

Assessing the Socioeconomic, Physical, and Mental Health Status of Transgender Individuals in the Twin Cities of Islamabad and Rawalpindi, Pakistan

Zeeshan Parwaiz ^{1*} Muhammad Asif ²

¹ PhD Scholar, Department of Public Health, Faculty of Medicine and Allied Health Sciences, TIMES University, Multan, Punjab, Pakistan. Email: drzeeshan111@gmail.com

² HoD, Department of Public Health, Faculty of Medicine and Allied Health Sciences, TIMES University, Multan, Punjab, Pakistan. Email: drmuhammadasif@t.edu.pk

ABSTRACT: Transgender individuals in Pakistan experience persistent social marginalization and unequal access to essential services, including education, employment, healthcare, and social welfare. These challenges often result in adverse socioeconomic conditions and negatively affect physical and psychological well-being. The present study evaluates the socioeconomic circumstances, physical health, and mental health of transgender individuals living in Islamabad and Rawalpindi. The target population comprised all transgender individuals residing in these twin cities. Random and snowball sampling techniques were used for sample selection. The total transgender population in Islamabad/Rawalpindi was reported as 1,350 (Govt. of Pakistan, 2023). At a 95% confidence level, a sample of 300 transgender individuals was selected. A questionnaire was developed for data collection, and data were analyzed through descriptive statistics using SPSS-27. The results show that about 40 percent of selected transgender individuals have no formal education, while 30 percent have no job. About 78 percent live in rented houses that are not satisfactory to live in, and 51 percent experienced eviction or denial of housing due to gender identity. More than 66 percent of respondents think it is difficult to access healthcare services, while 37 percent have faced discrimination in healthcare settings. About 84 percent have no access to mental health support. It was found that 17 percent have very poor general health status. Furthermore, 84 percent feel down, depressed, or hopeless more than half the days or nearly every day, while 81 percent report little interest or pleasure in doing things. The study suggests policy measures to improve the socioeconomic and health profile of Pakistan's transgender community.

KEYWORDS: Transgender, Socioeconomic, Descriptive Statistics, Rawalpindi, Islamabad

Introduction

Transgender is an umbrella term. It is used to describe a person who is not congruent with his/her biological sex (Lees, 2022). They include people who usually pursue medical interventions like hormones or gender replacement

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Corresponding Author

Zeeshan Parwaiz

✉ drzeeshan111@gmail.com

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surgery (Yarbrough, 2018). They face social isolation. Due to social isolation, biased attitudes of society, and limited understanding, they face many challenges to their mental health and well-being (Yadegarfar et al., 2014). In Pakistan, transgender individuals, commonly referred to as *Khwaja Sira* or *Hijra*, are among the socially marginalized group subjected to stigma, exclusion, and systemic discrimination (Dayani et al., 2019). In 2018, the country officially and legally recognized a “third gender”. However, this recognition didn’t help in the reduction of the structural barriers to education, employment, and healthcare access (Noor et al., 2024).

Transgender people are widely regarded as one of the most marginalized groups in many parts of the world because they frequently experience discrimination, prejudice, and barriers to essential resources and services (WHO, 2024). The term *transgender* describes individuals whose gender identity does not align with the sex they were assigned at birth. In numerous societies, social stigma and exclusion limit their access to education, employment, healthcare, and other opportunities, leading to poorer physical and mental health outcomes. These difficulties are shaped by interconnected cultural, legal, and economic conditions that often intensify existing inequalities and reduce overall quality of life (UNDP, 2023; WHO, 2024).

There is a strong relationship between socioeconomic factors and the health and quality of life of individuals. Research has demonstrated that transgender people may be more likely to experience educational disadvantages, unemployment or underemployment, and housing insecurity than other population groups, as well as lower income (Suarez et al., 2024). Limited access to secure jobs due to discrimination, social prejudice, and unequal treatment within educational institutions and workplaces. Many transgender people therefore have to earn a living through informal or short-term work which offers less financial security, employment stability, and legal protection, placing them at greater risk of economic disadvantage (Ogarrio et al., 2025; Constantinou & Nikitara, 2025).

