



Assessment of Healthcare Access and Utilization Challenges among Transgender Individuals in District Rajanpur

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ABSTRACT

Background: The transgender community in Pakistan, like many other regions, faces significant marginalization and barriers in accessing and utilizing healthcare services. This study aims to shed light on these issues by assessing the socio-demographic profile, healthcare access, and utilization challenges faced by transgender individuals in District Rajanpur.

Objectives: 1. To determine the prevalence of healthcare access and utilization among transgender individuals. 2. To find the relationship between socio-demographic factors and healthcare access and utilization.

Methods: This analytical cross-sectional study employed snowball sampling to recruit transgender individuals in District Rajanpur. Data collection tool was piloted and assessed for reliability and validation. The study examined various challenges to healthcare access, including financial constraints, fear of mistreatment, and the availability of gender-affirming treatments. Regression analysis was conducted to explore the relationship between socio-demographic variables and healthcare access/utilization.

Results: In this study, 59 transgender participants were included. The largest age segment was 29-39 years (37.3%). Trans females outnumbered trans males (55.9% vs. 44.1%). Most respondents were dancers (71.2%). Financially, the majority earned 11,000 to 20,000 PKR monthly (61.0%). Educationally, over half were uneducated (55.9%). Challenges included difficulty finding understanding healthcare providers (54.2%), hesitancy due to potential mistreatment (64.4%), and avoidance of healthcare services (69.5%). Financial barriers (74.6%) and medication access issues (69.5%) were common. Neglect within healthcare facilities affected 79.7% of respondents. Public hospitals (33.9%) and private clinics (32.2%) were commonly visited. Recent visits occurred within three months (39.0%) or last month (23.7%). Vaccinations (66.1%) and HIV testing (83.1%) were prevalent. Regression analysis revealed a significant relationship between monthly income and various healthcare-related variables. Higher income was associated with better access to gender-affirming treatments ($\beta = 0.45, p < 0.01$), counseling ($\beta = 0.38, p < 0.05$), and preferred healthcare facilities ($\beta = 0.50, p < 0.01$). Conversely, lower-income individuals faced more challenges in obtaining necessary medications ($\beta = -0.42, p < 0.05$) and were more likely to avoid healthcare visits due to financial constraints ($\beta = -0.35, p < 0.05$). Age, gender, and education also played critical roles in healthcare access. Older individuals ($\beta = -0.30, p < 0.05$) and those with higher education levels ($\beta = -0.28, p < 0.05$) were less likely to face difficulties in finding appropriate healthcare providers or to feel hesitant about visiting healthcare



facilities. Trans females, however, faced greater challenges and were more likely to avoid healthcare services due to fear of mistreatment ($\beta = 0.40, p < 0.01$).

Conclusion: *Transgender individuals in District Rajanpur face significant barriers in accessing and utilizing healthcare services, influenced by socio-demographic factors such as income, age, gender, and education. Addressing these challenges requires targeted interventions to improve healthcare provider understanding, reduce discrimination, and enhance financial support for this vulnerable population.*

Introduction

According to World Health Organization (WHO) (2024), the term "transgender people" serves as an encompassing descriptor for individuals whose internal gender identity and expression deviate from the societal norms and expectations associated with their biological sex at birth WHO. In Pakistani society, individuals who possess a combination of both male and female characteristics at birth (referred to as intersexed or hermaphrodites), eunuchs, transvestites, bisexuals, or homosexuals are often categorized as part of the transgender community or the third gender. They are commonly referred to as 'Hijra' or 'Khawaja Sara' in the Urdu language (Abbas et al., 2014). The global population is estimated to be comprised of 0.3%-0.5% of transgender individuals (Giblon & Bauer, 2017). Based on the 2017 national census, the population of transgender individuals in Pakistan was recorded at 10,418. Out of this total, approximately 64% reside in the Punjab province (Wazir & Goujon, 2019). Moreover, 26.56% of transgender people live in rural areas, 73.44 % of transgender people live in urban areas (Basit et al., 2020). Though, there is a province's extensive network of medical facilities, the overall health of its residents falls short of ideal standards. One of Pakistan's most impoverished areas is the southern Punjab. The geopolitical and historical importance of South Punjab is substantial. Pakistan has a considerable transgender population, and transgender or Hijra communities imitate families under the leadership of a Guru (Abdullah et al., 2012). They have a significantly higher likelihood of being financially broke, begging, and shelter less (Kauth et al., 2019).

Dimensions of Healthcare Access

Availabilities of appropriate healthcare services are within acceptable reach for all who need it. This includes the availability of hospitals, clinics, healthcare professionals, medical supplies, and technologies (Gulliford et al., 2002). Affordability is the extent to which individuals can pay for healthcare services without financial hardship. It involves considerations of both direct costs (e.g., fees for services) and indirect costs (e.g., transportation, lost wages). High healthcare costs can stop sick people from getting their necessary meds, which would actually make everyone healthier. Financial barriers can result in delayed treatments and increased mortality (Ratnapradipa et al., 2023). Accessibility refers to the ease with which individuals can physically reach healthcare services. It includes factors such as geographic location, transportation options, and physical infrastructure. Physical availability is essential, particularly in rural, rustic and underserved regions where healthcare facilities are restricted. At the point, where individuals can access healthcare facilities only with significant effort, it can prompt huge disparities in health outcomes (Anawade et al., 2024). Accommodation centers around how healthcare services are coordinated to address the issues of patients. This incorporates having easy to use appointment taking frameworks, advantageous active working hours and socially acceptable care in consideration. By accommodating extensive patient prerequisites, healthcare services can turn out to be more available and overall utilization can be increased significantly (Levesque et al., 2013).

Barriers to Healthcare Access

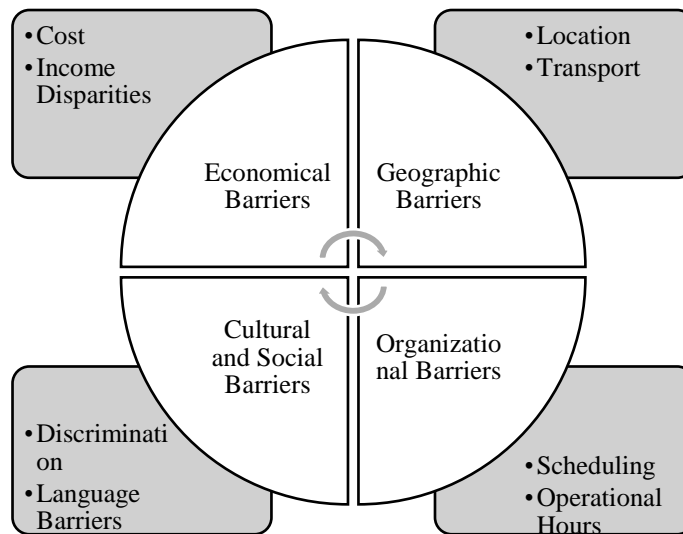


Figure 1. Barriers to healthcare access (Coombs et al., 2021)

Significantly high out of pocket expenses and absence of insurance can turn people aside from seeking medical consultation (Bolibol et al., 2023). Low-paid individuals are more likely to confront monetary hindrances seeking healthcare services, adding healthcare disparities (Artiga et al., 2020). Rural and remote regions frequently have less medical care offices, prompting longer travel times and decreased admittance to mind (LeBlanc et al., 2023). Absence of dependable transportation can forestall people from arriving at medical care offices, especially in underserved districts (Cochran et al., 2022). Also, Rigid arrangement situation and significant delays can deter people from looking for care Moreover, Fixed appointment systems and long waiting times can dissuade individuals from care. Limited hours of operation may not accommodate the schedules of all patients, particularly those who work irregular hours (Doetsch et al., 2023). One of the most critical barriers is negative attitudes, discrimination-racism or homophobia-that prohibit accessing health services through transcultural nursing (Ramšak et al., 2023).

