

Examining The Impact Of Uncertainty On Psychological Distress Among Transgender Individuals In Pakistan: The Moderating Effect Of Psychological Capital

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Abstract

The primary objective of this study was to investigate the associations between psychological distress, namely anxiety and depression, and the levels of uncertainty experienced by a sample of transgender persons (n = 124). The term "transgender" refers to an individual within the transgender community whose gender identification does not align strictly with the conventional male and female binary. Within the cohort of individuals, a majority of 55% (n = 69) indicated the presence of clinical depression, whereas a minority of 45% (n = 55) reported experiencing clinical anxiety. After excluding coping techniques from the analysis, a significant correlation was seen between psychological capital and anxiety and depression. This suggests that higher levels of psychological capital, namely optimism, are related to lower levels of anxiety and dejection. There is a positive association between greater tendencies to engage in avoidant coping strategies, such as emotional repression, and elevated levels of anxiety and depression. Conversely, there is a negative association between greater tendencies to engage in facilitative coping strategies, such as seeking assistance, and reduced levels of anxiety. Individuals who reported employing higher

levels of psychological capital as a coping strategy had a lower prevalence of anxiety. Participants who possessed higher levels of psychological capital reported experiencing lower levels of anxiety, whereas participants with lower levels of psychological capital reported experiencing higher levels of anxiety. This study explores the concerns associated with providing therapeutic services to individuals who identify as transgender within a clinical environment.

Keywords: transgender, depression, anxiety, fear, Pakistan.

Introduction

Individuals who self-identify as transgender encounter significant levels of social stigma and discrimination, resulting in detrimental effects on their psychological well-being. In contrast to cisgender individuals, who align with the gender given to them at birth, transgender individuals have a heightened susceptibility to feelings of despair, mental health challenges, and tendencies towards suicide ideation (Kattari et al., 2020). Surprisingly, a considerable proportion of adult transgender individuals in Pakistan, almost 25%, have had contemplation of suicide at some juncture in their lifetime. Hence, it is imperative for the field of public health to recognize and confront the underlying structural factors, including discriminatory state laws, regulations, and societal attitudes towards transgender individuals, which may contribute to these disparities (Fatima et al., 2022). The issue at hand is a matter of great concern in several nations, primarily attributable to the alarming surge in legislation and practices that exhibit prejudice towards transgender individuals (evidenced by the imposition of limitations on their ability to get gender-affirming therapies, such as hormone therapy).

Thus far, the adverse mental health outcomes experienced by transgender individuals have predominantly been ascribed to the phenomenon of individual minority stress. There is a prevailing belief that the presence of transphobia has a significant impact on the emotional, behavioral, and cognitive processes experienced by transgender persons,

hence heightening their vulnerability to various mental health concerns (Ahmed et al., 2023). This phenomenon has special validity when considering internalized transphobic actions, such as experiencing feelings of shame in relation to one's transsexual identity. An increasing amount of scholarly research has adopted a socio-ecological perspective to examine the relationship between the well-being of transgender individuals and various factors within their wider social context. This study focuses on the concept of minority stress exposure (Collet et al., 2023).

Numerous researches have provided empirical evidence about the detrimental effects of stigma on the mental well-being of those identifying as transgender or non-binary. These studies have consistently highlighted the disproportionately elevated prevalence of depression, anxiety, and suicidal tendencies within this population. The study starts by examining the prevalence of each illness, followed by an exploration of risk variables. This is due to the fact that depression, anxiety, and suicidality exhibit considerable overlap in terms of their shared risk factors (Virupaksha et al., 2016).

The prevalence of depression is consistently elevated in transgender and gender diverse (TGD) people, as indicated by many studies (Kota et al., 2020). Based on a research conducted in the United States, it was found that 44.1 percent of the transgender individuals surveyed (Mereish et al., 2014) had symptoms of clinical depression. In a separate investigation, it was demonstrated that a significant proportion of transgender women and girls, namely 68.3%, had encountered a severe depressive episode during the previous year (Liu et al., 2018). According to existing research, there is evidence to imply that transgender adolescents face a greater susceptibility to experiencing depression when compared to their cisgender counterparts (Ignatavicius, 2013). Transgender teens exhibited a significantly higher prevalence of clinical depression compared to cisgender youth, with a diagnosis rate more than twice as frequent among transgender adolescents (Johnson et al., 2019).

