

Health Status of Transgender Person : An Analytical View

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Introduction

Over the years, the body of knowledge on sexuality sublimed with the understanding of gender identity and expression expanded beyond the binary. In 1973, the Board of Directors for the American Psychiatric Association contributed significantly to removing homosexuality from the Diagnostic and Statistical Manual of Mental Disorders (DSM-II) and confirmed further the LGBTQA community beyond an abnormality. This led to the inclusion of the umbrella term denoted by LGBTQA with the growing recognition by various institutions of society; consequently, their fundamental needs, availability and accessibility debate are brought into practice. Specifically; the attention towards the specific healthcare needs of transgender individuals gained momentum to guarantee that adequate healthcare services should be available to support the physical, mental, and emotional well-being of transgender people.

Transgender individuals' gender identity doesn't fit into their determined sex at birth and face multiple challenges in navigating the healthcare system. The healthcare service specific to transgender individuals is hormone replacement therapy, gender-affirming surgeries, mental health care and routine medical services, required to be comprehensive and inclusive of healthcare services that are sensitive to their unique experiences. However, societal stigma, discriminatory practices, and a lack of awareness among healthcare providers often result in significant barriers to receiving appropriate care.

There is a complex intersectionality of biological, psychological, and social factors that contours transgender health hence tailored

healthcare services for transgender individuals are crucial for both healthcare professionals and policymakers. To address this issue, the current chapter will delve into the multifaceted aspects of transgender healthcare, highlighting the specific needs that arise across the lifespan of a transgender person. Through a comprehensive analysis of the need for transgender healthcare and its current availability, this chapter seeks to foster greater understanding, advocacy, and action towards creating an equitable and inclusive healthcare system for transgender individuals. We will explore the current status of healthcare services in the specific context of the world, India and urban healthcare phenomena. Additionally, we will examine promising developments in the field, such as the emergence of specialized clinics and healthcare initiatives aimed at addressing the unique healthcare needs of transgender individuals.

Transgender Health in a Global Context

The transgender population encounters disparities in health and social inequalities related to personal characteristics (such as age, race/ethnicity, sexual orientation, and marital status) and socioeconomic status (including educational attainment, employment status, income, and health insurance) factors recognised to influence the well-being of the general population. However, the majority of existing transgender health research has adopted a limited perspective on trans-health (Lancet Public Health, 2020), concentrating primarily on mental health, cross-sex hormone therapy, and the avoidance of health-compromising behaviours. Physical health examination has predominantly centred on aspects like HIV/AIDS in transgender health research or interventions aimed at gender-affirming medical care. (Reisner et al., 2016).

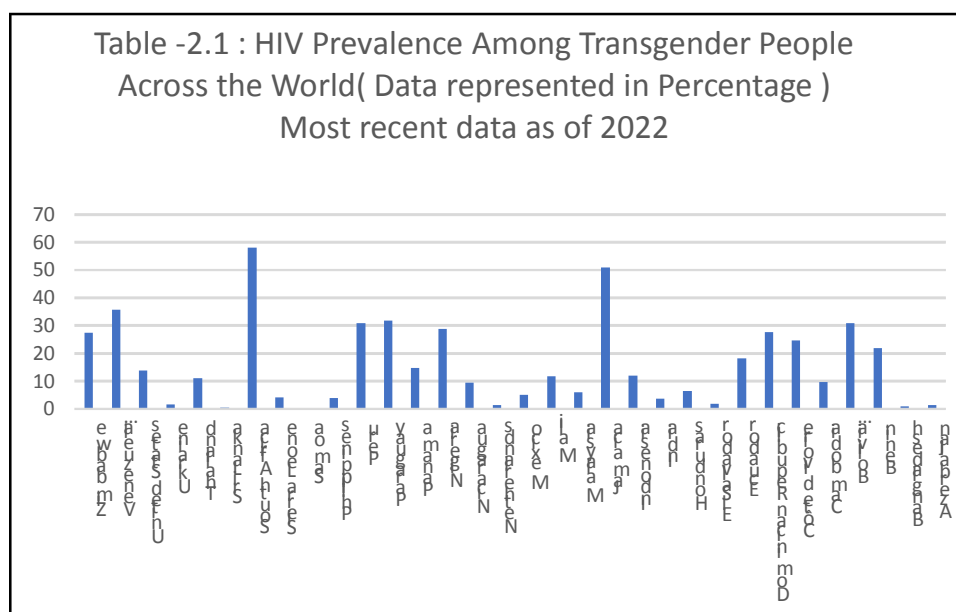
According to data supplied by different government, non-government, and research organisations, the overall number of transgender people is 3% of the entire world population. (Statista, n.d., Gender Identity Worldwide by Country 2023). In Asia and the Pacific, qualitative and quantitative understanding of transgender health is poor and sometimes undocumented. Transgender persons are at considerably higher risk for HIV infection and STI than homosexual and heterosexual males, according to findings from research undertaken in the United States of America and Europe. According to UNAIDS (2020), the HIV prevalence among MSM in Asia (*AND OTHER HEALTH NEEDS OF REGIONAL ASSESSMENT OF HIV, STI TRANSGENDER PEOPLE IN ASIA AND THE PACIFIC*, 2013) is as follows: East Asia at 5.2%, South and South-East Asia at 14.7% (Asia and Pacific). According to UNAIDS (2020), the HIV prevalence among MSM

in Asia is as follows: East Asia at 5.2%, South and South-East Asia at 14.7% (Asia and The Pacific). There has been a 12% decrease in new HIV infections in the region. Obscures are becoming more common in several countries. Gay men and other men who have had sex with other men 5 countries have national preparation programmes in place, and 7 have pilot or demonstration projects (Data Points 272 Global Aids Update 2020, 2010), with Oceania accounting for 4.4%. HIV prevalence among transgender persons ranged from 8% to 68% in 17 epidemiological studies, 14, 18, 19, 20, and HIV incidence ranged from 3.4 to 7.8 per 100 person-years. HIV infection was associated with a lower level of education, 18, 21 unprotected anal intercourse (Poteat et al., 2016).