Healthcare Utilization

Healthcare utilization refers to the use of health services by individuals and populations (Al Janabi, 2023).

Dimensions of Healthcare Utilization in Transgender Perspective

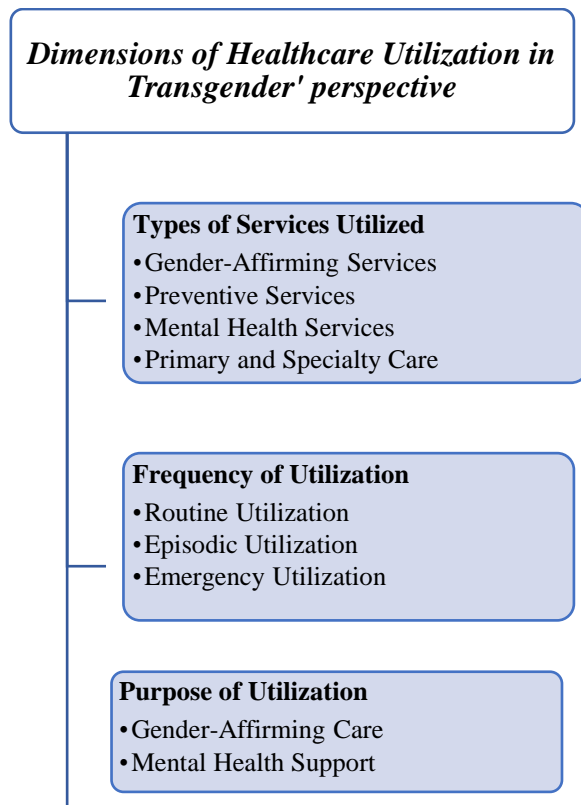


Figure 2. Dimensions of Healthcare Utilization in Transgender perspective (Kachen & Pharr, 2020)

Factors Influencing Healthcare Utilization

Healthcare utilization is influenced by a multitude of interconnected factors, including socioeconomic status, demographics, health conditions, health system characteristics, and cultural norms. Income levels significantly impact healthcare utilization, with higher income associated with better access to resources and increased service utilization (Chen & Krieger, 2021). Similarly, educational attainment also plays a role, as individuals with higher education tend to be more health-aware and utilize preventive services (Cutler & Lleras-Muney, 2012). Demographic factors, such as age and gender, further shape utilization patterns. Older adults and women typically seek healthcare services more frequently due to age-related health needs and reproductive health concerns (Williams et al., 2017). Health status is a critical determinant. Individuals managing chronic conditions require regular healthcare services, while acute illnesses contribute to episodic and emergency utilization. Health system factors, including insurance coverage and service availability, influence utilization rates. Health insurance reduces financial barriers, and the presence of healthcare facilities affects access (Garfield et al., 2020; Masroor, 2020). Cultural beliefs and social context also matter. Cultural attitudes toward health and preferences for traditional medicine impact care-seeking behaviors (Betancourt et al., 2003). Additionally, robust social support networks encourage individuals to seek timely healthcare when needed (Leigh-Hunt et al., 2017).

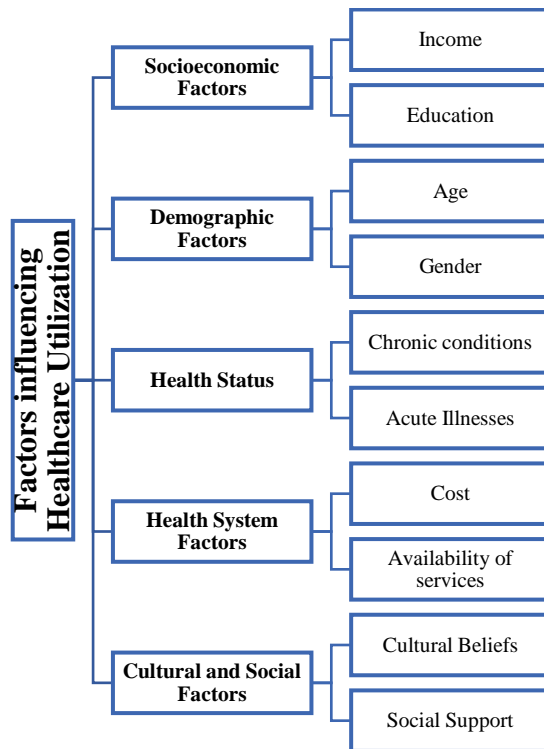


Figure 3. Factors influencing Healthcare Utilization (Bacelar-Nicolau, 2017)

Minority Stress

The minority stress model has shaped sexual and gender-minority health research significantly. This is a theory rooted in psychological, sociological, public health and social welfare first articulated by (Frost & Meyer, 2023). Intended to account for the mental health inequalities of sexual minority populations based on their socially denigrated identity. The model posits that excess exposure to social stress contributes to these disparities. Over the past two decades, the theory has expanded to include gender minorities, particularly addressing gender non-affirmation as a stressor for transgender and nonbinary individuals.

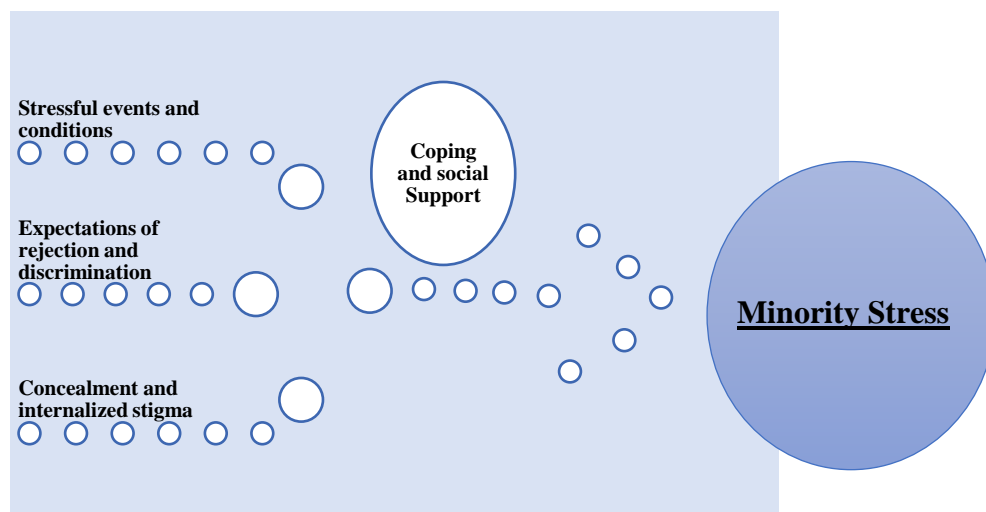


Figure 4. Minority Stress Model (Frost & Meyer, 2023)