Previous studies have demonstrated that people with gender dysphoria (TGD) have elevated levels of anxiety, which are comparable to the rates reported in those with depression (Spivey & Edwards-Leeper, 2019). In a recent comprehensive investigation, the researchers synthesized data from a total of eight longitudinal studies and seventeen cross-sectional studies to examine the incidence of anxiety disorders and associated symptoms among the transgender population. The anxiety disorders most frequently recorded, with a prevalence ranging from 17% to 68%, include particular phobias, social phobias, panic disorders, and obsessive-compulsive disorders (Eisenberg et al., 2017). Moreover, there is generally a higher occurrence of generalized anxiety disorder among transgender and gender diverse persons. Individuals who identify as transgender and gender diverse (TGD) often have a high prevalence of anxiety-related difficulties. A study conducted on a sample of 109 adolescents who identified as TGD revealed that 48% of them fulfilled the diagnostic criteria for generalized anxiety disorder, as outlined in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) (Garcia et al., 2019). Research has demonstrated that transgender persons exhibit elevated levels of anxiety in comparison to their cisgender counterparts. In a sample size of 592 participants, the prevalence of anxiety disorders was seen to be higher among transgender persons (60.8%) compared to cisgender individuals (32.8%).

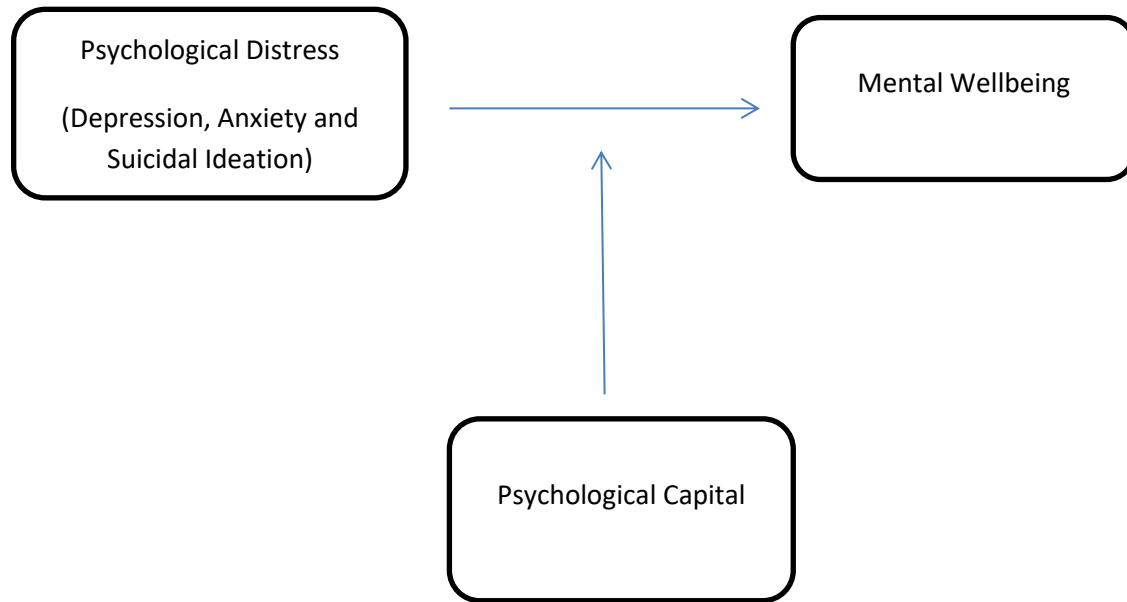
According to the findings of the 2015 National Transgender Health Survey (NTHS) including a sample size of 27,715 participants, it was observed that 40% of the respondents reported at least one instance of suicide attempt. Additionally, within the preceding 12 months, 7% of the participants disclosed having made a suicide attempt (Kuper et al., 2019). Among those who engaged in suicidal behavior within the previous year, a significant majority (71%) had previously made suicide attempts. Furthermore, a substantial proportion (46%) reported having made three or more suicide attempts throughout their lives. These statistics illustrate the prevalence of suicide among those who identify as transgender and gender diverse (TGD). According to the survey data, a significant majority of