Transgender persons are approximately 13 times more likely than other adults of reproductive age to be HIV-positive. (*What's In The Blood: Why Trans Persons Can't Be Blood Donors In India*, 2017) Transgender women account for a disproportionately substantial number of new infections in various countries, including Asia and the Pacific (7%), Latin America (6%), and the Caribbean (5%). HIV prevalence among transgender women in Eastern and Southern Africa is expected to be 28.4%; 13.5% in Western and Central Africa; 22.2% in Latin America; and 23.7% in the Caribbean (UNAIDS, 2020). There is little data on HIV epidemiology among transgender males and other transgender communities. There is even less information available on the prevalence and incidence rates of viral hepatitis and other sexually transmitted diseases (STIs) among transgender person.

The data from the "National HIV Behavioral Surveillance" study in 7 U.S. cities during 2019-2020 reveals concerning HIV prevalence among transgender women. The study found varying rates of HIV positivity across age groups, with the highest among those e"50 years old (57.0%). Among racial/ethnic groups, Black/African American transgender women had the highest HIV positivity rate (61.9%), while Asian transgender women had the lowest (20.0%). City-wise, Atlanta had the highest HIV positivity (58.4%), while Seattle had the lowest (20.6%). The study identified a 42.2% HIV positivity rate among 1,561 transgender women participants.

The above data represents the HIV prevalence among transgender people in various countries as of 2022, South Africa has the highest HIV prevalence among transgender individuals at 58%, which is considerably higher than in most other countries on the list. Other countries with notably high HIV prevalence among transgender people include Jamaica (51%), Venezuela (35.8%), and Peru (30.9%).



Data Source: UNAIDS (UNAIDS, 2021)

Moderate HIV Prevalence; countries fall into the moderate range of HIV prevalence among transgender individuals, such as Zimbabwe (27.5%), Paraguay (31.7%), and Dominican Republic (27.7%). Some countries report relatively low HIV prevalence rates among transgender individuals, including Sri Lanka (0.5%), Samoa (0%), Bangladesh (0.9%), and the Netherlands (1.4%).

A total of 27,715 participants were surveyed, encompassing 9,238 transgender women (33.3%; 55.1% weighted; 95% CI, 53.4%-56.7%), 22,658 non-Hispanic White individuals (81.8%; 65.6% weighted; 95% CI, 63.7%-67.5%), and 4,085 individuals aged 45-64 years (14.7%; 33.8% weighted; 95% CI, 32.0%-35.5%). Of the 23,318 individuals responding to inquiries about their perceptions of their clinicians' knowledge, 5,732 (24.6%) affirmed that their clinician possesses almost comprehensive knowledge of transgender care, 4,083 (17.5%) claimed their clinician is well-versed in most aspects, 3,446 (14.8%) indicated some knowledge, 2,680 (11.5%) reported minimal knowledge, and 7,337 (31.5%) were uncertain.(Hiransuthikul et al., 2022). Approximately 1 in 4 transgender adults (5,612 out of 23,557 individuals; 23.8%) reported the need to educate their clinician about transgender people. In total, 3,955 respondents (19.4%; 20.8% weighted; 95% CI, 19.2%-22.6%) rated their health as fair or poor, and 7,392 (36.9%; 28.4% weighted, 95% CI, 26.9%-30.1%) met the criteria for severe

psychological distress. Upon adjusting for covariates, individuals exposed to clinicians with lower perceived knowledge of transgender care exhibited significantly higher odds of fair or poor self-rated health (adjusted odds ratio for minimal knowledge, 2.63; 95% CI, 1.76-3.94; for uncertainty, 1.81; 95% CI, 1.28-2.56) and severe psychological distress for minimal knowledge, 2.33; 95% CI, 1.61-3.37; for uncertainty, 1.37; 95% CI, 1.05-1.79). Respondents who undertook the responsibility of educating their clinician about transgender people faced elevated odds of reporting fair or poor self-rated health (1.67; 95% CI, 1.31-2.13) and severe psychological distress (1.49; 95% CI, 1.21-1.83) compared to those who did not (Miller et al., 2023).

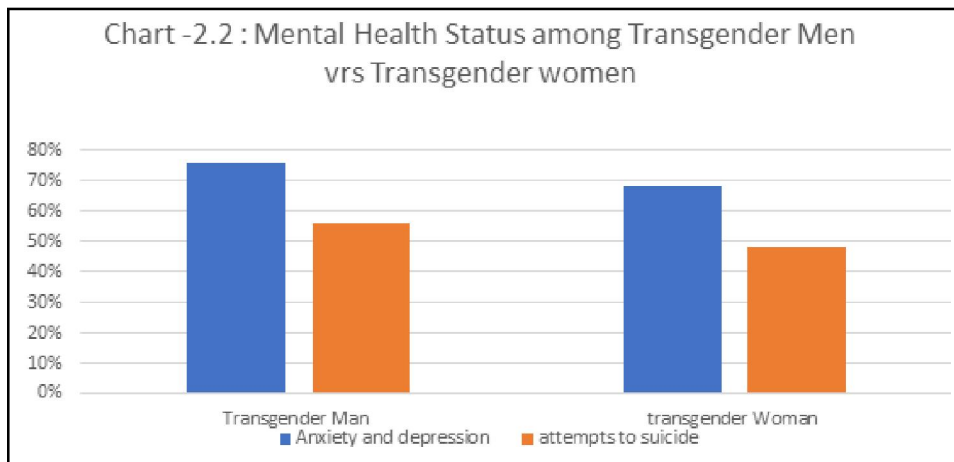
A systematic review of several databases was conducted. Random-effects meta-analysis, meta-regression, and subgroup and sensitivity analyses were performed. Results: A total of 27 studies, pooling 7928 transgender patients who underwent. In this study a total of 27 studies, pooling 7928 transgender patients who underwent GAS (Gender affirmative surgery). The pooled prevalence of regret after GAS was 1% (95% CI <1%–2%). Overall, 33% underwent transmasculine procedures and 67% transfeminine procedures. The prevalence of regret among patients undergoing transmasculine and transfeminine surgeries was <1% (IC <1%–<1%) and 1% (CI <1%–2%), respectively. A total of 77 patients regretted having had GAS. Twenty-eight had minor and 34 had major regret based on Pfaffian's regret classification. The majority had *clear regret* based on the Kuiper and Cohen-Kettenis classification. (Poteat et al., 2016)