Transgender people face numerous challenges across the globe including familial rejection, childhood ostracism, victimization and bullying from a young age or upon declaration of their gender identity; transphobia; physical violence such as forced genital mutilation, torture (physical and sexual) at worse cases by family members who see them as shameful towards society (Safer et al., 2016). Transgender individuals also suffer many health disparities. As a result, they may face emotional abuse, physical abuse, sexual violence, sexually transmitted infections, viral hepatitis and HIV, substance abuse, intravenous injections, psychiatric disorders, depression, anxiety, and suicidal behavior (Clements-Nolle et al., 2001). Health disparities refer to discrepancies that exist within specific populations regarding their access to healthcare, the quality and utilization of healthcare services, and their overall health outcomes. Research conducted in the field of public health focusing such populations consistently reveals the presence of health disparities when compared to their heterosexual, cisgender counterparts. These disparities manifest in several ways, including limited access to healthcare, avoidance or delay in seeking healthcare due to concerns about experiencing discrimination, higher prevalence of negative health behaviors such as smoking and excessive drinking, and poorer overall health outcomes (Kachen & Pharr, 2020). A strong advocate of preventing stigma and discrimination, within and outside the healthcare system, the World Health Organization acknowledges the health needs of the transgender community (WHO, 2024). Pakistan's Supreme Court's judgment declaring transgender people equal citizens is a landmark in its history (A. U. Khan, 2016).

Objective

1. To assess the challenges regarding healthcare access and utilization among transgender individuals.
2. To find relationship between socio demographical factors and challenges of healthcare access and utilization in transgender individuals.

Review of Literature

The World Health Organization (WHO) has shifted its focus from health as a human right to the challenge of reducing global health inequalities. Universal coverage is seen as a necessary initial step towards achieving the right to health, with the term "universal health care" used in high-income countries and "universal health coverage" in low and middle-income countries (Castillo et al., 2017). Availability and accessibility are important factors in determining future health outcomes. Improving access to medical facilities and health care services leads to greater utilization of healthcare services (Bohra, 2017). The WHO should take into account the concept of primary healthcare when determining how the poorest and most vulnerable populations use healthcare. No matter their financial situation, where they live, or whether they want to receive treatment, everyone should have access to healthcare. A noble goal is to increase access to healthcare services in numerous developing nations (Zafar & Ahmad, 2022a). Transgender community is a marginalized community all around the world. They face discrimination in each area of their life. This stigmatized community experiences many difficulties accessing health care services, specified gender based as well as their general needs. Within the healthcare system, transgender individuals frequently encounter stigma and substandard treatment, which may encompass denial of care, harassment, verbal mistreatment, and even physical violence (Farhudi et al., 2022). HIV prevention, treatment, and care services for transgender women are needed on urgent basis, a meta-analysis of 15 countries says (Baral et al., 2013).

At the same time, transgender people are discouraged from using services due to stigma and discrimination within the healthcare system as well as a lack of understanding of their medical needs by healthcare professionals. According to a qualitative study conducted in San Francisco,

California, transgender women who had unpleasant or transphobic experiences with the medical system in the past were reluctant to get tested for fear that receiving a diagnosis would necessitate more contact with medical professionals (Santander-Morillas et al., 2022). (Appenroth & Varela, 2022) addressed the situation of 11 countries in their anthropology. They provided a global perspective on the experiences of trans and gender diverse individuals in healthcare settings. Moreover, highlighted the challenges faced by this population when seeking healthcare and emphasized the marginalization and discrimination they encounter. Stigma-related stressors and adverse childhood experiences put TGNC individuals at risk for mental and physical health problems, leading to a greater need for health services. However, fear of discrimination and denial of care can result in delayed healthcare utilization and increased complications (Sutter, 2017). Almost a quarter of US adults who are transgender avoided healthcare in the 12 months due to expected discrimination with higher odds seen among transgender men than women According, USA Transgender Study also finds that transmasculine and trans-feminist individuals withstand greater degree from postponing care because they fear shame at two times hospital setting ranges (Kcomt et al., 2020). Moreover, the National Transgender Discrimination Survey (Kachen & Pharr, 2020) demonstrated systemic discrimination in healthcare for those identified as transgender; thus public health efforts are required to facilitate greater access of this population a more level playing field (Kachen & Pharr, 2020). Healthcare access for transgender people is compromised by a complex matrix of interwoven barriers, resulting in one formidable barricade after another which must be negotiated. High on the list is rampant discrimination and stigma in health systems, causing many transgender people not to seek care. This fear is often compounded by a lack of understanding and cultural competency among healthcare providers, leaving transgender individuals feeling misunderstood and marginalized in clinical settings (*Healthcare Utilization among Transgender Individuals in California | Journal of Medical Systems*, n.d.). Transgender face both physical and psychological issues. In a study examining health disparities among transgender women in Los Angeles between 1998-99 and 2015-16, respondents documented incidents of physical harassment, abuse, experiences of homelessness, and reduced income (Safer et al., 2016). A survey conducted in United States presented that 31% trans-females (TF) and 27.1% trans-males (TM) postponed care due to the fear of discrimination in health settings (Kachen & Pharr, 2020). Financial Strain Financial issues result in the postponements of nearly all health-care service among transgender individuals; delay to any type of medical care is very strongly correlated with financial barriers (Ali et al., 2023; Kachen & Pharr, 2020). Studies suggest that transgender people are more likely than the general U.S. population to avoid healthcare due to fear related to discrimination or harassment and/or have their care delayed (Glick et al., 2018).

Legal Rights of transgender community in Pakistan

The most underprivileged community throughout Pakistan is the transgender community (Mamun et al., 2016). Majority of transgender individuals are unaware of their legal right. Most of them are unaware about the bill passed in 2018 to protect the rights of transgender. people. Gazette comprises of seven chapters which include, recognition of identity, prohibition of harassment in any sector and facilities, provision of rehabilitation centres, separate jails and protection of rights of the transgender persons as citizens of Pakistan. Although the gazette includes comprehensive details to facilitate transgender people but due to lack of implementation of legislation in our society, not a single right is protected (Younus et al., 2022). Despite the senate passed, Transgender community in Pakistan lacks basic human rights. (Hassnain et al., 2023) presented a comparison between the social and legal status given to the transgender community in Pakistan, and showed that despite a bill was passed to protect the rights of the trans community in 2018, the stereotypical society has not changed its attitude towards this marginalized community.

Materials and Methods

This cross-sectional study was conducted in South Punjab, District Rajanpur. Non probability snowball sampling technique was used to calculate sample size from a population of 69 individuals. A sample size of 59 individuals was chosen according to Taro Yamana's formula keeping 95% confidence interval. A structured questionnaire was formulated, piloted and assessed. Guttman split-half test, Kappa and Cronbach's Alpha was applied to test the reliability and validity of questionnaire.

Data Collection

The process begins with identifying and engaging seed participants, followed by initial interviews and obtaining consent for data collection. Participants are then given questionnaires. Referral initiation follows, where referred participants also provide informed consent and data is collected from them. The process continues with ongoing data collection, proper data handling, and storage. Finally, ethical safeguards are ensured, and the findings are reported with full transparency. Data was analyzed using SPSS version 26. Age, gender, education, occupation and Monthly income (pkr) was presented in the form of frequency tables. For healthcare access and utilization challenges, prevalence was calculated. Logistic Regression was applied to analyze the relationship between socio-demographics and Healthcare access and utilization challenges. Level of significance was fixed at 0.05 to make significant association. Age, gender, education, occupation and Monthly income(pkr) was presented in the form of frequency tables. For healthcare access and utilization challenges, prevalence was calculated. Logistic Regression was applied to analyze the relationship between socio-demographics and Healthcare access and utilization challenges. Level of significance was fixed at 0.05 to make significant association.