participants, namely 82%, acknowledged having contemplated suicide at a certain juncture in their lifetime. Furthermore, nearly half of the respondents, specifically 48%, reported having entertained thoughts of suicide in the recent past (Chan et al., 2022). According to the study conducted by Kingsbury et al. (2022), it was shown that transgender adolescents exhibited a much higher prevalence of suicide ideation compared to their cisgender counterparts. This finding was derived from a comprehensive analysis of data gathered from various regions across the United States. Adams et al., (2017) conducted an investigation on the influence of gender identity on suicidality. In a study conducted by the authors of a research publication, it was shown that nonbinary adolescents who were assigned male at birth had a significantly higher prevalence of suicide ideation (50%) compared to those who were born female (31%), trans males (35.7%), and trans women (13.8%).

Purpose of Study

The primary objective of this study is to investigate the psychological discomfort experienced by individuals of varying genders in Pakistan, while also exploring the possible moderating influence of Psychological Capital (PsyCap) on this distress. In the context of Pakistan, individuals who identify as gender non-conforming may face stigmatization and encounter unique challenges due to prevailing cultural norms and societal views. The primary objective of this study is to shed light on the resilience and coping methods employed by an underrepresented community. This will be achieved by examining the correlation between psychological discomfort and psychological capital (PsyCap). To enhance the mental well-being and overall quality of life for Pakistan's diverse gender population, it is important to consider the potential impact of PsyCap on mitigating or reducing psychological distress. This understanding may inform the development of effective therapies and support strategies. This would ultimately result in the establishment of a society that is more inclusive and characterized by more equality.

Frame work of Study



The framework depicted in Figure 01 of this study illustrates the organizational structure and conceptual model employed. This statement provides a concise overview of the fundamental elements and connections within a certain study context. The fundamental focus of this method lies in the recognition and examination of psychological distress experienced by individuals in Pakistan who identify as gender-diverse. Psychological distress can be influenced by several factors, including demographics, social support networks, cultural influences, and identity features. The method places emphasis on the role of Psychological Capital (PsyCap) as a moderator. This study demonstrates the potential influence of PsyCap on the modulation of psychological distress in individuals who identify as gender-diverse. The presented visualization serves to elucidate the extent of the study and provide a framework for the research endeavor, enabling an examination of the intricate dynamics among these variables and facilitating a deeper comprehension of the marginalized people in Pakistan.

Methodology

The present study employed the purposive sampling strategy to gather data from Lahore and Multan, both located in the Punjab area of Pakistan.

Questionnaires

1. Demographic information sheet

The participants were requested to provide important demographic information, including age, gender, ethnicity, and education level.

2. Depression Scale

The Center for Epidemiologic Studies Depression Scale (CES-D), developed by (Radloff, 1977), is commonly employed as a tool for assessing depression in the general population. The questionnaire consists of 20 items pertaining to symptoms commonly associated with depression, such as feelings of sadness, alterations in eating patterns, difficulty with sleep, and diminished self-esteem. Respondents were asked to evaluate each item on a 4-point Likert scale ranging from 0 (indicating unusual or infrequent occurrence) to 3 (representing frequent or consistent occurrence), based on their experiences from the previous week. The CES-D has a high level of internal consistency and clinical validity. The individual replies are aggregated to get the cumulative score on the scale, which serves as an indicator of depression. A score above the clinical threshold of 16 signifies the presence of depression. The CES-D has robust internal consistency, as seen by a coefficient alpha of .90 for the whole sample. The present investigation employed a clinical threshold value of 16 and observed a high level of dependability, as shown by a coefficient alpha of .94.

3. Anxiety Scale

The Burns Anxiety Inventory (BAI) is a self-report assessment consisting of 33 items that are used to quantify anxiety symptoms experienced on a weekly basis. Inquiries encompass a diverse range of cognitive processes, emotional experiences, and physiological manifestations associated with anxiety. The rating of

each item is assessed using a 4-point Likert scale, ranging from 0 (indicating no presence) to 3 (indicating a high degree of presence). The aggregate score is derived from the summation of individual item responses. Prior research has demonstrated that the Beck Anxiety Inventory (BAI) possesses validity, reliability, and sensitivity in assessing anxiety symptoms subsequent to therapeutic interventions. Several investigations have demonstrated a high level of internal consistency, with a coefficient of .92. To date, there is a lack of peer-reviewed articles that have employed the BAI (Body Attitudes Inventory) in the context of transgender communities. The reliability of the BAI in this experiment was deemed high, as shown by a coefficient alpha of .95 (Burns & Eidelson, 1998).