This study sheds light on hormone concentration realities among transgender women, demonstrating the importance of tailored care in optimizing hormone therapy outcomes (Hiransuthikul et al., 2022). The study examined hormone concentrations of transgender women undergoing feminizing hormone therapy (FHT) at the Tangerine Clinic in Bangkok, Thailand. Of the 1534 participants, 34.2% had hormone levels within target concentrations defined as 100–200 pg/mL for estradiol (E2) and <50 ng/dL for total testosterone (TT). Baseline E2 and TT concentrations were 29 pg/mL and 298.5 ng/dL, respectively. Only 1.8% had both hormones within target levels, while 0.7% had only E2 and 31.6% had only TT within target levels. Among those without target hormone levels, 64.5% had suboptimal E2 concentrations, and 1.4% had excessive E2. In follow-up visits (n=302), 54.6% achieved or maintained at least one hormone within target concentrations. The study emphasizes the positive impact of the Tangerine Clinic's trans-led, gender-affirming care on achieving target hormone levels. The introduction introduces gender dysphoria and

FHT’s role in aligning secondary sex characteristics. The study acknowledges variations in hormone regimens due to accessibility and individual goals, categorized into estrogen, antiandrogens, and progestins.

The study investigated TB-related stressors and depressive symptoms in 564 South Korean transgender adults. Around 30.7% faced stressors such as limited access to healthcare and gender-related mask issues. 70.2% reported depressive symptoms. Difficulty accessing gender-affirming healthcare due to economic hardship or hospital limitations was linked to increased depressive symptoms. Experiencing multiple stressors correlated with a 1.21 times higher likelihood of depressive symptoms. The study underscores the impact of TB on transgender individuals’ mental health in South Korea(Lee et al., 2021).

Trans Europe Survey 2007 The report “Being Trans in the European Union” presents survey findings on 6,579 trans individuals. It reveals concerning employment discrimination levels (37% during job search, 27% at work) and violence (34% experienced/threatened, 15% in the past year). The data underscores the urgent need for societal and workplace inclusivity reform(FRA, 2016).



Data Source: Compiled Data from William institute

The statistics above reveal a concerning mental health landscape among transgender individuals, with 76% of transgender men and 68% of transgender women reporting anxiety and depression, while 56% of transgender men and 48% of transgender women have attempted suicide. These high prevalence rates underscore the urgent need for comprehensive mental health support, anti-discrimination measures, and community education to address the complex challenges faced by

transgender communities and reduce the alarming rates of anxiety, depression, and suicide attempts within these populations.

Transgender Health in the Indian Context

UNDP report 2010 depicts the fact that the transgender community faces a lower employment rate, with only 65% holding jobs for more than six months in a year, as compared to the 75% employment rate in the general population. This increased livelihood vulnerability contributes to higher risks and susceptibility to HIV. (*Skilling and Livelihoods for Transgender Community | United Nations Development Programme, 2010*).

In India, the harsh realities of poverty and economic exclusion have dire consequences for transgender individuals. These factors not only lead to livelihood deprivation but also act as significant barriers to accessing essential healthcare services, including sex-reassignment surgery for gender transition. Consequently, it is estimated that approximately 20% of the transgender population in India grapples with unmet transgender-specific healthcare needs (Saraswathi et al., 2015).

Moreover, the economic marginalization faced by transgender individuals has compelled a considerable portion, ranging from 20 to 30%, to resort to begging or sex work as their primary means of income (Nations Development Programme et al., 2012). This occupational choice, however, brings its own set of challenges. The criminalization of sex work, coupled with aggressive policing practices, has frequently resulted in acts of violence directed towards this vulnerable population in India and globally (UN Development Programme et al., 2012; PhD et al., 2008). Transgender individuals in India confront significant health disparities driven by social discrimination, limited healthcare access, and mental health challenges. The pervasive stigma they face leads to anxiety and depression, with alarmingly high rates of suicide. Discrimination and violence, both in society and healthcare settings.

India has the world's highest annual incidence of TB as well as the highest TB-related mortality. The transgender persons experience the disease differently. Gender plays a key role in defining access and receive healthcare in the public and private sectors. Tuberculosis is a serious health threat, especially for people living with HIV. People living with HIV are more likely than others to become sick with TB. Worldwide, TB is one of the leading causes of death among people living with HIV (*TB and HIV Coinfection | TB | CDC, n.d.*). Data collected from authorised sites of Government of India and compiled further to develop the understanding on transgender health.