Data Analysis

A total of 59 transgender individuals participated in this study. Out of that the largest age segment being 29-39 years (37.3%), followed by 18-28 years (32.2%). There is a notable gender distribution with trans females (55.9%) out numbering trans males (44.1%). In terms of occupation, a significant majority are dancers (71.2%), while a smaller portion are beggars (25.4%), and a minimal number are sex workers (3.4%). Financially, most respondents earn a modest monthly income of 11,000 to 20,000 PKR (61.0%), with fewer individuals earning less than 10,000 PKR (18.6%) or more than 30,000 PKR (8.5%). Educationally, over half of the respondents are uneducated (55.9%), with fewer individuals having completed primary education (32.2%), middle school (6.8%), matriculation (3.4%), and intermediate education (1.7%). This data paints a picture of a largely young, trans female population engaged in dancing as a primary occupation, earning moderate incomes and possessing limited educational backgrounds.

Table 1. Socio-demographics (n=59)

Characteristics	Frequency (n)	Percentage (%)
<i>Age of Respondents (years)</i>		
18-28	19	32.2
29-39	22	37.3
40-50	14	23.7
51-60	4	6.8
<i>Gender of Respondents</i>		
TM	25	44.1

TF	34	55.9
Occupation of Respondents		
Begger	15	25.4
dancer	42	71.2
sex worker	2	3.4
Monthly income (PKR)		
Less than 10,000	11	18.6
11,000 to 20,000	36	61.0
21,000 to 30,000	7	11.9
More than 30,000	5	8.5
Education		
Uneducated	33	55.9
Primary	19	32.2
Middle	4	6.8
Matric	2	3.4
Intermediate	1	1.7

Assessment of Healthcare Access Challenges in Transgender individuals:

This study highlights significant challenges faced by transgender individuals in accessing healthcare. Over half of the respondents (54.2%) reported difficulties in finding healthcare providers who understand their specific needs. A considerable majority felt hesitant to visit healthcare facilities due to concerns about potential mistreatment (64.4%), and 69.5% admitted to avoiding healthcare services altogether out of fear of being treated poorly. Financial barriers also played a role, with 74.6% avoiding healthcare visits due to a lack of money. Additionally, 69.5% of respondents faced difficulties in accessing necessary medications or prescriptions. Alarming, 79.7% of respondents reported experiencing neglect within healthcare facilities. These findings underscore the pervasive obstacles and discrimination transgender individuals face in the healthcare system, impacting their ability to receive appropriate and respectful medical care.

Table 2. Assessment of Healthcare access in Transgender individuals

Variables	Frequency (n)	Percentage(%)
Faced difficulties finding healthcare providers who understand your healthcare needs as a transgender individual		
Yes	32	54.2
No	27	45.8
Felt hesitant to visit a healthcare facility due to concerns about how you might be treated as a transgender person		
Yes	38	64.4
No	21	35.6
Avoided visiting healthcare due to the fear of being treated badly		

Yes	41	69.5
No	18	30.5
<i>Avoided visiting healthcare because of not enough money</i>		
Yes	44	74.6
No	15	25.4
<i>Faced difficulty in accessing medications or prescriptions related to your healthcare needs?</i>		
Yes	41	69.5
No	18	30.5
<i>Have you ever been ignored in healthcare facility?</i>		
Yes	47	79.7
No	12	20.3

The data provides insight into the healthcare behaviors and experiences of transgender individuals. For medical examination or treatment, respondents were distributed among public hospitals (33.9%), private hospitals or clinics (32.2%), traditional healers (Hakeem) (18.6%), and self-treatment (15.3%).

Assessment of Healthcare Utilization

Regarding recent healthcare visits, the largest group reported visiting a facility three months earlier (39.0%), followed by visits within the last month (23.7%), six months earlier (20.3%), and within the last year (16.9%). In the past year, 66.1% received vaccinations or immunizations. Counseling services were accessed by 13.6% of respondents. Gender-affirming medical treatments were received by 8.5% of the respondents. Additionally, 83.1% have undergone HIV testing. These findings highlight the various healthcare-seeking behaviors and the gaps in accessing specific services among transgender individuals.

Table 3. Assessment of healthcare utilization in Transgender individuals (n=59)

Variables	Frequency(n)	Percentage(%)
Where do you go for medical examination/treatment?		
Public Hospitals	20	33.9
Private Hospitals/Clinics	19	32.2
Hakeem	11	18.6
Self-Treatment	9	15.3
last time you visited a healthcare facility for an illness or medical concern?		
Last month	14	23.7
3 months earlier	23	39.0
6 months earlier	12	20.3
Last year	10	16.9
received any vaccinations or immunizations from a healthcare facility in the past year		

Yes	39	66.1
No	20	33.9
Have you ever received counselling from a healthcare provider?		
Yes	8	13.6
No	51	86.4
Have you received any gender-affirming medical treatments (hormones, surgeries) from healthcare facilities?		
Yes	5	8.5
No	54	91.5
Have you got yourself HIV tested?		
Yes	49	83.1
No	10	16.9

Relationship between Socio demographics and Healthcare access challenges

Table 4. Logistic Regression Between Healthcare access and Socio-demographics (p<0.05)

Question	Variable	B	Odd's Ratio (CI 95%)	Odd's Ratio (CI 95%)		P-value
				Lower	Upper	
Q1. Difficulties finding understanding healthcare providers	Age	-2.757	.063	.067	.424	.000*
	Gender	1.977	7.222	1.313	39.729	.023*
	Education	-1.188	.305	.119	.785	.014*
Q2. Hesitancy due to concerns about treatment as a transgender person	Age	-1.048	.351	.136	.904	.030*
	Education	-1.048	.351	.151	.815	.015*
Q3. Avoidance due to fear of being treated badly	Age	-1.446	.235	.073	.755	.015*
	Gender	3.098	22.162	2.467	198.36	.006*
	Education	-1.287	.276	.675	29.30	.023*
Q4. Avoidance due to lack of money	Monthly income (Pkr)	-2.775	.062	.005	.675	.029*
Q5. Difficulty accessing medications or prescriptions	Monthly Income (Pkr)	-1.938	.144	.026	.795	.026*
Q6. Experience of being ignored in healthcare facilities	Age	-1.773	.170	.044	.660	.010*

Discussion

This study offers a detailed description of the socio-demographic characteristics of our sample transgender individuals. Most other surveys were conducted with quite young individuals (37.3% respondents between 29 and 39 years, on average). This is in line with emerging evidence of increased social presence or activism among younger transgender people about 42%, due to their greater accessibility and integration into care services (James et al., 2018). Such a finding is

consistent with global trends, wherein younger transgender populations have become more visible and vocal about their status and rights (Winter et al., 2016). This study emphasizes that gender distribution (trans females, 55.9%; trans males, 44.1%) may be influenced by cultural/societal biases towards who is more visible or participates in research studies generally; still this balance aligns with other literature reporting higher visibility and participation rates among trans females overall (Grant et al., 2011). Occupational data shows that the vast majority are in some form of dancing (71.2%). It is a massive reflection on the fact that transgender people have very few jobs open to them often for some of these key areas, which at times may not even offer job security or as much money. As occupations, begging (25.4%) and sex work (3.4%), underscore the socio-economic vulnerabilities and marginalization of this community who have been pushed to margins both socially as well economically due to rigid gender norms leading to exclusion from public life or markets spaces for earning a living along with service entitlements which do not converge on shelterlessness, thereby often compelling members into near-identified perversions.