Transgender communities in South Asian countries like Pakistan, India and Bangladesh have long been marginalized from the formal job market. Many people have traditionally resorted to performing at social and cultural ceremonies, or to begging for financial assistance in order to make a living (Pervaiz, 2024; Kalhor & Khan, 2023). In recent years, trans guiding has gained ground in the recognition of transgender rights in different countries, but there are still large economic differences in the lives of these people. Long-term low earnings are linked to limited access to health services, poor nutritional health, and lack of access to education, employment, and social mobility among transgender people (Scheim et al., 2024).

Transgender people face a variety of social and systemic stressors that have a significant impact on their physical health. Some struggle with the stigma attached to accessing care, few have access to healthcare workers who are knowledgeable, and financial issues and concerns about unfair treatment in health care settings all limit access to healthcare. This could mean that they delay the health care they need, leading to poorer overall health outcomes (Jessani et al., 2024; Ebert et al., 2025). Transgender individuals are more likely than many other groups to have chronic health conditions, infectious diseases, substance use disorders, and unmet medical needs. Low-income countries may struggle to access preventive health care services, which can also exacerbate the health risks (Scheim et al., 2024; Jessani et al., 2024). Discrimination, disrespect, or denial of health care services are also discouraging many transgender people from seeking health services. Therefore, many conditions that can be prevented or treated at a young age often go untreated and result in worse health outcomes (Scheim et al., 2024).

One of the domains of the study taken up here is to explore the mental health profile of transgender people in the twin cities. Mental health is a significant field of study in the realm of transgender health and wellness. The current evidence is consistent with the fact that transgender people are more likely than cisgender people to experience depression, anxiety, emotional distress, and thoughts of suicide. The disparities in mental health outcomes

are not due to transgender identity itself, but rather to factors related to social challenges and stressors, such as discrimination, exclusion, exposure to violence, and minority stress (Mezza et al., 2024).

Likewise, Minority Stress Theory holds that chronic exposure to stigma, prejudice, and discrimination can cause chronic psychological stress that can enhance susceptibility to mental health problems. Emotional difficulties can be exacerbated by other experiences, including rejection by family members, harassment, social isolation, and money problems. However, the transgender community experiences better mental health, coping skills and resilience when family members accept them, they have robust social support networks and access to healthcare providers that are respectful and inclusive of them (Wilson et al., 2024).

There is a close relationship between socioeconomic status and health. Many studies now highlight the importance of the link between socioeconomic status and health outcomes in transgender people. Limited income and financial instability due to barriers to education and employment can lead to limited access to healthy nutrition, secure housing, and suitable healthcare services. Financial hardship is also associated with greater stress levels, poorer physical health, and higher risk of mental health issues (Jessani et al., 2024; Ebert et al., 2025).

Transgender people with more education and stable work are more likely to have better physical and mental health than those who are economically disadvantaged, although more research is needed to confirm these findings. The results underscore the importance of tackling wider social determinants of health beyond providing medical services, as addressing these social and economic factors is crucial for enhancing the overall health and wellbeing of transgender people (Constantinou & Nikitara, 2025).

Socioeconomic status is a close correlate of health. Many studies now highlight the importance of the link between socioeconomic status and health outcomes in transgender people. Barriers to education and employment can result in limited access to healthy nutrition, secure housing and appropriate healthcare services, impacting income and financial stability. Additionally, higher stress levels, worse physical health and increased mental health risk are related to financial hardship (Jessani et al., 2024; Ebert et al., 2025).

Often, it has been found that transgender people suffer from high rates of depression, anxiety, and psychological distress in Pakistan. These mental health issues are heavily impacted by factors like limited job prospects, discrimination from family members, incidents of harassment, and exposure to violence (Mansoori et al., 2025). Stigma in healthcare settings and inadequate knowledge of transgender health needs by healthcare providers is also a barrier to accessing health care. Research on transgender health in Pakistan has grown in recent years, but most of this research either focuses on individual health issues, such as HIV prevention, or on issues of violence, neglect or abuse, with little consideration given to the combined effect of socioeconomic factors, physical health and mental health in an integrated framework (Wilson et al., 2024).