Table -1.1 State-wise Treatment Outcome of Transgender Tuberculosis Patients Notified under National Tuberculosis Elimination Programme (NTEP) in India—2019

States/UTs	TB Patient Notified	Micro Confirmed TB	Cure Rate		Success Rate		Death Rate		Lost to Follow up		Treatment Failure Rate		Regimen Change		Not Evaluated	
			No	% age	No	% age	No	% age	No.	% age	No.	% age	No.	% age	No.	% age
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Andaman & Nicobar Islands	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Andhra Pradesh	120	61	49	80	105	88	6	5	3	2.5	0	0	2	1.7	4	3.3
Arunachal Pradesh	5	0	-	-	5	100	0	0	0	0	0	0	0	0	0	0
Assam	39	14	11	79	33	85	2	5.1	1	2.6	0	0	0	0	3	7.7
Bihar	121	55	34	62	93	77	1	0.8	3	2.5	1	0.8	2	1.7	21	17
Chandigarh	10	3	4	133	10	100	0	0	0	0	0	0	0	0	0	0
Chhattisgarh	41	18	13	72	35	85	4	9.8	1	2.4	0	0	0	0	1	2.4
Dadra and Nagar Haveli and Daman and Diu	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Delhi	87	36	8	22	59	68	1	1.1	8	9.2	0	0	1	1.1	18	21
Goa	2	2	1	50	1	50	0	0	1	50	0	0	0	0	0	0
Gujarat	86	34	28	82	71	83	2	2.3	7	8.1	1	1.2	2	2.3	3	3.5
Haryana	81	38	26	68	63	78	3	3.7	5	6.2	0	0	0	0	10	12
Himachal Pradesh	21	10	7	70	16	76	1	4.8	1	4.8	0	0	1	4.8	2	9.5
Jammu & Kashmir	25	9	8	89	22	88	0	0	0	0	0	0	0	0	3	12
Jharkhand	56	19	10	53	42	75	1	1.8	1	1.8	0	0	0	0	12	21
Karnataka	87	45	24	53	67	77	5	5.7	5	5.7	1	1.1	1	1.1	8	9.2
Kerala	13	7	5	71	11	85	1	7.7	0	0	0	0	0	0	1	7.7

(Contd...)

(Contd....)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Ladakh	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lakshadweep	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Madhya Pradesh	183	68	39	57	147	80	5	2.7	7	3.8	0	0	1	0.5	23	13
Maharashtra	191	88	38	43	152	80	6	3.1	11	5.8	1	0.5	3	1.6	18	9.4
Manipur	3	1	1	100	2	67	0	0	0	0	0	0	1	33.3	0	0
Meghalaya	4	4	0	0	1	25	0	0	0	0	0	0	0	0	3	75
Mizoram	2	2	1	50	2	100	0	0	0	0	0	0	0	0	0	0
-galand	6	1	1	100	6	100	0	0	0	0	0	0	0	0	0	0
Odisha	62	36	30	83	54	87	3	4.8	0	0	0	0	0	0	5	8.1
Puducherry	1	1	0	0	1	100	0	0	0	0	0	0	0	0	0	0
Punjab	78	42	21	50	58	74	3	3.8	2	2.6	0	0	2	2.6	13	17
Rajasthan	142	46	29	63	104	73	4	2.8	11	7.7	2	1.4	2	1.4	19	13
Sikkim	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tamil -du	127	73	44	60	105	83	8	6.3	4	3.1	0	0	1	0.8	9	7.1
Telanga-	79	48	38	79	69	87	5	6.3	1	1.3	0	0	0	0	4	5.1
Tripura	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Uttar Pradesh	435	170	103	61	354	81	18	4.1	22	5.1	3	0.7	6	1.4	32	7.4
Uttarakhand	27	5	5	100	24	89	1	3.7	0	0	0	0	0	0	2	7.4
West Bengal	70	35	24	69	57	81	2	2.9	0	0	1	1.4	0	0	10	14
India	2204	971	602	62	1769	80	82	3.7	94	4.3	10	0.5	25	1.1	224	10

(Source: Ministry of Health and Family Welfare, Govt. of India)

Table-1.1. provides a comprehensive overview of the treatment outcomes for transgender tuberculosis (TB) patients under the National Tuberculosis Elimination Programme (NTEP) in various Indian states and union territories during the year 2019. Notably, some regions demonstrated commendable results in TB control, such as Andhra Pradesh, which achieved an 80% cure rate and an 88% success rate among 120 notified patients. Arunachal Pradesh, with a smaller cohort of five patients, achieved a 100% success rate, indicating effective TB control measures. However, challenges persist in certain areas; Bihar, for instance, reported 121 transgender TB patients with a relatively lower cure rate and a notable number of patients lost to follow-up. Chandigarh, on the other hand, displayed exemplary results with a 133% cure rate among its ten transgender TB patients. These findings underscore the importance of tailored interventions and targeted healthcare strategies to address the unique needs and challenges faced by transgender individuals in their TB care journeys, striving for improved treatment outcomes and elimination of the disease.

The treatment outcomes for transgender tuberculosis (TB) patients within various Indian states and union territories, reflecting the state of TB control in 2019. In Chhattisgarh, where 41 transgender TB patients were identified, the data reveals a 72% cure rate and an 85% success rate. Delhi reported 87 cases, with an 8% cure rate and a 68% success rate, alongside instances of regimen changes and lost-to-follow-up cases. Goa documented a small cohort of 2 patients, with a 50% cure rate and a 50% success rate, indicating effective treatment. Gujarat reported 86 cases, with an impressive 82% cure rate and an 83% success rate, but also a few instances of regimen changes and treatment failures. Haryana, Himachal Pradesh, and Jammu & Kashmir demonstrated varying outcomes, emphasizing the need for targeted interventions. Jharkhand reported 56 cases with a 53% cure rate, while Karnataka had 87 cases with a 53% cure rate, highlighting regional disparities. These findings underscore the importance of tailored strategies to enhance TB care and control for transgender individuals across different regions in India.