4. Psychological Capital Scale

The psychological capital construct was assessed through the utilization of twelve distinct measures, each of which captured the key attributes of self-efficacy, optimism, hope, and resilience. A comprehensive set of twelve items was employed for the purpose of assessing psychological capital. The researchers employed a Likert scale consisting of five points to assess the participants' replies to the topics at hand. The scale ranged from one, indicating strong disagreement, to five, indicating strong agreement (Matos & De Andrade, 2021). The scale has been assessed and determined to have a Cronbach's alpha coefficient of 0.91 (Lorenz et al., 2022).

5. Psychological Wellbeing Scale

The study employed the Cummins PWB Scale as a means of quantifying psychological well-being (PWB). The utilization of self-reflective contentment inquiries is commonly acknowledged as a valid alternative for assessing subjective well-being (SWB). The calculation of PWB scores involves the utilization of the life domain scale, which encompasses seven supplementary domains and a measure of overall life satisfaction within each domain. The calculation of subjective well-being (SWB) involves the computation of an average score

derived from many elements, each of which corresponds to a unique facet of an individual's life. The PWB scale has seven distinct areas that measure satisfaction across several dimensions of quality of life. These categories cover standard of living, health, life accomplishment, relationships, safety, community connectedness, and future security (Agha Yousefi et al., 2011).

Statistical Analysis

In order to assess the association between variables, both descriptive and inferential statistics were utilized.

Result

Table 1 Demographic Characteristics (N= 124)

	Number (%)	Mean(SD)
Respondent		2.56(1.57)
Male Transgender	32(25.8)	
Female Transgender	92(74.2)	
Age of Respondent		2.11(.751)
25-35	40(32.5)	
35-45	39(31.3)	
45-55	25(20.1)	
55-65	16(12.9)	
Above 65	4(3.2)	
Education of Respondent		3.66(.891)
Primary	92(74.1)	
Middle	28(22.5)	
Matric	4(3.2)	

Table 1 presents the demographic characteristics of the entire sample size of 124 participants that participated in the study. The study included a total of 124 transgender respondents, with 32 (25.8%) identifying as male and 92 (74.2%) identifying as female. The average age of the respondents was 2.56 years, with a standard deviation of

1.57. The age distribution of the responders is as follows: The average age of the participants was 2.11 years old, with a standard deviation of 0.751. Among the participants, 32.5% fell within the age range of 25 to 35, 31.3% fell within the age range of 35 to 45, 20.1% fell within the age range of 45 to 55, 12.9% fell within the age range of 55 to 65, and 3.2% were over the age of 65. The average education level was 3.66 (standard deviation = 0.891). Out of the total 92 respondents, 74.1% had completed Matric (high school), while the remaining 28 respondents (22.5%) had completed Middle School. Only 4 respondents (3.2%) had attended Primary School.