Transgender people in Pakistan, including those who identify as Khawaja Sira or Hijra, remain among the most socially and economically disadvantaged groups in the country. Although legal reforms, including the Transgender Persons (Protection of Rights) Act, 2018, have strengthened the formal recognition of their rights, many still encounter barriers in accessing education, employment, healthcare, housing, and equal participation in society (Government of Pakistan, 2018; Alamgir, 2025). The issues seem to be evident in the twin cities of Islamabad and Rawalpindi, owing to the fact that the transgender population seems to be dependent on their internal networks despite being marginalized and ostracized (Sultan et al., 2020). It has been found through earlier research that economics, health, and mental well-being are interconnected and should be studied in conjunction with each other.

Based on the review of the literature, there are some gaps that should be noted when performing the assessment of the socio-economic, physical, and psychological condition of the transgender people in the twin cities of Islamabad and Rawalpindi, Pakistan. Despite the fact that the issue of the treatment of transgender people in the country has become quite relevant, there is not enough empirical data concerning the situation of the transgender people in the two specified cities in terms of their socio-economic condition, physical and psychological state. At present, most studies are focused on such issues as discrimination against transgender people, abuse of their rights, and HIV risks.

Nonetheless, the issue of lack of representation of the transgender population in health-related research has been raised due to the stigma associated with them, discrimination against them, and recruitment problems experienced by researchers. Thus, important information regarding the health needs of the transgender population, their utilization of health services, types of health problems, and psychological experiences has been insufficiently collected until now. Though some previous research findings show discrimination within health care institutions, few studies have examined the barriers faced by the transgender community in cities like Islamabad and Rawalpindi.

There is still scope for exploring mental health issues among the transgender community in Pakistan. Although most existing literature focuses on social exclusion, violence, and discrimination faced by the transgender community, not enough research has been carried out in order to understand the psychological impact of these issues, including the experience of depression, anxiety, emotional distress, loneliness, coping strategies, and suicidality in the transgender population in urban settings.

Both Islamabad and Rawalpindi are known to provide more access to healthcare services and education as compared to the rest of the country. Still, not enough research has been conducted to determine whether the lives of transgender persons in these cities have improved in any way or whether they continue to face economic and health problems. The same is true regarding the passing of the Transgender Persons (Protection of Rights) Act in 2018.

Therefore, it is crucial to conduct an all-inclusive study on the socio-economic conditions and psychological well-being of the transgender community of the twin cities of Islamabad and Rawalpindi. Conducting such a study would not only help fill the gaps that exist in the literature but would also facilitate the development of health policies, as well as the resolution of socio-economic problems of the transgender community. This is the main purpose of the current study.

Research Methodology

The research methodology of the current study consists of the following steps.

Research Design

In this case, the most appropriate method of research adopted by the researcher is the quantitative cross-sectional descriptive design to evaluate the socioeconomic status and physical and psychological well-being of transgender persons. This type of study would be appropriate in the current study because it is a type of study that requires collecting information about the participants at a certain point in time. In addition, structured questionnaires have been used in collecting the data in order to carry out systematic analysis of the data collected. As a result of using this type of design,

the researcher is able to give an account of the characteristics of the population under study based on their socioeconomic status, physical and psychological well-being. The use of this kind of method of study is appropriate since there is no manipulation of variables in the study, as the study just gives an account of what exists without changing anything.

Target Population

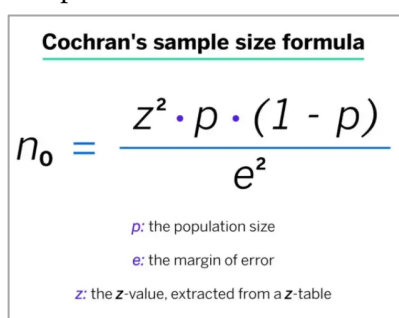
According to the 2023 census of Pakistan, the total number of transgender individuals is about 20 thousand. The target population is all the transgender individuals residing in the territory of Islamabad and Rawalpindi.

