.18)	3.19(1.33)	1.268	0.289
23. How satisfied are you with the conditions of your living place?	2.61(1.33)	2.71(1.49)	2.67(1.18)	0.023	0.977
24. How satisfied are you with your access to health services?	3.17(1.04)	3.35(0.86)	3.15(0.77)	0.312	0.733
25. How satisfied are you with your transport?	2.72(0.96)	2.88(1.17)	2.48(0.89)	0.899	0.413
26. How often do you have negative feelings such as blue	2.67(1.08)	2.29(1.16)	2.04(1.06)	1.792	0.176

mood, despair, anxiety, depression? (is reversed)					
Overall mean scores of all items	3.26(0.53)	3.26(0.72)	2.94(0.49)	2.367	0.103
D1 ^c . Physical health	14.44(2.02)	13.38(3.26)	13.1(2.46)	1.512	0.229
D2^d. psychological	13.26(3.18)	12.82(3.07)	10.4(2.98)	5.804	0.005*
D3 ^e . Social relationships	11.41(3.72)	13.41(3.21)	11.51(4.22)	1.599	0.211
D4 ^f . Environment	11.92(2.81)	12.35(3.38)	11.61(1.78)	0.425	0.656

Note. a. ANOVA= Analysis of Variance; c. D1=Physical health dimensions; d. D2=Psychological dimensions; e. D3=Social relationships dimensions; f. D4= Environments dimensions. *. $p < 0.05$, **. $p < 0.001$

There was a significant negative correlation between the quality of life and reactive embitterment ($r = -0.374$, $n = 62$, $p = 0.003$). No statistically significant differences in the PTED score existed between transgender, homosexual/bisexual, and heterosexual participants (Table 3). The average PTED score was highly non-significant, therefore, it can be interpreted as equal for transgender ($M = 1.64$, $SD = 1.01$), homo(bi)sexual ($M = 1.62$, $SD = 1.07$), and heterosexual ($M = 1.67$, $SD = 0.92$) participants ($M = 1.62$, $SD = 1.07$).

Table 3: Sexual Orientation Group Difference on Post Traumatic Embitterment Disorder Questionnaire

	Heterosexual (n=18)	(Homo)Bisexual (n=17)	Transgender (n=27)	ANOVA	P- value
	M (SD ^a)	M (SD)	M (SD)	F (2,59)	
1. that hurt my feelings and caused considerable embitterment	2.11(1.37)	2.35(1.06)	2.41(1.45)	0.283	0.755
2. that I see as very unjust and unfair	2.22(1.22)	1.71(1.36)	2.15(1.41)	0.781	0.463
3. that led to a noticeable and persistent negative change in my mental well-being	2.44(1.46)	2.29(1.40)	2.22(1.50)	0.125	0.883
4. for that reason, I have a right to compensation	1.67(1.53)	1.41(1.54)	1.52(1.58)	0.119	0.888
5. about which I have to think over and over again	1.61(1.20)	1.88(1.41)	1.81(1.44)	0.193	0.825
6. that causes me to be extremely upset when I am reminded of it	2.06(1.55)	2.18(1.59)	2.22(1.45)	0.066	0.936
7. that triggers me to harbor thoughts of revenge	1.56(1.62)	1.65(1.66)	1.26(1.63)	0.345	0.710
8. for which I blame and am angry with myself	2.06(1.63)	1.59(1.73)	1.63(1.45)	0.503	0.607
9. that led to the feeling that there is no sense to strive or to make an effort	1.67(1.53)	1.71(1.65)	1.67(1.47)	0.004	0.996
10. that makes me to frequently feel sullen and unhappy	1.28(1.27)	1.47(1.50)	1.67(1.33)	0.444	0.644
11. that impaired my overall physical well-being	0.83(1.10)	1.24(1.44)	1.04(1.26)	0.441	0.645