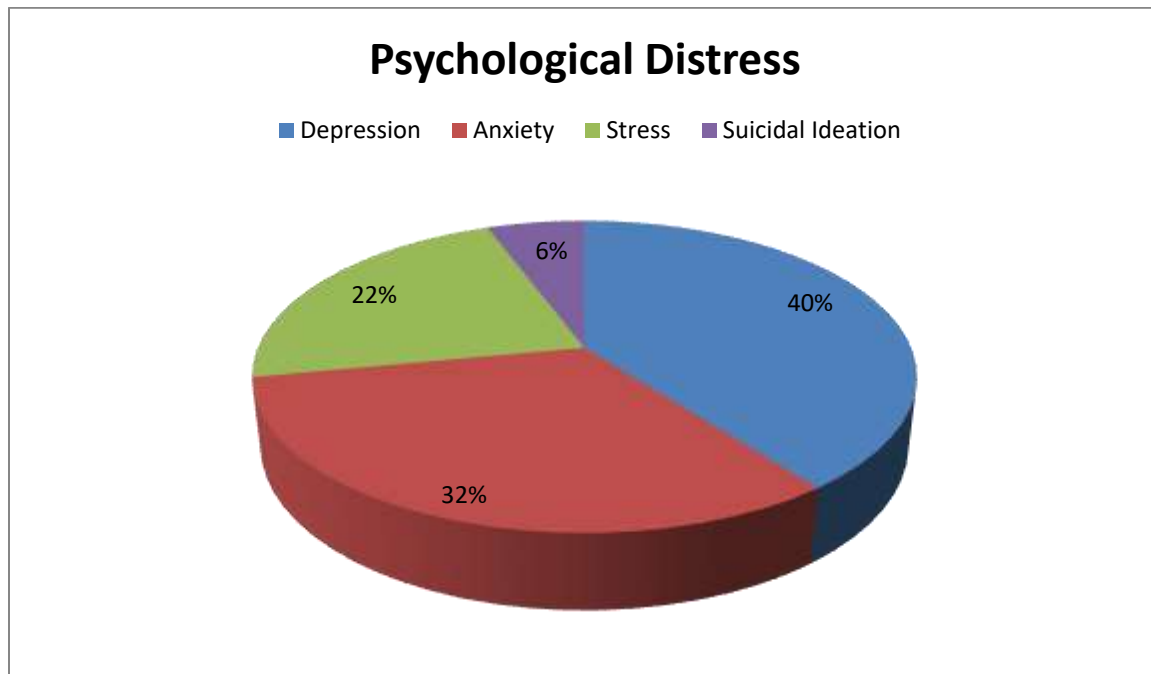


Figure 2 is a comprehensive depiction of the psychological distress experienced by those who identify as transgender. According to the poll, a majority of transgender individuals, namely 55%, reported having encountered instances of depression at some stage in their lives. A significant proportion of participants, namely 45%, said that they had also encountered symptoms of anxiousness. Furthermore, a notable proportion of 31% of individuals who identify as transgender reported experiencing elevated levels of stress. The prevalence of suicide ideation among 7.90% of participants underscores the urgent necessity to

enhance the availability of mental health services and social support for transgender individuals. The findings underscore the urgent requirement for mental health interventions and support systems tailored specifically for transgender individuals, in order to effectively address the unique challenges they encounter and mitigate the prevalence of psychological distress.

Table 2 Pearson Product Correlation Analysis

Variable	1	2	3	4	5	6	Mean	SDV
1. Depression	-	.452*	.23*	.65	-.72**	.32*	5.45	1.43
2. Anxiety		-	.15	.43*	-.57**	.12	3.21	1.25
3. Stress			-	.23**	-.65	.72**	2.31	1.32
4. Suicidal Ideation				-	-.41*	.21*	3.55	1.21
5. Well being					-	.87**	1.74	0.78
6. PsyCap						-	1.43	0.45

The findings of a Pearson Product Correlation Analysis, which explores the associations among different variables, are displayed in Table 2. The variables examined in this study encompass a range of psychological constructs, namely: 1) Depression, 2) Anxiety, 3) Stress, 4) Suicidal Ideation, 5) Well-being, and 6) PsyCap (Psychological Capital). The presented table exhibits the correlation coefficients among the aforementioned factors. It is worth mentioning that there was a significant positive relationship between Depression and worry ($r = .452$, $p < .05$), suggesting that increased levels of depression were linked to increased levels of worry. Furthermore, there was a significant positive relationship between Depression and Stress ($r = .23$, $p < .05$), as well as a robust negative relationship between Depression and Well-being ($r = -.72$, $p < .01$). The results of the study indicate that there is a statistically significant positive relationship between anxiety and stress ($r = .43$, $p < .05$), as well as a statistically significant negative relationship between anxiety and suicidal ideation ($r = -.57$, $p < .01$). There was a negative association seen between stress and suicidal ideation ($r = -.41$, $p < .05$), indicating that as stress levels

increased, suicidal ideation decreased. Conversely, a large positive correlation was found between well-being and psychological capital ($r = .87, p < .01$), suggesting that higher levels of well-being were associated with higher levels of psychological capital. The aforementioned correlations offer useful insights into the interrelationships among the psychological factors, hence elucidating the intricate dynamics within the population under investigation. The table further presents the mean (Mean) and standard deviation (SDV) for each variable, providing a concise overview of their measures of central tendency and variability.