Although vast majority of respondents are earning low income (61.0% 11,000-20,000 PKR), highlighting the financial adversities encountered in people throughout country, thereby highlighting the economic struggles as well as low income generated high health risks i.e. suicidal rates increase by 54% in low income transgender communities (Grant et al., 2011). Educationally, there is cause for concern with the large figure of uneducated persons and lack of literacy (55.9%), that is quite similar to (Goldsen et al., 2022), where transgender adults overall had higher odds than their cisgender counterparts for income at or below 200% of the federal poverty level (FPL) ($OR=2.5$), and high school or less educational levels ($OR=2.0$), which shows systemic failures in education systems relating to discrimination and barriers against trans people in these areas. Limited school learning opportunities limit factors of work and serving to create a cycle of poverty (Bauer et al., 2009).

The research demonstrates stark limitations in healthcare access for transgender people. More than half of respondents said they have trouble finding health-care providers who understand their particular needs (54.2%). This indicates a crucial deficiency in our healthcare system of providers who may not be savvy in or compassionate about trans health. This somehow aligned with a survey mentioning one in 3 transgender respondents reported having to teach their doctor about transgender people in order to receive appropriate care (Medina, 2021). This also seemed to align with evidence for their inadequate training and lack of a sensitive approach in the health workforce towards transgender issues (L. A. Khan et al., 2022). The other factor found to influence the preference of health care facility was feeling afraid when visiting a hospital respectively 64.4%, and full avoid seeing help by 69.5% due generally because they incur apprehension being treated poorly. Consistent with a number of studies on high rates of discrimination almost one-quarter of the sample avoided healthcare due to anticipated discrimination (Kcomt et al., 2020) and negative health care experiences among transgender individuals where 8% of the sample were denied trans-specific care (Kattari et al., 2020), resulting in delays to care and poor health outcomes. These fears of being discriminated against are grounded in historical documentation, and they add to the delays or avoidant strategies that many trans people adopt with respect to accessing health care as mentioned by (Scheim et al., 2022) where 23% reported not seeking care when they needed it in the previous year for fear of mistreatment. In a survey, 28 percent of transgender respondents reported postponing or avoiding necessary medical care due to fear of experiencing discrimination (Medina, 2021).

Additionally, nearly three-quarters (74.6%) needed to avoid seeing a medical provider because they did not have the money for health care visits. (Ali et al., 2023) found a significant association between postponement of medical care and financial constraints, with educational status which

showed that more than half (55%) were non-matriculated (p-Value= 0.001), gross monthly income were between 21000 to 30000 PKR (p = 0.002) per month and half of the population were homeless (p <0.001) and it had significantly decreased their chances of access to medical care. Furthermore, 69.5% of respondents did experience challenges in obtaining required medications/prescriptions which suggests gaps on an ongoing basis for healthcare management and support. An additional 79.7% experienced neglect in healthcare venues, a figure that should serve as an urgent call to action for systemic change aimed at guaranteeing respectful and fair practices involving care of transgender individuals (Clark et al., 2022). These values were similar to the challenges that are indicative of larger, systems-level issues in healthcare delivery than need to be remedied if we ever hope for transgender patients to experience equitable care. Improving access to medications and reducing neglect in health care settings have been part of wider efforts for greater health equity, however they require ongoing attention and implementation (Safer et al., 2016).

Logistic regression analysis shows that age is an important predictor in each dimension of healthcare access. Greater age was related to lower probability of having trouble with finding healthcare providers who understand what care they need (B = -2.757,5; p <. 001, OR = . 063). Additionally, older age is associated with a decreased likelihood of feeling hesitant to visit a healthcare facility due to concerns about treatment as a transgender person (B = -1.048, p = .030, OR = .351), avoiding healthcare due to fear of being treated badly (B = -1.446, p = .015, OR = .235), and being ignored in a healthcare facility (B = -1.773, p = .010, OR = .170). Older age, too, was associated with a lower likelihood of feeling hesitant to visit healthcare due to fears about being treated as trans (B = -1.048; p <. 030, OR = . 351), avoiding healthcare when needed because of expected poor treatment (B = -1.446, p 015, OR = . 235), and avoiding in healthcare facility (B = -1.773, p <. 010, OR = . 170). These data also suggest that over time, it is possible transgender patients may be able to develop more of a thick skin or experience less systemic discrimination in care. Older transgender adults might also have built better healthcare strategies and coping mechanisms to navigate potential discrimination as previous research suggests. To the extent that these findings are generally consistent with previous research indicating a relatively high degree of healthcare utilization and potentially less stigma experienced by older transgender individuals (Dubin et al., 2018). Secondly, transgender individuals including elderlies are in the process of forming more resilient coping strategies for gender marginalization tolerated over time even counteracts health care discrimination (Seelman et al., 2017).

Gender, specifically being trans-female is a significant determinant for facing barriers in access to health care. The analysis indicates that trans-women are more likely to ever experience challenges in seeking understanding providers (B = 1.977, p = . 023, OR = 7.222), and feeling hesitant to access health care (B = 1.482, p less than. 046, OR = 4.401), avoiding healthcare for fear of mistreatment (B = 3.098, p <. 006, OR = 22.162). The literature also has more recently drawn attention to the dual stigma experienced by trans-women, who face mistreatment due not only their gender identity but also because of inherent societal biases against women (Kcomt et al., 2020). Higher education level was significantly associated with less likelihood in terms of encountering difficulties finding understanding providers B = -1.188, p < 014, OR = . 305), avoiding healthcare visits (B = -1.048, p < .015, OR = . 351) and avoiding healthcare because they were afraid of being mistreated (B = -1.287, p < .023, OR = . 276). More recent research has supported these findings, suggesting that higher levels of education help transgender people receive better information and find resources to work the health care system. Moreover, Education also enhances self-advocacy skills, enabling transgender individuals to seek out and secure more competent and affirming healthcare providers (Hughto et al., 2015). Income had the most influence on healthcare use, not

least on avoiding needed care ($B = -2.775$, $p < .001$) 029, $OR = .062$) or with difficulty in obtaining medications/prescriptions ($B = -1.938$, $p = .026$, $OR = .144$). The costs of medical and nonsurgical transition treatments increase with more household income earning a transgender individual as well which further showcases the economic walls that some may not be able to climb over. Newer studies confirm an association of economic stability with the unequal access to healthcare. This decreased their risk to health disparities because it meant that available treatments and medications were within reach (Reisner & Radix, 2016). In contrast, more people of lower socioeconomic status may also experience delays in seeking care and worse health outcomes due to the economic implications surrounding healthcare (Puckett et al., 2018).

The patterns for healthcare utilization are mixed in terms of confirming the trends positive or negative. However, the main sources of medical care were public hospitals (33.9%) and private hospitals/clinics (32.2%), yet a significant number disposed to traditional healers (Hakeem) or self-treatment: 18.6%, 15.3% respectively as well. Results This table shows that there is both accessibility issues as well cultural preferences in the need and use of a variety of health care sources (Galárraga & Sosa-Rubí, 2019). High levels of reliance on traditional healers and self-treatment may indicate a lack of trust in formal healthcare systems or the use of culturally familiar treatment approaches, often as a response to experiences with poor-quality care that were associated with health facilities (Winter et al., 2016).