Sampling Technique

Random sampling techniques and snowball sampling techniques have been used in sample selection for the current study.

Sample Size

Sampling is important especially in a study which is based on primary information. The total population of transgender individuals in Islamabad / Rawalpindi is 1350 (Govt. of Pakistan, 2023). The following Cochran's sample size formula has been used to calculate the sample size. The screenshot of the formula is as under.



The screenshot shows the Cochran's sample size formula:
$$n_0 = \frac{z^2 \cdot p \cdot (1 - p)}{e^2}$$
 Below the formula, there are three definitions:

- p : the population size
- e : the margin of error
- z : the z -value, extracted from a z -table

The population was set at a 95% confidence level, and a sample of 300 transgenders was found. The sampled transgenders were searched through the snowball sampling technique. A questionnaire was circulated among 300 transgenders to collect data about their socioeconomic and health-related issues.

Selection of Variables

The variables have been selected to assess Socioeconomic, Physical, and mental health Status of Transgender Individuals in the Twin Cities of Islamabad and Rawalpindi, Pakistan, from the given literature. The selected variables are shown in Table 1.

Table 1

Selection of Variables

S.No	Variables	Symbol
1	Highest level of education completed (In Years)	Edu
2	Employment status	Emp
3	Type of housing	Ths
4	Experience of eviction or denial of housing due to gender identity	Evh
5	Access to healthcare services	Ahs
6	Discrimination in healthcare settings?	Dhs
7	Access to mental health support	Amh
8	General health status	Ghs
9	Feeling down, depressed, or hopeless	Fdh
10	Little interest or pleasure in doing things	Lip

Source: selection of variables from literature

Data Collection Tool

The study has begun with a descriptive assessment of the socio-demographic, economic, physical, and mental health status of transgender individuals. A questionnaire has been developed to collect data.

Data Analysis

Data has been analyzed through descriptive statistics using SPSS- 27

Results and Discussion

The study is based on descriptive analysis of the variables included. The primary data was collected through a questionnaire and then analyzed through descriptive statistics using SPSS- 27. The results are summarized in Table 2.

Table 2

Descriptive Analysis of Variables

S.No	Variables	Major Findings	Detailed Results	Consistency of results with available literature
1	Highest level of education completed (In Years)	About 40 percent of selected transgender individuals have no formal education.	See Annexure (A-1)	Wilkinson et al. (2018) and Preetha et al. (2024)
2	Employment status	A marginal sampled population has no job (30 percent)	See Annexure (A-2)	Noreen et al., (2024) and Sears et al., (2024)
3	Type of housing	About 78 percent of the sampled population live in rented houses that are not satisfactory to live in.	See Annexure (A-3)	Breslow et al., (2026)
4	Experience of eviction or denial of housing due to gender identity	Majority of sampled population (51 percent) experienced eviction or denial of housing due to gender identity	See Annexure (A-4)	Flood & Hochstenbach (2025).
5	Access to healthcare services	66 percent of the respondents think that it is difficult to have access to health care services	See Annexure (A-5)	Gafvelin (2025) and Breslow et al. (2026)
6	Discrimination in healthcare settings	About 37 percent of selected transgender individuals have faced discrimination in healthcare settings.	See Annexure (A-6)	Ogarrio et al. (2025) and Constantinou & Nikitara (2025)
7	Access to mental health support	About 84 percent of respondents have no access to mental health support	See Annexure (A-7)	Reisner et al. (2025) and Valentine & Shipherd (2018)
8	General health status	It was found that about 17 percent of respondents have very poor general health status.	See Annexure (A-8)	Scheim et al., (2024)
9	Feeling down, depressed, or hopeless	It was found that about 84 percent of the respondents have either more than half days or nearly every day feel down, depressed, or hopeless.	See Annexure (A-9)	Wong et al., (2026)
10	Little interest or pleasure in doing things	It was found that about 81 percent of the respondents have either more than half days or nearly no interest or pleasure in doing things.	See Annexure (A-10)	Reisner et al., (2025) and Wong et al., (2026)