Table 3 Hypothesis Testing of the study

Hypothesis	Beta	SE	T value	sig	Decision
H1 Depression and Wellbeing	-0.210	0.045	3.68	0.019	Supported
H2 Anxiety and Wellbeing	-0.017	0.029	6.48	0.031	Supported
H3 Suicidal Ideation and Wellbeing	-0.16	0.092	1.946	0.045	Supported
H4 moderating role of Psycap between Distress and wellbeing	-0.121	0.022	4.042	0.002	Supported

The findings of the hypothesis testing in the study are presented in Table 3. The initial hypothesis (H1) posited a correlation between Depression and Well-being. The results of the study revealed a statistically significant negative beta coefficient of -0.210 (standard error = 0.045), which was associated with a t-value of 3.68 and a significance level of 0.019. Consequently, the findings provide support for Hypothesis 1, suggesting a negative correlation between elevated levels of depression and diminished levels of well-being.

The second hypothesis (H2) investigated the association between Anxiety and Well-being. The results of the study indicate a statistically significant negative beta coefficient of -0.017 (standard error = 0.029), with a t-value of 6.48 and a significance level of 0.031. Therefore, the hypothesis H2 is substantiated, indicating a correlation between heightened anxiety and diminished levels of well-being.

Hypothesis 3 (H3) examined the correlation between Suicidal Ideation and Well-being. The study revealed a statistically significant negative beta coefficient of -0.16 (standard error = 0.092), with a corresponding t-value of 1.946 and a significance level of 0.045. Thus, the findings of this study provide support for Hypothesis 3 (H3), which suggests a significant association between suicidal thoughts and diminished levels of overall well-being.

Finally, Hypothesis 4 (H4) investigated the moderating effect of Psychological Capital (PsyCap) on the relationship between Distress and Well-being. The results of the study revealed a statistically significant negative beta coefficient of -0.121 (standard error = 0.022), with a t-value of 4.042 and a significance level of 0.002. The findings indicate support for H4, which suggests that PsyCap has a moderating function in the association between distress and well-being. The aforementioned results offer significant contributions to our understanding of the complex relationship between psychological distress, well-being, and the moderating effect of Psychological Capital (PsyCap) within the specific setting of this study.

Discussion

The primary objective of this study was to conduct a comparative analysis of the mental well-being among individuals who identify as transgender and gender-diverse (TGD), with a particular focus on examining potential variations based on their respective social affiliations. The majority of the extant scholarly works have tended to see transgender and gender diverse (TGD) communities as a homogeneous entity, primarily focusing on comparing the mental well-being of TGD individuals with that of cisgender individuals, without thoroughly exploring the multifaceted nature and variations within the TGD community. Comprehending these distinctions is of utmost importance in order to offer the most suitable support to those who identify as transgender or gender nonconforming. Our study revealed notable disparities in mental health among individuals who identify as transgender and gender

diverse (TGD). These disparities were observed specifically among TGD individuals who reported having a disability, those who defined as straight or heterosexual, and those who identified as nonbinary.

A substantial body of psychological literature has been dedicated to the examination of gender, but with a predominant emphasis on the traditional binary classification of genders. The primary objective of this study is to shed light on the experiences of individuals who identify as transgender, with a specific focus on examining the coping techniques they employ to manage stress and address various mental health concerns. Transgender individuals are commonly categorized with other transgender identities, and currently, there exists a dearth of specialized psychological research pertaining to this specific population. While no statistical comparisons were conducted with other groups, our findings indicate that those identifying as transgender reported higher degrees of discomfort compared to the general population. Based on prior research, it has been shown that approximately 16.6% and 28.8% of the overall population experience clinically significant levels of depression and anxiety, respectively. According to our research findings, those who identify as gender nonconforming tend to suffer much greater degrees of discomfort compared to individuals who identify as cisgender or heterosexual. The prevalence of depressive symptoms and anxiety in the present sample exhibited similarities to those observed in other studies conducted on larger transgender populations. The transgender community has faced adversity because to the tendency of the psychological community to pathologize individuals who deviate from conventional gender presentations and identities. It is crucial to bear in mind the minority stress theory acknowledges that the discomfort experienced by transgender populations is influenced by contextual factors. It is necessary to refrain from interpreting these statistics as indicative of an inherent predisposition of transgender individuals towards depression or anxiety.