The treatment outcomes for transgender tuberculosis (TB) patients within various Indian states and union territories, reflecting the state of TB control in 2019. In Jammu & Kashmir, where 25 transgender TB patients were identified, an impressive 89% cure rate and an 88% success rate were observed. Jharkhand reported 56 cases, with a 53% cure rate and a 75% success rate, underlining region variations in TB outcomes. Karnataka documented 87 cases, displaying a 53% cure rate and a 77% success rate, albeit with a few cases of treatment failure.

Kerala reported 13 cases, with a 71% cure rate and an 85% success rate, with minimal regimen changes. Ladakh and Lakshadweep had no reported cases. In Madhya Pradesh, 183 cases were recorded, with a 57% cure rate and an 80% success rate, but several cases faced regimen changes, highlighting areas for improvement. Maharashtra reported 191 cases, with a 43% cure rate and an 80% success rate, along with some regimen changes and treatment failures. These findings underline the importance of region-specific interventions to enhance TB care and control for transgender individuals across India.

The treatment outcomes for transgender tuberculosis (TB) patients in various Indian states and union territories in the year 2019. In Madhya Pradesh, 183 transgender TB patients were identified, with a 57% cure rate and an 80% success rate. However, the data also revealed several cases of regimen changes and a few treatment failures, highlighting areas for improvement. Maharashtra reported 191 cases, with a 43% cure rate and an 80% success rate. Some cases experienced regimen changes and treatment failures, indicating the complexity of TB care in this region. Manipur, Meghalaya, Mizoram, and Nagaland had smaller cohorts of transgender TB patients, with varying success rates and minimal regimen changes. Odisha reported 62 cases, achieving an impressive 83% cure rate and an 87% success rate, with a few cases experiencing regimen changes. Punjab documented 78 cases, dispelling a 50% cure rate and a 74% success rate. Rajasthan reported 142 cases, with a 63% cure rate and a 73% success rate, along with regimen changes and treatment failures. While Sikkim had no reported cases during this period, Tamil -du reported 127 cases, with a 60% cure rate and an 83% success rate. Several cases faced regimen changes, emphasizing the complexity of TB care for transgender individuals in the region. These findings underscore the need for targeted interventions and region-specific strategies to enhance TB care and control for transgender populations across different states and union territories in India.

The TB vaccination scenario in India's various states and union territories reveals a mixed picture. Telangana stands out with a commendable 79% of its eligible population having received at least one vaccine dose, coupled with relatively low case and death percentages, suggesting effective vaccination efforts. In contrast, Tripura's data is incomplete, hindering a comprehensive a-lysis. Uttar Pradesh, with its substantial population, has administered 435 doses per thousand people, but it faces a challenge in controlling the virus's spread, evident from high case and death percentages. Uttarakhand has achieved a significant vaccination rate of 27% and maintained a

relatively low case percentage. West Bengal shows promise with a 70% c rate and moderate case percentages. Overall, India has made substantial progress, with 2204 doses administered per thousand people, but varying state-level performances highlight the importance of localized strategies in the fight against TB.

There is a significant gap in research when it comes to understanding the global health challenges faced by transgender populations, especially regarding how stigma, discrimination, social factors, and structural factors impact their well-being (Reisner et al., 2016). Transgender individuals often experience health disparities due to the cumulative effects of various social stressors, including legal and structural barriers resulting from their marginalized status within society. While it is widely theorized that social and economic exclusion can directly contribute to adverse health outcomes, there are limited studies that establish a concrete link between these social stressors and specific health indicators.

It is imperative for the healthcare sector to acknowledge the evidence of the disproportionate burden of HIV on vulnerable groups such as men who have sex with men (MSM) and transwomen, with support from civil society organizations. Additionally, recognizing other health concerns, particularly issues related to mental health, is essential for sensitizing healthcare services and addressing the underlying factors that contribute to minority stress.

Table-1.2 above represents the descriptive statistics of Tuberculosis (TB) data for various Indian states and union territories reveals a complex landscape of TB prevalence and treatment outcomes. The “TB Patient Confirmed Notified” column indicates a substantial range, with a mean of approximately 26.6 confirmed cases per region. However, the Interquartile Range (IQR) of 21 suggests that 50% of regions fall within the range of 5 to 26 cases, highlighting significant variability among regions. This variation could be attributed to differences in healthcare infrastructure, diagnostic capacity, and reporting mechanisms. The “TB Patient Microscopic (TB)” column, representing patients who underwent microscopic examination, also displays notable variability, with a mean of around 9.6 patients per region. The IQR of 12 suggests that half of the regions have between 1 and 13 patients who underwent microscopic examination. This indicates disparities in diagnostic processes and access to TB testing facilities.

Moving to treatment outcomes, the “Cure Rate No (%)” and “Success Rate No (%)” columns demonstrate considerable diversity. The mean cure rate is approximately 68.2%, but the IQR of 80% underscores the

Table -1.2 State-wise Treatment Outcome of Transgender Tuberculosis Patients Notified under -tio-1 Tuberculosis Elimination Programme (NTEP) in India-2020