Source: Researcher's calculations using SPSS- 27

It is apparent from Table 2 that the socioeconomic, physical, and mental health Status of transgender individuals in the twin cities of Islamabad and Rawalpindi is very poor. About 40 percent of selected transgender individuals have no formal education. A marginal sampled population has no job (30 percent). About 78 percent of the sampled population live in rented houses, which are not satisfactory to live in. The majority of the sampled population (51 percent) experienced eviction or denial of housing due to gender identity. More than 66 percent of the respondents think that it is difficult to have access to health care services. About 37 percent of selected transgender respondents have faced discrimination in healthcare settings. About 84 percent of respondents have no access to mental health support. It was found that about 17 percent of respondents have very poor general health status. It was also found that about 84 percent of the respondents have either more than half days or nearly every day feel down, depressed, or hopeless. It was found that about 81 percent of the respondents have either more than half days or nearly every day little interest or pleasure in doing things.

Conclusion

The findings of this study indicate that transgender individuals living in Islamabad and Rawalpindi face multiple, interconnected challenges affecting their socioeconomic conditions, physical health, and mental well-being. These difficulties are shaped by factors such as social exclusion, discrimination, limited access to education, employment, and healthcare, which collectively influence their overall quality of life. The target population is all the transgender individuals residing in the territory of Islamabad and Rawalpindi. Random sampling techniques and snowball sampling techniques have been used in sample selection for the current study. The total population of transgender individuals in Islamabad / Rawalpindi is 1350 (Govt. of Pakistan, 2023). The population was put at a 95% confidence level, and a sample of 300 transgenders was found. A questionnaire has been developed to collect data. Data have been analyzed through descriptive statistics using SPSS- 27. The results of the study show that about 40 percent of selected transgenders have no formal education. A marginal sampled population has no job (30 percent). About 78 percent of the sampled population live in rented houses that are not satisfactory to live in. The majority of the sampled population (51 percent) experienced eviction or denial of housing due to gender identity. More than 66 percent of the respondents think that it is difficult to have access to health care services. About 37 percent of selected transgender respondents have faced discrimination in healthcare settings. About 84 percent of respondents have no access to mental health support. It was found that about 17 percent of respondents have very poor general health status. It was also found that about 84 percent of the respondents have either more than half days or nearly every day feel down, depressed, or hopeless. It was explored that about 81 percent of the respondents have either more than half days or nearly every day little interest or pleasure in doing things.

The major policy implications of the study are given as follows;

- ▶ The findings highlight the need for public healthcare institutions to provide services that are welcoming and accessible to transgender individuals. Healthcare professionals should receive appropriate training to deliver respectful, non-discriminatory care that addresses both physical and mental health needs.
- ▶ Improving access to affordable mental health services is equally important. Government agencies and healthcare providers should expand counseling and psychological support programs to help transgender individuals cope with stress, discrimination, and other mental health challenges.
- ▶ Educational institutions should adopt and enforce policies that protect transgender students from discrimination and harassment. Creating safe and inclusive learning environments can improve educational participation and reduce school dropout rates.

- ▶ Employment policies should promote equal opportunities by preventing discrimination during recruitment, hiring, promotion, and workplace practices. Public and private organizations can also develop skills training and career development initiatives to enhance the economic inclusion of transgender individuals.
- ▶ Social protection measures should include the establishment and expansion of safe housing options and emergency shelters for transgender individuals who experience homelessness, family rejection, or violence. These services can provide temporary protection while supporting long-term social reintegration.
- ▶ Public awareness initiatives are needed to challenge misconceptions and reduce stigma associated with transgender identities. National and community-based campaigns can encourage greater understanding, respect, and social acceptance through education and positive representation.
- ▶ Finally, transgender community organizations should be actively involved in the design, implementation, and evaluation of policies and programs. Their participation can ensure that interventions reflect the community's actual needs and contribute to more effective and sustainable outcomes.