The findings of our study did not reveal any statistically significant variations based on race/ethnicity or geographic location (urban/suburban versus small town/rural). Consequently, these variables were not used into the regression analysis. The limited size of our sample and the need to combine specific responses in order to enhance statistical strength during the first analyses might perhaps account for the absence of statistical significance that we found. It is plausible that doing more extensive investigations might provide further insights into these matters. While the prior study's understanding of gender was constrained, it did suggest that transgender persons in rural areas would have more pronounced disparities in mental health. Smith et al. posit that the disparities in mental health observed in rural locations can be attributed to conservative community views, restricted municipal legislation, and geographical barriers that impede access to transgender-affirming healthcare. On the contrary, those who identify as transgender and gender diverse (TGD) residing in rural areas may potentially experience greater advantages from strong social support systems compared to those living in metropolitan settings. In order to determine if the conclusions drawn from our study are influenced by the constraints of the sample size or whether they genuinely represent the experiences of the targeted group, it is recommended that future research endeavors include comparable studies, particularly with larger and more diverse populations.

Conclusion

Although counselors may not be well-versed in transgender identity, the results of this study underscore the need of acquiring knowledge about the distinct experiences of transgender individuals in relation to coping mechanisms, psychological well-being, and distress. It is recommended that counselors evaluate the degree of psychological capital in transgender clients and the coping strategies employed. Additionally, counselors should consult the American Counseling Association (ACA) guidelines for proficiency in addressing gender

diversity. It is noteworthy that anxiety seems to be the predominant manifestation of distress when considering psychological capital and coping. According to research on various nonbinary identities, a significant source of distress often stems from the lack of comprehension exhibited by others both inside and outside the group, as well as the experience of being excluded. Therefore, it is imperative for counselors to bear in mind that, notwithstanding the malleability and socially constructed nature of any identity, validating a client's identity might be a paramount element in aiding transgender clients in enhancing their psychological well-being and promoting adaptive coping strategies.

References

- Adams, N., Hitomi, M., & Moody, C. (2017). Varied Reports of Adult Transgender Suicidality: Synthesizing and Describing the Peer-Reviewed and Gray Literature. *Transgender Health*, 2(1), 60–75. <https://doi.org/10.1089/trgh.2016.0036>
- Agha Yousefi, A., Alipour, A., & Sharif, N. (2011). Reliability and Validity of the “Personal Well-Being Index – Adult” in Mothers of Mentally Retarded Students in North of Tehran-Iran. *Iranian Journal of Psychiatry and Behavioral Sciences*, 5(2), 106–113. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3939976/#B21>
- Ahmed, S., Rosario Yslado Méndez, Naveed, S., Akhter, S., Iqra Mushtaque, Malik, M. A., Ahmad, W., Roger Norabuena Figueroa, & Younas, A. (2023). Assessment of hepatitis-related knowledge, attitudes, and practices on quality of life with the moderating role of internalized stigma among hepatitis B-positive patients in Pakistan. *Health Psychology and Behavioral Medicine*, 11(1). <https://doi.org/10.1080/21642850.2023.2192782>
- Burns, D. D., & Eidelson, R. J. (1998). Why are depression and anxiety correlated? A test of the tripartite model. *Journal of Consulting and Clinical Psychology*, 66(3), 461–473. <https://doi.org/10.1037/0022-006x.66.3.461>
- Chan, A. S. W., Wu, D., Lo, I. P. Y., Ho, J. M. C., & Yan, E. (2022). Diversity and Inclusion: Impacts on Psychological Wellbeing Among Lesbian, Gay, Bisexual, Transgender, and Queer Communities.