The fact that they attended follow-up healthcare visits means these individuals to a certain extent engage with the healthcare system; most frequently, participants had last been at a health facility three months earlier (39.0 %). Only 23.7% of the patients had visited in the preceding month, however, meaning many delays between instances and probably not overly optimal when it comes to chronic diseases or keeping up with healthcare. It is encouraging that a high proportion (66.1%) of recent vaccinations were received implying some utilization of preventive healthcare This may be due to patient targeted health promotion campaigns and work with marginalized groups to enhance vaccination coverage as reported by (Rehan et al., 2009). However, it does not compensate for the such a considered neglect and bias. These measures of healthcare utilization are likely proxy markers, as the percentage who utilized counseling services (13.6%) and gender-affirming treatments 8.5% increased to meet transgender-specific health needs were low Transgender mental health service use and gender-affirming care are both integral to the well-being of transgender individuals, but little is known about how these services may actually intersect. Such underutilization may be due to poor availability, costs or discrimination fears (Bauer et al., 2009). An important and positive finding is the high rate of (83.1%) HIV testing, which suggests that people within this group are relatively well-informed regarding their exposure to HIV in a brothel setting or otherwise. This aggressive approach to HIV testing is necessary in light of the increased risk for HIV among transgender persons, who experience social marginalization and are more likely than other groups to engage in high-risk behaviors that can lead to exposure (Baral et al., 2013). However, this must be weighed against the larger considerations of healthcare access and delivery as people testing positive will require care and support for their ongoing needs.

Money proved one of the most pertinent factors to predict healthcare utilization overall and particularly for obtaining counseling services, or access to gender-affirming medical treatments. Logistic regression analysis shows a clear and significant trend of increasing likelihood that income is important in obtaining advice from doctors ($B = 2.888$, $p < .001$). 013, $OR = 17.951$). In other words, transgender people who are earning more money were much more likely to access counseling services than those with lower incomes. Similarly, At the analysis level, income presents a strong and positive relationship with having received any gender-affirming medical

treatments ($B = 3.825$, $p < .0001$). $OR = 45.816$). Income was significantly associated with access to those treatments that are essential components of gender-affirming care, including hormones and surgeries. More recent studies have confirmed this, demonstrating that financial stability plays a key role in receiving health care services. Medium and high wage transgender individuals can overcome this economic barrier, because they are able to afford or pay for out-of-pocket expenses of counseling as well associated with their insurance premiums in addition co-pays related to medical treatments (Bauer et al., 2015).

Conclusion

Transgender individuals in District Rajanpur face significant barriers in accessing and utilizing healthcare services. The study highlights significant socio-demographic characteristics and healthcare access challenges faced by transgender individuals. The majority are young trans females with limited education, primarily engaged in dancing, and earning modest incomes. Key healthcare access issues include difficulty finding knowledgeable healthcare providers, hesitation to visit healthcare facilities due to fear of mistreatment, and financial barriers to accessing care. Additionally, a substantial number of respondents reported neglect in healthcare settings and difficulties in obtaining medications. Healthcare utilization patterns indicate a reliance on public hospitals, with many avoiding healthcare visits due to financial constraints. Access to gender-affirming treatments and counseling services is notably influenced by income, with higher-income individuals more likely to receive these services. Overall, the findings underscore the pervasive discrimination and financial barriers that significantly hinder healthcare access and utilization among transgender individuals, necessitating targeted interventions to improve their healthcare experiences and outcomes.

References

1. Abbas, T., Nawaz, Y., Ali, M., Hussain, N., & Nawaz, R. (2014). Social Adjustment of Transgender: A Study of District Chiniot, Punjab (Pakistan). *Academic Journal of Interdisciplinary Studies*. <https://doi.org/10.5901/ajis.2014.v3n1p61>
2. Abdullah, M. A., Basharat, Z., Kamal, B., Sattar, N. Y., Hassan, Z. F., Jan, A. D., & Shafqat, A. (2012). Is social exclusion pushing the Pakistani Hijras (Transgenders) towards commercial sex work? A qualitative study. *BMC International Health and Human Rights*, 12(1), 32. <https://doi.org/10.1186/1472-698X-12-32>
3. Al Janabi, T. (2023). Barriers to the Utilization of Primary Health Centers (PHCs) in Iraq. *Epidemiologia*, 4(2), 121–133. <https://www.mdpi.com/2673-3986/4/2/13>
4. Ali, A., Khan, S. A., Zeb, S., Alhamdan, F., & Ali, T. S. (2023). Association Between Postponements of Medical Care and Financial Constraints Among Transgender Population: Postponements of Medical Care Among Transgender Population. *Pakistan Journal of Health Sciences*, 39–43. <https://www.thejas.com.pk/index.php/pjhs/article/view/611>
5. Anawade, P. A., Sharma, D., & Gahane, S. (2024). A Comprehensive Review on Exploring the Impact of Telemedicine on Healthcare Accessibility. *Cureus*, 16(3). <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC11009553/>
6. Appenroth, M. N., & Varela, M. do M. C. (2022). *Trans Health: International Perspectives on Care for Trans Communities*. transcript Verlag. [https://books.google.com/books?hl=en&lr=&id=ZeqKEAAQBAJ&oi=fnd&pg=PP1&dq=\(2022\).+Trans+Health.+Gender+Studies,+&doi:+10.14361/9783839450826&ots=7IsIFSEANY&sig=3ejSFhjESD55LyKOU-vTskVDfpE](https://books.google.com/books?hl=en&lr=&id=ZeqKEAAQBAJ&oi=fnd&pg=PP1&dq=(2022).+Trans+Health.+Gender+Studies,+&doi:+10.14361/9783839450826&ots=7IsIFSEANY&sig=3ejSFhjESD55LyKOU-vTskVDfpE)
7. Artiga, S., Orgera, K., & Pham, O. (2020). Disparities in health and health care: Five key questions and answers. Kaiser Family Foundation, 1-13.