References

- Alamgir, A., & Azhar, S. (2025). Belonging beyond margins: Relocation, housing insecurity, and naming politics of young transgender people in Pakistan. *Belonging*, 1(4), 350-363. <https://doi.org/10.1177/30290805251398411>
- Breslow, A. S., Babbs, G., Cavic, E., Thomas, I., Gibaldi, I., Progovac, A. M., Restar, A., Sims, G. M., Alpert, J., Cook, B. L., Fiori, K. P., Levano, S., & Chambers, E. C. (2026). Fewer screens, greater needs: Housing insecurity and healthcare costs for transgender patients in a safety-net system. *Health Affairs Scholar*, 4(1). <https://doi.org/10.1093/haschl/qxaf226>
- Constantinou, C. S., & Nikitara, M. (2025). Older transgender people's discrimination in healthcare: A scoping review. *Geriatrics*, 10(6), 140. <https://doi.org/10.3390/geriatrics10060140>
- Dayani, K. S., Minaz, A., Soomar, S. M., Rashid, R. S., & Dossa, K. S. (2019). Transgender community in Pakistan: A look into challenges and opportunities. *National Journal of Advanced Research*, 5(2), 36-40.
- Ebert, M. R., Guo, M. S., Klein, S. J., Doren, E. L., & Klement, K. A. (2025). Barriers of access to gender-affirming health care and surgery: A systematic review. *Transgender Health*, 10(5), 418-427. <https://doi.org/10.1089/trgh.2023.0020>
- Flood, M., & Hochstenbach, C. (2025). Queer in a housing crisis: How nonbinary and genderqueer young adults navigate housing precarity. *Social & Cultural Geography*, 26(8), 920-944. <https://doi.org/10.1080/14649365.2025.2494561>
- Gafvelin, C. (2025). *Global barriers to transgender healthcare* (Master's thesis, University of Washington).
- Government of Pakistan. (2018). *The Transgender Persons (Protection of Rights) Act, 2018 (Act No. XIII of 2018)*. Ministry of Law and Justice, Government of Pakistan.
- Jessani, A., Berry-Moreau, T., Parmar, R., Athanasakos, A., Prodger, J. L., & Mujugira, A. (2024). Healthcare access and barriers to utilization among transgender and gender diverse people in Africa: A systematic review. *BMC Global and Public Health*, 2(1). <https://doi.org/10.1186/s44263-024-00073-2>
- Kalhor, J. A., & Khan, M. (2023). Socio-economic grievances of transgender community in Pakistan: A case study of the capital city, Islamabad. *Annals of Human and Social Sciences*, 4(4), 470-480. [https://doi.org/10.35484/ahss.2023\(4-iv\)45](https://doi.org/10.35484/ahss.2023(4-iv)45)
- Lees, K. (2022). *The Trans Guide to Mental Health and Well-Being*. Jessica Kingsley Publishers.
- Mansoori, N., Ansarie, M., Mubeen, S. M., & Kanwal, U. (2025). Unveiling mental health challenges: Investigating depression, anxiety and stress among transgender individuals in Sindh, Pakistan. *Journal of Public Mental Health*, 24(4), 234-243. <https://doi.org/10.1108/jpmh-07-2024-0086>
- Mezza, F., Mezzalira, S., Pizzo, R., Maldonato, N. M., Bochicchio, V., & Scandurra, C. (2024). Minority stress and mental health in European transgender and gender diverse people: A systematic review of quantitative studies. *Clinical Psychology Review*, 107, 102358. <https://doi.org/10.1016/j.cpr.2023.102358>
- Noor, S., Ullah, I., Hassan, M., Yasir, M., & Ahmad, F. (2024). Rights of transgender in Islam and contemporary practices in Pakistan: An analytical study. *Social Science Review Archives*, 2(2), 1212-1227. <https://doi.org/10.70670/sra.v2i2.174>
- Noreen, S., & Rashid, K. (2024). Employers Demand from Transgender regarding Job Accommodation. *Pakistan Social Sciences Review*, 8(4), 01-13. <https://ojs.pssr.org.pk/journal/article/view/809>
- Ogarrio, K., Durbin-Matrone, R., De Leon, B., Wright, L. A., Restar, A., Singh, A. A., & Stojanovski, K. (2025). Forms of transphobia and their influence on health outcomes among transgender, nonbinary, and gender diverse individuals: A global systematic review. *International Journal of Transgender Health*, 1-34. <https://doi.org/10.1080/26895269.2025.2553739>