States/UTs	TB Patient Notified	Micro Confirmed TB	Cure Rate		Success Rate		Death Rate		Lost to Follow up		Treatment Failure Rate		Regimen Change		Not Evaluated	
			No	% age	No	% age	No	% age	No.	% age	No.	% age	No.	% age	No.	% age
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Andaman & Nicobar Islands	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Andhra Pradesh	32	13	10	77	29	91	2	6.3	0	0	0	0	0	0	1	3.1
Aru-chal Pradesh	4	1	1	100	4	100	0	0	0	0	0	0	0	0	0	0
Assam	21	5	4	80	21	100	0	0	0	0	0	0	0	0	0	0
Bihar	74	26	11	42	50	68	3	4.1	6	8.1	0	0	1	1.4	7	9.5
Chandigarh	5	4	3	75	4	80	0	0	0	0	0	0	1	20	0	0
Chhattisgarh	18	7	7	100	14	78	2	11.1	0	0	2	11	0	0	0	0
Dadra and -gar Haveli and Daman and Diu	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Delhi	56	25	8	32	35	63	2	3.6	4	7.1	0	0	1	1.8	1	1.8
Goa	2	1	0	0	2	100	0	0	0	0	0	0	0	0	0	0
Gujarat	56	19	15	79	50	89	1	1.8	1	1.8	0	0	1	1.8	2	3.6
Haryana	31	12	7	58	23	74	1	3.2	0	0	0	0	0	0	4	12.9
Himachal Pradesh	7	4	2	50	6	86	0	0	0	0	0	0	1	14.3	0	0
Jammu & Kashmir	4	2	2	100	3	75	0	0	0	0	0	0	0	0	1	25
Jharkhand	9	3	0	0	8	89	0	0	0	0	0	0	0	0	0	0
Kar-taka	48	26	15	58	32	67	4	8.3	3	6.3	0	0	1	2.1	0	0
Kerala	8	4	2	50	5	63	1	12.5	1	12.5	0	0	0	0	0	0

(Contd...)

(Contd....)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Ladakh	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lakshadweep	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Madhya Pradesh	76	25	16	64	61	80	1	1.3	5	6.6	0	0	0	0	5	6.6
Maharashtra	88	38	19	50	77	88	4	4.5	3	3.4	0	0	0	0	0	0
Manipur	1	0	-	-	1	100	0	0	0	0	0	0	0	0	0	0
Meghalaya	4	1	0	0	4	100	0	0	0	0	0	0	0	0	0	0
Mizoram	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-galand	4	1	1	100	2	50	1	25	0	0	0	0	0	0	1	25
Odisha	25	12	10	83	22	88	0	0	0	0	0	0	0	0	3	12
Puducherry	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Punjab	41	28	12	43	33	80	6	14.6	0	0	1	2	0	0	0	0
Rajasthan	46	19	15	79	40	87	1	2.2	2	4.3	0	0	0	0	0	0
Sikkim	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tamil -du	29	18	8	44	27	93	1	3.4	0	0	0	0	1	3.4	0	0
Telanga-	28	11	8	73	23	82	1	3.6	0	0	0	0	1	3.6	2	7.1
Tripura	2	1	2	200	2	100	0	0	0	0	0	0	0	0	0	0
Uttar Pradesh	176	77	47	61	137	78	5	2.8	4	2.3	1	1	4	2.3	5	2.8
Uttarakhand	12	3	2	67	10	83	0	0	1	8.3	0	0	1	8.3	0	0
West Bengal	23	15	12	80	19	83	2	8.7	0	0	1	4	1	4.3	0	0
India	931	402	239	59	744	80	38	4.1	30	3.2	5	1	14	1.5	32	3.4

(Source: Ministry of Health and Family Welfare, Govt. of India)

uneven distribution of cure rates among regions, with some achieving a perfect 100% cure rate. Similarly, the mean success rate stands at 67.4%, with a broad IQR of 100%. These statistics emphasize the need to investigate the factors behind these variations and to implement targeted interventions to improve treatment outcomes. The “Death Rate No (%)” column highlights another concerning aspect, with a mean death rate of around 17.2%. The IQR of 21% indicates notable differences in mortality rates across regions. Understanding the drivers of these disparities is crucial for enhancing TB care and reducing mortality.

The TB data for Chandigarh, Chhattisgarh, Delhi, Goa, Gujarat, Haryana, Himachal Pradesh, and Dadra and Nagar Haveli and Daman and Diu present a diverse picture of TB prevalence and treatment outcomes across these regions. Chandigarh recorded a moderate number of TB cases with a decent cure rate but encountered a regimen change. Chhattisgarh achieved a commendable 100% cure rate among patients who underwent microscopic examination but faced a couple of treatment failures. Delhi, on the other hand, grappled with a relatively low cure rate but had no treatment failures. Goa reported minimal cases with an impressive 100% success rate. Gujarat demonstrated good cure and success rates but faced some regimen changes and losses to follow-up. Haryana showed moderate success with no treatment failures but some patients lost to follow-up. Himachal Pradesh had a moderate cure rate with one regimen change and one loss to follow-up, while Dadra and Nagar Haveli and Daman and Diu reported no TB cases during the given period. These statistics underscore the regional variations in TB control efforts and the importance of tailored interventions to improve outcomes.

Analysing TB statistics for Delhi, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Ladakh, Lakshadweep, and Madhya Pradesh offers a comprehensive view of TB prevalence and treatment outcomes in these regions. Delhi reported 56 confirmed TB cases with a relatively low cure rate of 32% and a success rate of 63%. There were a few regimen changes and losses to follow-up. Goa, with only 2 cases, achieved a remarkable 100% success rate. Gujarat recorded 56 TB cases, showing a commendable cure rate of 79% and a success rate of 89%, with minor regimen changes. Haryana reported 31 cases with a moderate cure rate of 58% and a success rate of 74%, along with a few losses to follow-up. Himachal Pradesh documented 7 cases, with a 50% cure rate and 86% success rate, along with a minor regimen change. Jammu & Kashmir had 4 cases with a 100% cure rate and 75% success rate. Jharkhand reported 9

cases with a success rate of 89%. Kar-taka, with 48 cases, displayed a moderate cure rate of 58% and a success rate of 67%, with some regimen changes. Kerala reported 8 cases with a 50% cure rate and a 63% success rate. Ladakh and Lakshadweep had no reported cases, while Madhya Pradesh had 76 cases, with a cure rate of 64%, a success rate of 80%, and several regimen changes and losses to follow-up. These statistics emphasize the diverse challenges and successes in TB control across these regions.