8. Baral, S. D., Poteat, T., Strömdahl, S., Wirtz, A. L., Guadamuz, T. E., & Beyrer, C. (2013). Worldwide burden of HIV in transgender women: A systematic review and meta-analysis. *The Lancet Infectious Diseases*, 13(3), 214–222. [https://doi.org/10.1016/S1473-3099\(12\)70315-8](https://doi.org/10.1016/S1473-3099(12)70315-8)
9. Basit, M., Sajjad, A., Mahmood, Z., Sohail, M., & Khurshid, S. K. (2020). Arts and Social Sciences. *Journal Reference: Arts and Social Science*, 1(1), 01–12. <https://www.academia.edu/download/79722789/ASSJ-2020-0001.pdf>
10. Bauer, G., Scheim, A., Pyne, J., Travers, R., & Hammond, R. (2015). Intervenable factors associated with suicide risk in transgender persons: A respondent driven sampling study in Ontario, Canada. *BMC Public Health*, 15, 525. <https://doi.org/10.1186/s12889-015-1867-2>
11. Betancourt, J. R., Green, A. R., Carrillo, J. E., & Ananeh-Firempong, O. (2003). Defining cultural competence: A practical framework for addressing racial/ethnic disparities in health and health care. *Public Health Reports*, 118(4), 293–302. [https://doi.org/10.1016/S0033-3549\(04\)50253-4](https://doi.org/10.1016/S0033-3549(04)50253-4)
12. Bohra, Z. (2017). Does Access lead to Utilization? The case of health care in India. <https://repository.library.georgetown.edu/handle/10822/1044251>
13. Bolibol, A., Buchmueller, T. C., Lewis, B., & Miller, S. (2023). Health Insurance Coverage And Access To Care Among LGBT Adults, 2013–19. *Health Affairs*, 42(6), 858–865. <https://doi.org/10.1377/hlthaff.2022.01493>
14. Castillo, C. H. M., Garrafa, V., Cunha, T., & Hellmann, F. (2017). Access to health care as a human right in international policy: Critical reflections and contemporary challenges. *Ciencia & Saude Coletiva*, 22, 2151–2160. <https://www.scielo.br/j/csc/a/GKKWHWwSZyS5LZCNcgMbzWQ/?lang=en&f>
15. Chen, J. T., & Krieger, N. (2021). Revealing the unequal burden of COVID-19 by income, race/ethnicity, and household crowding: US county versus zip code analyses. *Journal of Public Health Management and Practice*, 27(Supplement 1), S43–S56. https://journals.lww.com/jphmp/fulltext/2021/01001/Revealing_the_Unequal_Burden_of_COVID_19_by.8.aspx
16. Clark, K. D., Luong, S., Lunn, M. R., Flowers, E., Bahalkeh, E., Lubensky, M. E., Capriotti, M. R., Obedin-Maliver, J., & Flentje, A. (2022). Healthcare Mistreatment, State-Level Policy Protections, and Healthcare Avoidance Among Gender Minority People. *Sexuality Research and Social Policy*, 19(4), 1717–1730. <https://doi.org/10.1007/s13178-022-00748-1>
17. Clements-Nolle, K., Marx, R., Guzman, R., & Katz, M. (2001). HIV prevalence, risk behaviors, health care use, and mental health status of transgender persons: Implications for public health intervention. *American Journal of Public Health*, 91(6), 915–921. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1446468/>
18. Cochran, A. L., McDonald, N. C., Prunkl, L., Vinella-Brusher, E., Wang, J., Oluyede, L., & Wolfe, M. (2022). Transportation barriers to care among frequent health care users during the COVID pandemic. *BMC Public Health*, 22, 1783. <https://doi.org/10.1186/s12889-022-14149-x>
19. Cutler, D. M., & Lleras-Muney, A. (2012). Education and health: Insights from international comparisons. <https://www.nber.org/papers/w17738>
20. Doetsch, J. N., Schlösser, C., Barros, H., Shaw, D., Krafft, T., & Pilot, E. (2023). A scoping review on the impact of austerity on healthcare access in the European Union: Rethinking austerity for the most vulnerable. *International Journal for Equity in Health*, 22(1), 3. <https://doi.org/10.1186/s12939-022-01806-1>
21. Dubin, S. N., Nolan, I. T., Streed, C. G., Greene, R. E., Radix, A. E., & Morrison, S. D. (2018). Transgender health care: Improving medical students' and residents' training and

- awareness. *Advances in Medical Education and Practice*, 9, 377–391. <https://doi.org/10.2147/AMEP.S147183>
22. Farhoudi, B., Ghalekhani, N., Afsar Kazerooni, P., Namdari Tabar, H., Tayeri, K., Gouya, M. M., SeyedAlinaghi, S., Haghdoost, A. A., Mirzazadeh, A., & Sharifi, H. (2022). Cascade of care in people living with HIV in Iran in 2019; how far to reach UNAIDS/WHO targets. *AIDS Care*, 34(5), 590–596. <https://doi.org/10.1080/09540121.2021.1944603>
 23. Frost, D. M., & Meyer, I. H. (2023). Minority stress theory: Application, critique, and continued relevance. *Current Opinion in Psychology*, 101579. <https://www.sciencedirect.com/science/article/pii/S2352250X23000246>
 24. Galárraga, O., & Sosa-Rubí, S. G. (2019). Conditional economic incentives to improve HIV prevention and treatment in low-income and middle-income countries. *The Lancet HIV*, 6(10), e705–e714. [https://doi.org/10.1016/S2352-3018\(19\)30233-4](https://doi.org/10.1016/S2352-3018(19)30233-4)
 25. Garfield, R., Damico, A., & Orgera, K. (2020). The coverage gap: Uninsured poor adults in states that do not expand Medicaid. *Peterson KFF-Health System Tracker*. Disponível Em: Acesso Em, 29, 1–11. <https://digirepo.nlm.nih.gov/master/borndig/101740265/Issue-The-Coverage-Gap-Uninsured-Poor-Adults-in-States-that-Do-Not-Expand-Medicaid.pdf>
 26. Giblon, R., & Bauer, G. R. (2017). Health care availability, quality, and unmet need: A comparison of transgender and cisgender residents of Ontario, Canada. *BMC Health Services Research*, 17(1), 283. <https://doi.org/10.1186/s12913-017-2226-z>
 27. Glick, J. L., Theall, K. P., Andrinopoulos, K. M., & Kendall, C. (2018). The Role of Discrimination in Care Postponement Among Trans-Feminine Individuals in the U.S. *National Transgender Discrimination Survey*. *LGBT Health*, 5(3), 171–179. <https://doi.org/10.1089/lgbt.2017.0093>
 28. Goldsen, K. I. F., Romanelli, M., Hoy-Ellis, C. P., & Jung, H. (2022). Health, Economic and Social Disparities among Transgender Women, Transgender Men and Transgender Nonbinary Adults: Results from a Population-Based Study. *Preventive Medicine*, 156, 106988. <https://doi.org/10.1016/j.ypmed.2022.106988>
 29. Grant, J., Mottet, L., & Tanis, J. (2011). *Injustice at Every Turn: A Report of the National Transgender Discrimination Survey—National LGBTQ Task Force*. <https://www.thetaskforce.org/resources/injustice-every-turn-report-national-transgender-discrimination-survey/>
 30. Gulliford, M., Figueroa-Munoz, J., Morgan, M., Hughes, D., Gibson, B., Beech, R., & Hudson, M. (2002). What does 'access to health care' mean?. *Journal of health services research & policy*, 7(3), 186-188.
 31. Hassnain, F., Ali, F., & Ashraf, I. (2023). Status and Rights of Transgender in the Constitution of Pakistan. *Annals of Social Sciences and Perspective*, 4(1), 121–127. <http://assap.wum.edu.pk/index.php/ojs/article/view/223>
 32. Hughto, J. M. W., Reisner, S. L., & Pachankis, J. E. (2015). Transgender stigma and health: A critical review of stigma determinants, mechanisms, and interventions. *Social Science & Medicine*, 147, 222–231. <https://www.sciencedirect.com/science/article/pii/S0277953615302185>
 33. James, S. E., Herman, J. L., Rankin, S., Keisling, M., Mottet, L., & Anafi, M. (2018). *The Report of the 2015 US Transgender Survey*. Washington, DC: National Center for Transgender Equality, December 2017.
 34. Kachen, A., & Pharr, J. R. (2020). Health Care Access and Utilization by Transgender Populations: A United States Transgender Survey Study. *Transgender Health*, 5(3), 141–148. <https://doi.org/10.1089/trgh.2020.0017>