- Pervaiz, H. (2024). Beyond the Binary: Exploring the Cultural Identity and Practices of the Hijra Community in Lahore. *Annals of Human and Social Sciences*, 5(3), 25-33. <https://ojs.ahss.org.pk/journal/article/view/722>
- Preetha Devi, N. B., & Uma, A. N. (2024). The impact of education on the lives of transgender individuals: A comprehensive study. *Educational Administration: Theory and Practice*, 30(6), 3797-3800. <https://doi.org/10.53555/kuey.v30i6.5425>
- Reisner, S. L., Bradford, J., Hopwood, R., Gonzalez, A., Makadon, H., Todisco, D., Cavanaugh, T., VanDerwerker, R., Grasso, C., Zaslow, S., Boswell, S. L., & Mayer, K. (2015). Comprehensive transgender healthcare: The gender affirming clinical and public health model of Fenway health. *Journal of Urban Health*, 92(3), 584-592. <https://doi.org/10.1007/s11524-015-9947-2>
- Scheim, A. I., Rich, A. J., Zubizarreta, D., Malik, M., Baker, K. E., Restar, A. J., Van der Merwe, L. A., Wang, J., Beebe, B., Ridgeway, K., Baral, S. D., Poteat, T., & Reisner, S. L. (2024). Health status of transgender people globally: A systematic review of research on disease burden and correlates. *PLOS ONE*, 19(3), e0299373. <https://doi.org/10.1371/journal.pone.0299373>
- Sears, B., Mallory, C., Lin, A., & Castleberry, N. (2024). Workplace experiences of transgender employees. Williams Institute, UCLA School of Law. <https://escholarship.org/content/qt6pp0c01k/qt6pp0c01k.pdf>
- Suarez, N. A., Trujillo, L., McKinnon, I. I., Mack, K. A., Lyons, B., Robin, L., Carman-McClanahan, M., Pampati, S., Cezair, K. L., & Ethier, K. A. (2024). Disparities in school connectedness, unstable housing, experiences of violence, mental health, and suicidal thoughts and behaviors among transgender and cisgender high school students — Youth risk behavior survey, United States, 2023. *MMWR Supplements*, 73(4), 50-58. <https://doi.org/10.15585/mmwr.su7304a6>
- Sultan, S., Mehmood, B., Ahmed, Z., Tahira, K., Rahim, M., & Farhan, F. (2020). Health and educational issues of transgender (khawaja- Siras) in Pakistan. *Journal of Khyber College of Dentistry*, 10(04), 67-71. <https://doi.org/10.33279/jkcd.v10i04.195>
- United Nations Development Programme. (2023). *Transgender people and human rights: Advancing equality and inclusion*. United Nations Development Programme.
- Valentine, S. E., & Shipherd, J. C. (2018). A systematic review of social stress and mental health among transgender and gender non-conforming people in the United States. *Clinical Psychology Review*, 66, 24-38. <https://doi.org/10.1016/j.cpr.2018.03.003>
- Wilkinson, L., Pearson, J., & Liu, H. (2018). Educational attainment of transgender adults: Does the timing of transgender identity milestones matter? *Social Science Research*, 74, 146-160. <https://doi.org/10.1016/j.ssresearch.2018.04.006>
- Wilson, L. C., Newins, A. R., Kassing, F., & Casanova, T. (2024). Gender minority stress and resilience measure: A meta-analysis of the associations with mental health in transgender and gender diverse individuals. *Trauma, Violence, & Abuse*, 25(3), 2552-2564. <https://doi.org/10.1177/15248380231218288>
- Wong, C. Y., Ngan, S. T., Cheng, P. W., Tang, W. K., Chow, L. Y., & Kam, W. K. (2026). Effect of gender-affirming treatments on depression and anxiety symptoms in transgender people: A retrospective cohort study. *Frontiers in Psychiatry*, 16. <https://doi.org/10.3389/fpsyt.2025.1709778>
- World Health Organization. (2024). *Transgender and gender diverse people: Health and human rights considerations*. World Health Organization.
- Yadegarfar, M., Meinhold-Bergmann, M. E., & Ho, R. (2014). Family rejection, social isolation, and loneliness as predictors of negative health outcomes (Depression, suicidal ideation, and sexual risk behavior) among Thai male-to-Female transgender adolescents. *Journal of LGBT Youth*, 11(4), 347-363. <https://doi.org/10.1080/19361653.2014.910483>
- Yarbrough, E. (2018). *Transgender mental health*. American Psychiatric Pub.