12. that causes me to avoid certain places or persons so as to not be reminded of them	1.56(1.42)	1.29(1.49)	1.41(1.58)	0.133	0.876
13. that makes me feel helpless and disempowered	1.22(1.11)	1.18(1.51)	1.3(1.35)	0.045	0.956
14. that triggers feelings of satisfaction when I think that the responsible party having to experience a similar situation	1.17(1.38)	0.94(1.34)	0.74(1.16)	0.602	0.551
15. that led to a considerable decrease in my strength and drive	1.22(1.22)	1.41(1.33)	1.59(1.45)	0.409	0.666
16. that made that I am more easily irritated than before	2.17(1.34)	2.06(1.56)	2.15(1.54)	0.027	0.974
17. that makes that I must distract myself in order to experience a normal mood	2(1.37)	2.06(1.43)	1.63(1.18)	0.716	0.493
18. that made me unable to pursue occupational and/or family activities as before	2.17(1.50)	1.53(1.59)	1.67(1.24)	1.020	0.367
19. that caused me to draw back from friends and social activities	1.83(1.38)	1.76(1.56)	1.52(1.53)	0.278	0.758
20. which frequently evokes painful memories	1.44(1.42)	1.35(1.17)	1.7(1.49)	0.383	0.684
21. which has led to the fact that I often have the thought that I should make an end to life	0.67(1.03)	0.82(1.33)	1.07(1.36)	0.590	0.557
average of PTED score	1.67(0.92)	1.62(1.07)	1.64(1.01)	0.010	0.990

Note. This table reports the mean and standard deviation of the first to 21st questions in the PTED questionnaire.a.SD=Standard deviation

CONCLUSION

The present study evaluated the quality of life and reactive embitterment in heterosexual, homosexual/bisexual, and transgender individuals in Iran. It was conducted in Iran, where homosexual and bisexual individuals face significant societal pressure, whereas transgender people do not.

First, no differences in education and employment rates were found between the groups, contrary to other studies that reported higher unemployment rates among sex and gender minorities[27]. This could be because this study focused on individuals aged 18 to 25 years old, who may not have experienced long-term employment inequalities.

Second, transgender participants reported lower life enjoyment because of dissatisfaction with their physical appearance. This finding aligns with those of other studies that reported lower levels of mental health-related quality of life among transgender individuals [28–30]. This result is indicative of the typical issues faced by transgender individuals, who often experience dissatisfaction with their physical bodies [31]. Body dissatisfaction is associated with negative feelings, such as depressive symptoms and a higher stress level [32]. Previous findings have

indicated that transgender individuals are less likely to seek surgery when they are satisfied with their appearance [33, 34]. The quality of life of transgender individuals matches that of homosexual/bisexual and heterosexual individuals. Contrary to expectations, homosexual individuals did not show a significant impairment in their quality of life. Embitterment scores were similar across the groups, challenging the assumption that all minorities experienced a subjective feeling of discrimination. This contradicts our initial hypothesis; the question now is how to explain this observation. Again, the participants' age may be an explanation. Younger people may not have experienced what it means to live as minorities in later stages of life.

This study's results have several implications. We could not determine whether the participants were exposed to gender-related disparagement and harassment or not. It is important to note that bullying behavior is typical among young individuals, regardless of gender identity. In summary, these data suggest young individuals are not yet affected by adverse gender-related discrimination. This is an important starting point to foster preventive resilience, assertiveness, and self-confidence. As long as the participants had not yet experienced negative effects, the respective interventions could be more effective than when the participants had already been traumatized.

LIMITATION

The sample size for this cross-sectional study was small and limited to individuals aged 18–25 years. Future research should include older participants in order to gain a comprehensive understanding of the effects of discrimination. Longitudinal studies as well as broader psychological and environmental assessments are required. Replication under diverse societal conditions is therefore essential.

Author Contributions

M.L. designed the study, and M.T. performed recruitment. Both authors performed the data analyses and wrote the manuscript (equal).

Declaration of Competing Interest

The authors declare no conflicts of interest related to this study. The authors declare that no funds, grants, or other support was received during the preparation of this manuscript.

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