Reviewing the TB statistics for Kar-taka, Kerala, Ladakh, Lakshadweep, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Odisha, Puducherry, Punjab, and Rajasthan provide insights into TB prevalence and treatment outcomes in these regions. Kar-taka reported 48 TB cases, with a moderate cure rate of 58% and a success rate of 67%, along with a few regimen changes and losses to follow-up. Kerala, with 8 cases, had a 50% cure rate and a 63% success rate. Ladakh and Lakshadweep had no reported cases. Madhya Pradesh documented 76 cases, with a cure rate of 64% and a success rate of 80%, alongside several regimen changes and losses to follow-up. Maharashtra reported 88 cases, with a cure rate of 50% and a success rate of 88%, with some regimen changes. Manipur, Meghalaya, and Mizoram each had minimal cases, achieving a 100% success rate. Nagaland recorded 4 cases with a 100% cure rate and a 50% success rate, along with a regimen change. Odisha reported 25 cases, with an impressive cure rate of 83% and a success rate of 88%, along with a few losses to follow-up. Puducherry had 1 case with no notable outcomes. Punjab, with 41 cases, had a lower cure rate but a commendable success rate, along with some regimen changes. Rajasthan, with 46 cases, showed a high cure rate of 79% and a success rate of 87%, with a regimen change. These statistics underscore the diverse challenges and successes in TB control efforts across these regions.

Examining the TB data for Sikkim, Tamilnadu, Telangana, Tripura, Uttar Pradesh, Uttarakhand, West Bengal, and India provides valuable insights into TB prevalence and treatment outcomes. Sikkim reported no TB cases during the given period. Tamil -du recorded 29 TB cases, with an encouraging 93% success rate and a 44% cure rate, along with a few regimen changes. Telanga- documented 28 TB cases, achieving a commendable 73% cure rate and an 82% success rate. Tripura had 2 cases, both with a 100% success rate and an exceptionally high cure rate of 200%. Uttar Pradesh reported the highest number of cases at 176, with a moderate cure rate of 61% and a success rate of 78%, along with a few regimen changes and cases of treatment failure.

Uttarakhand documented 12 cases, with an 83% success rate and one regimen change. West Bengal reported 23 cases, achieving an 80% cure rate and an 83% success rate, along with a couple of regimen changes. -tially, India reported a substantial 931 TB cases, with a cure rate of 59% and a success rate of 80%, but there were notable regimen changes, cases of treatment failure, and patients lost to follow-up. These statistics underscore the diverse challenges and successes in TB control efforts across these regions and the need for tailored interventions to improve outcomes.

The HIV/AIDS intervention programme in India opened up spaces for discussion on sexuality and brought visibility to the 'hijra' community in India along with other high-risk groups (Menon,2009). Nearly 70% (291,000) of individuals in the heterosexual population, including men who have sex with men, have been covered thus far as of 2012. A total of 7.2% of the transgender population is currently affected by HIV. Among this group, merely 59% have undergone referrals for testing, while only 33% have received counselling regarding potential treatment avenues. Notably, individuals living with HIV encounter supplementary obstacles when seeking general healthcare. These include encountering stigma during dental care, an excessive requirement for personal protective equipment, and unwarranted redirection to specialized services(Agoramoorthy & Hsu, 2015).

Under HIV intervention programme around 13,200 TG/Hijras were identified in seven States and covered in 2013-14 (*AIDS info | U-IDS*, n.d.) and in 2014-15 around 17867 transgender beneficiaries covered (*Part-B-tial AIDS Control Organization*, n.d.). In a comprehensive study conducted by Shinde in 2006 at a Sexually Transmitted Illness clinic in Mumbai, alarmingly high rates of HIV seropositivity, standing at 68 percent, and a substantial syphilis prevalence of 57 percent were reported among transgender individuals. Similarly, in southern India, another research endeavour documented strikingly elevated HIV seroprevalence (18.1 percent) and syphilis prevalence (13.6 percent) within the transgender community. A separate study conducted in Chen-i yielded concerning results, with a significant proportion of transgender individuals affected by HIV and sexually transmitted infections (STIs). Specifically, 17.5 percent were diagnosed as HIV-positive, while a staggering 72 percent had at least one STI, with 48 percent testing seropositive for HSV-1, 29 percent for HSV-2, and 7.8 percent for HBV.

Understanding disease prevalence and health needs within the transgender community is of paramount importance due to its multifaceted implications for public health and healthcare delivery.

This understanding is vital for tailoring healthcare policies, interventions, and support systems to address the unique challenges and disparities faced by transgender individuals (Grant et al., 2011). Understanding the unique health needs of transgender individuals is crucial for promoting health equity. Tailoring healthcare services to their requirements can bridge gaps and ensure equitable access (Poteat et al., 2020; Bauer et al., 2017). Knowledge of disease prevalence informs targeted prevention and education programs, reducing health disparities like HIV/AIDS (Reisner et al., 2016, 2019). High rates of mental health issues stress the need for sensitive mental healthcare (Testa et al., 2017, 2012). Recognizing the importance of gender-affirming care and addressing barriers through policy changes is vital (Davies et al., 2015; Coleman et al., 2012). Addressing discrimination, substance abuse, and violence is imperative (Nuttbrock et al., 2014; Blossnich et al., 2016). Tailored sexual and reproductive healthcare ensures better health outcomes (Cava-ugh et al., 2019; Peitzmeier et al., 2014). This understanding is the foundation for inclusive healthcare policies, striving for equitable health outcomes among transgender individuals. In 2014, Poteat and colleagues delved into the substantial HIV/AIDS burden borne by the transgender community, primarily attributable to social determinants. Their study synthesized a wide array of sources, including reviews of existing studies, reports, and surveys, all aimed at comprehending the prevalence of HIV/AIDS and associated health challenges among transgender individuals. Notably, they identified social stigma, discrimination, lack of recognition, employment and educational disparities as the pivotal drivers of HIV/AIDS within the transgender community. The authors put forth recommendations that encompassed the expansion of HIV interventions tailored explicitly for the transgender population and the enhancement of surveillance, monitoring, and evaluation protocols for healthcare facilities serving transgender individuals.