Annexure

A-1

Highest level of education completed (In Years)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No formal education	118	39.3	39.3	39.3
	Primary school	32	10.7	10.7	50.0
	Secondary school	39	13.0	13.0	63.0
	Higher Secondary	48	16.0	16.0	79.0
	Bachelor's degree	28	9.3	9.3	88.3
	Master's degree	27	9.0	9.0	97.3
	Any other (Please specify-----)	8	2.7	2.7	100.0
	Total	300	100.0	100.0	

Source: Researcher, s calculations using SPSS- 27

A 2

Employment Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Employed full-time	50	16.7	16.7	16.7
	Employed part-time	69	23.0	23.0	39.7
	Self-employed	84	28.0	28.0	67.7
	Unemployed (looking for work)	90	30.0	30.0	97.7
	Unable to work (due to health or other reasons)	7	2.3	2.3	100.0
	Total	300	100.0	100.0	

Source: Researcher, s calculations using SPSS- 27

A 3

Type of Housing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Owned	7	2.3	2.3	2.3
	Rented	234	78.0	78.0	80.3
	Temporary	50	16.7	16.7	97.0
	Homeless	9	3.0	3.0	100.0
	Total	300	100.0	100.0	

Source: Researcher, s calculations using SPSS- 27

A 4

Experience of Eviction or Denial of Housing due to Gender Identity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	153	51.0	51.0	51.0
	No	147	49.0	49.0	100.0
	Total	300	100.0	100.0	

Source: Researcher, s calculations using SPSS- 27

A 5*Access to healthcare services*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.Easy	102	34.0	34.0	34.0
	.Difficult	198	66.0	66.0	100.0
	Total	300	100.0	100.0	

Source: Researcher, s calculations using SPSS- 27

A 6*Discrimination in healthcare settings*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	110	36.7	36.7	36.7
	No	190	63.3	63.3	100.0
	Total	300	100.0	100.0	

Source: Researcher, s calculations using SPSS- 27

A 7*Access to Mental Health Support*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	50	16.7	16.7	16.7
	No	250	83.3	83.3	100.0
	Total	300	100.0	100.0	

Source: Researcher, s calculations using SPSS- 27

A 8*General Health Status*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Good	103	34.3	34.3	34.3
	Fair	146	48.7	48.7	83.0
	Poor	50	16.7	16.7	99.7
	4.00	1	.3	.3	100.0
	Total	300	100.0	100.0	

Source: Researcher, s calculations using SPSS- 27

A 9*Feeling Down, Depressed, or Hopeless*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	1	.3	.3	.3
	Several days	38	12.7	12.7	13.0
	More than half the days	226	75.3	75.3	88.3
	Nearly every day	26	8.7	8.7	97.0
	4.00	9	3.0	3.0	100.0
	Total	300	100.0	100.0	

Source: Researcher, s calculations using SPSS- 27

A 10

Little Interest or Pleasure in doing Things

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Several days	51	17.0	17.0	17.0
	Morethan half the days	225	75.0	75.0	92.0
	Nearly every day	19	6.3	6.3	98.3
	4.00	5	1.7	1.7	100.0
	Total	300	100.0	100.0	

Source: Researcher, s calculations using SPSS- 27