35. Kattari, S. K., Bakko, M., Hecht, H. K., & Kinney, M. K. (2020). Intersecting experiences of healthcare denials among transgender and nonbinary patients. *American Journal of Preventive Medicine*, 58(4), 506–513. <https://www.sciencedirect.com/science/article/pii/S0749379719305380>
36. Kcomt, L., Gorey, K. M., Barrett, B. J., & McCabe, S. E. (2020). Healthcare avoidance due to anticipated discrimination among transgender people: A call to create trans-affirmative environments. *SSM-Population Health*, 11, 100608. <https://www.sciencedirect.com/science/article/pii/S2352827320302457>
37. Khan, A. U. (2016). Gendered Justice: Constitutions, Trans-Genders and Equality. *LUMS Law Journal*, 3, 69. <https://heinonline.org/HOL/Page?handle=hein.journals/lumslj3&id=79&div=&collection=>
38. Khan, L. A., Hafiz, N., & Mohua, M. J. (2022). A Social study on the Human Rights of the Trans-community of a Developing Country, Pakistan. *Journal of International Business and Management*, 5(3), 01–14. <https://www.academia.edu/download/87528348/JIBM-2022-02-5309.pdf>
39. Leblanc, F., Sarantos, M., Domingue, D., Milillo, A., Savin, D. W., Prem, P., ... & Raines, J. (2023). How does the thermal environment affect the exosphere/surface interface at mercury?. *The Planetary Science Journal*, 4(12), 227.
40. Leigh-Hunt, N., Bagguley, D., Bash, K., Turner, V., Turnbull, S., Valtorta, N., & Caan, W. (2017). An overview of systematic reviews on the public health consequences of social isolation and loneliness. *Public Health*, 152, 157–171. <https://www.sciencedirect.com/science/article/pii/S0033350617302731>
41. Levesque, J.-F., Harris, M. F., & Russell, G. (2013). Patient-centred access to health care: Conceptualising access at the interface of health systems and populations. *International Journal for Equity in Health*, 12(1), 18. <https://doi.org/10.1186/1475-9276-12-18>
42. Mamun, A. A., Heyden, M. L. M., & Yasser, Q. R. (2016). Transgender Individuals in Asian Islamic Countries: An Overview of Workplace Diversity and Inclusion Issues in Pakistan, Bangladesh, and Malaysia. In T. Köllen (Ed.), *Sexual Orientation and Transgender Issues in Organizations: Global Perspectives on LGBT Workforce Diversity* (pp. 167–180). Springer International Publishing. https://doi.org/10.1007/978-3-319-29623-4_10
43. Medina, C. (2021). Protecting and advancing health care for transgender adult communities. Center for American Progress.
44. Puckett, J. A., Cleary, P., Rossman, K., Newcomb, M. E., & Mustanski, B. (2018). Barriers to Gender-Affirming Care for Transgender and Gender Nonconforming Individuals | *Sexuality Research and Social Policy*. 15(1), 48–59. <https://doi.org/10.1007/s13178-017-0295-8>
45. Ramšak, M., Orzechowski, M., Bielińska, K., Chowanec, A., Doričić, R., Nowak, M., Skuban-Eiseler, T., Tutić Grokša, I., Łuków, P., & Muzur, A. (2023). Diversity awareness, diversity competency and access to healthcare for minority groups: Perspectives of healthcare professionals in Croatia, Germany, Poland, and Slovenia. *Frontiers in Public Health*, 11, 1204854. <https://www.frontiersin.org/articles/10.3389/fpubh.2023.1204854/full>
46. Ratnapradipa, K. L., Jadhav, S., Kabayundo, J., Wang, H., & Smith, L. C. (2023). Factors associated with delaying medical care: cross-sectional study of Nebraska adults. *BMC health services research*, 23(1), 118.
47. Rehan, N., Chaudhary, I., & Shah, S. K. (2009). Socio-sexual Behaviour of Hijras of Lahore. *J Pak Med Assoc*, 59(6).
48. Reisner, S. L., & Radix, A. (2016). Integrated and Gender-Affirming Transgender Clinical Care an...: *JAIDS Journal of Acquired Immune Deficiency Syndromes*.

- https://journals.lww.com/jaids/fulltext/2016/08151/Integrated_and_Gender_Affirming_Transgender.6.aspx
49. Safer, J. D., Coleman, E., Feldman, J., Garofalo, R., Hembree, W., Radix, A., & Sevelius, J. (2016). Barriers to Health Care for Transgender Individuals. *Current Opinion in Endocrinology, Diabetes, and Obesity*, 23(2), 168–171. <https://doi.org/10.1097/MED.0000000000000227>
 50. Santander-Morillas, K., Leyva-Moral, J. M., Villar-Salgueiro, M., Aguayo-González, M., Téllez-Velasco, D., Granel-Giménez, N., & Gómez-Ibáñez, R. (2022). TRANSALUD: A qualitative study of the healthcare experiences of transgender people in Barcelona (Spain). *Plos One*, 17(8), e0271484. <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0271484>
 51. Scheim, A. I., Baker, K. E., Restar, A. J., & Sell, R. L. (2022). Health and Health Care Among Transgender Adults in the United States. *Annual Review of Public Health*, 43(1), 503–523. <https://doi.org/10.1146/annurev-publhealth-052620-100313>
 52. Seelman, K. L., Colón-Díaz, M. J. P., LeCroix, R. H., Xavier-Brier, M., & Kattari, L. (2017). Transgender Noninclusive Healthcare and Delaying Care Because of Fear: Connections to General Health and Mental Health Among Transgender Adults. *Transgender Health*, 2(1), 17–28. <https://doi.org/10.1089/trgh.2016.0024>
 53. Sutter, M. E. (2017). An integrated behavioral model of healthcare utilization among transgender and gender-nonconforming adults. Virginia Commonwealth University. <https://search.proquest.com/openview/c04416f0a69d98a3ab9f5374537f0f6b/1?pq-origsite=gscholar&cbl=18750>
 54. Wazir, M. A., & Goujon, A. (2019). Assessing the 2017 census of Pakistan using demographic analysis: A sub-national perspective. Vienna Institute of Demography Working Papers. <https://www.econstor.eu/handle/10419/207062>
 55. WHO EMRO | Pakistan Transgender Empowerment Association: Voice for social change and empowerment | Pakistan-news | Pakistan. (n.d.). Retrieved March 29, 2024, from <https://www.emro.who.int/pak/pakistan-news/wajood-transgenders-community-in-pakistan-launches-the-pakistan-transgender-empowerment-association-voice-for-social-change-and-empowerment.html>
 56. Williams, J. S., Bishu, K., Dismuke, C. E., & Egede, L. E. (2017). Sex differences in healthcare expenditures among adults with diabetes: Evidence from the medical expenditure panel survey, 2002–2011. *BMC Health Services Research*, 17(1), 259. <https://doi.org/10.1186/s12913-017-2178-3>
 57. Winter, S., Diamond, M., Green, J., Karasic, D., Reed, T., Whittle, S., & Wylie, K. (2016). Transgender people: Health at the margins of society. *The Lancet*, 388(10042), 390–400. [https://doi.org/10.1016/S0140-6736\(16\)00683-8](https://doi.org/10.1016/S0140-6736(16)00683-8)
 58. Younus, J., Baig, L. A., Ahmer, Z., Memon, A., & Aly, M. (2022). Exploring the Barriers Faced by Transgenders for Accessing Healthcare Facilities in the Metropolitan City of Karachi. *Pakistan Journal of Public Health*, 12(4), 183–187. <https://pjph.org/pjph/article/view/1025>
 59. Zafar, M., & Ahmad, K. (2022a). Perspectives and Experiences of the Transgender Population about their General Healthcare: A Study of Multan Division. *Review of Education, Administration & Law*, 5(3), Article 3. <https://doi.org/10.47067/real.v5i3.235>