- Frontiers in Psychology, 13.
<https://doi.org/10.3389/fpsyg.2022.726343>
- Collet, S., Meltem Kiyar, Martens, K., Jolien Vangeneugden, Simpson, V. G., Guillamon, A., Mueller, S. C., & T'Sjoen, G. (2023). Gender minority stress in transgender people: a major role for social network. *20(6)*, 905–917.
<https://doi.org/10.1093/jsxmed/qdad043>
- Eisenberg, M. E., Gower, A. L., McMorris, B. J., Rider, G. N., Shea, G., & Coleman, E. (2017). Risk and Protective Factors in the Lives of Transgender/Gender Nonconforming Adolescents. *Journal of Adolescent Health*, 61(4), 521–526.
<https://doi.org/10.1016/j.jadohealth.2017.04.014>
- Fatima, S. M., Ahmed Lak, T., & Mushtaque, I. (2022). Cases of Transgender Killing in Pakistan. *Asia Pacific Journal of Public Health*, 101053952211071.
<https://doi.org/10.1177/10105395221107134>
- Garcia, J., Vargas, N., Clark, J. L., Magaña Álvarez, M., Nelons, D. A., & Parker, R. G. (2019). Social isolation and connectedness as determinants of well-being: Global evidence mapping focused on LGBTQ youth. *Global Public Health*, 15(4), 1–23.
<https://doi.org/10.1080/17441692.2019.1682028>
- Ignatavicius, S. (2013). Stress in Female-Identified Transgender Youth: A Review of the Literature on Effects and Interventions. *Journal of LGBT Youth*, 10(4), 267–286.
<https://doi.org/10.1080/19361653.2013.825196>
- Johnson, K. C., LeBlanc, A. J., Deardorff, J., & Bockting, W. O. (2019). Invalidation Experiences Among Non-Binary Adolescents. *The Journal of Sex Research*, 57(2), 222–233.
<https://doi.org/10.1080/00224499.2019.1608422>
- Kattari, S. K., Kattari, L., Johnson, I., Lacombe-Duncan, A., & Misiolek, B. A. (2020). Differential Experiences of Mental Health among Trans/Gender Diverse Adults in Michigan. *International Journal of Environmental Research and Public Health*, 17(18), 6805.
<https://doi.org/10.3390/ijerph17186805>
- Kingsbury, M., Hammond, N. G., Johnstone, F., & Colman, I. (2022). Suicidality among sexual minority and transgender adolescents: a nationally representative population-based study of youth in Canada. *CMAJ*, 194(22), E767–E774.
<https://doi.org/10.1503/cmaj.212054>

- Kota, K. K., Salazar, L. F., Culbreth, R. E., Crosby, R. A., & Jones, J. (2020). Psychosocial mediators of perceived stigma and suicidal ideation among transgender women. *BMC Public Health*, 20(1), 1–10. <https://doi.org/10.1186/s12889-020-8177-z>
- Kuper, L. E., Mathews, S., & Lau, M. (2019). Baseline Mental Health and Psychosocial Functioning of Transgender Adolescents Seeking Gender-Affirming Hormone Therapy. *Journal of Developmental & Behavioral Pediatrics*, 40(8), 589–596. <https://doi.org/10.1097/dbp.0000000000000697>
- Liu, C. H., Stevens, C., Wong, S. H. M., Yasui, M., & Chen, J. A. (2018). The prevalence and predictors of mental health diagnoses and suicide among U.S. college students: Implications for addressing disparities in service use. *Depression and Anxiety*, 36(1), 8–17. <https://doi.org/10.1002/da.22830>
- Lorenz, T., Hagitte, L., & Prasath, P. R. (2022). Validation of the revised Compound PsyCap Scale (CPC-12R) and its measurement invariance across the US and Germany. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.1075031>
- Mereish, E. H., O’Cleirigh, C., & Bradford, J. B. (2014). Interrelationships between LGBT-based victimization, suicide, and substance use problems in a diverse sample of sexual and gender minorities. *Psychology, Health & Medicine*, 19(1), 1–13. <https://doi.org/10.1080/13548506.2013.780129>
- Radloff, L. S. (1977). The CES-D Scale: A Self-Report Depression Scale for Research in the General Population. *Applied Psychological Measurement*, 1(3), 385–401. <https://doi.org/10.1177/014662167700100306>
- Spivey, L. A., & Edwards-Leeper, L. (2019). Future Directions in Affirmative Psychological Interventions with Transgender Children and Adolescents. *Journal of Clinical Child & Adolescent Psychology*, 48(2), 343–356. <https://doi.org/10.1080/15374416.2018.1534207>
- Virupaksha, H., Muralidhar, D., & Ramakrishna, J. (2016). Suicide and suicidal behavior among transgender persons. *Indian Journal of Psychological Medicine*, 38(6), 505. <https://doi.org/10.4103/0253-7176.194908>