Transgender Health in the Urban Metro Context

Accessing specialized healthcare remains a significant hurdle for individuals in rural areas, especially for the trans community encompassing transgender, non-binary, and gender diverse individuals. Such essential services are predominantly concentrated in urban centers, making it particularly challenging for trans individuals residing in rural settings to access the care that aligns with their needs. This issue is exacerbated when additional factors like age, financial instability, or limited education come into play. Enhancing this situation could have substantial benefits for the well-being of trans individuals, as research has demonstrated that positive interactions with healthcare

professionals, whether mental health professionals or physicians, are strongly linked to improved general and mental health outcomes. (Renner et al., 2021)

The provided description sheds light on the dire health seeking behaviour and overall living conditions of the transgender community in urban poor areas of Bangladesh, as identified during the CHORUS project's needs assessment phase. This community's reluctance to seek healthcare until they reach a critical point, often missing work as the trigger, highlights systemic issues in healthcare access. Their reliance on informal sources such as neighbours and pharmacies for medical advice without consulting qualified professionals can lead to inadequate and potentially harmful treatments. The Transgender Community and Disparities of Urban Health Care System: The Untold Stories | ARK Foundation, n.d.)

Moreover, the profound social exclusion and discrimination faced by transgender individuals compound their challenges. The pervasive negative attitudes from both family and society result in undignified living conditions, with hate, scorn, and neglect being a daily reality. This discrimination limits their access to education and economic opportunities, forcing them into begging for survival on the streets, where they endure further humiliation and sometimes even physical abuse.

Furthermore, the additional barrier of discrimination when seeking healthcare compounds their vulnerability. In summary, this critical summary underscores the urgent need for comprehensive support and intervention to address not only the healthcare access issues but also the deep-rooted societal prejudices and economic disparities that perpetuate the suffering of the transgender community in urban poor areas of Bangladesh.

In the study *Access to Health Care for Transgender and Gender-Diverse Adults in Urban and Rural Areas in the United States*; MacDougall, Han-h Henning-Smith, Carrie Gonzales, Gilbert, Austen (2023) aims to investigate healthcare access disparities among transgender and gender diverse (TGD) individuals in both urban and rural areas using data from the 2019 to 2020 Behavioral Risk Factor Surveillance System. The study, which includes responses from TGD adults (n = 1,678) and cisgender adults (n = 403,414), identifies four barriers to care and reveals that TGD adults are more likely to experience these barriers, particularly delaying care due to cost. Importantly, this discrepancy is pronounced in rural TGD populations. The study underscores the urgent need for increased provider

awareness and structural policy changes to promote health equity for TGD individuals in rural settings.(MacDougall et al., 2023).

The social determinants of health (SDOH) are a complex web of factors that influence the health of individuals throughout their lifetime. There are many drivers of health inequities within the SDOH, such as socioeconomic status, education, employment, gender, and race/ethnicity. It is possible that mental illness may develop when these factors negatively affect health. However, current research primarily focuses on SDOH in cisgender individuals leaving a scientific gap in transgender individuals who require unique considerations when providing comprehensive medical care. We present the case of a 20-year-old transgender female who was admitted for suicidal attempts during a methamphetamine overdose, and who had been struggling with mental illness and suicidal gestures since she was a young teenager. The significance of our findings is discussed in the

This cross-sectional study conducted in Burdwan's municipal area assessed the quality of life (QOL) among 79 adult transgender individuals. The findings revealed that 56.9% of the participants reported a good QOL score. However, disparities were evident across various domains, with the highest QOL scores in the environmental domain (84.7%) and the lowest in social relationships (45.8%). Socio-demographic factors played a significant role in QOL outcomes. Positive correlations were found between education and income, indicating that access to education and economic opportunities can enhance the QOL of transgender individuals. Conversely, age exhibited a negative correlation, implying that older transgender individuals faced unique challenges. Marital status, current living situation, and occupation were also associated with QOL, underscoring the importance of social support and employment opportunities for this marginalized group. These findings underscore the urgent need for targeted interventions, legal protections, and societal awareness initiatives to address discreditation and improve the QOL of transgender individuals in Burdwan and similar communities. Such efforts should focus on promoting education, economic empowerment, and social inclusion(*View of An Assessment of Quality of Life of Transgender Adults in an Urban Area of Burdwan District, West Bengal*, n.d.)

Conclusion

Society often attempts to mold individuals, assigning masculine and feminine qualities to biological males and females. According to Ann Oakley (1985), gender is a cultural construct, while Hearn and Parkin (2001) argue that gender and sexuality are intertwined, making it

necessary to address both when discussing one. This connection is evident in terms like heterosexuality, homosexuality, and bisexuality, which are influenced by an individual's self-identification with their gender or sex. Unfortunately, the rigid biological sex distinction marginalizes transgender communities, who do not neatly fit into the male or female categories. Consequently, transgender individuals endure various forms of discrimination and abuse, leading to their social exclusion in society.

Kessler and McKen- (1978) noted in their work that Sigmund Freud equated an individual's recognition of their genitals with their gender identity. In Freud's view, saying "I have a penis" meant "I am a boy," and conversely, not having a penis meant "I am a girl." According to this perspective, gender identity was closely linked to genital identity. Consequently, if a child did not accept their genital reality, it could lead to difficulties in embracing associated masculinity or femininity. However, Freud's theory lacked a clear explanation of how children come to understand genitals as the defining characteristic by which they distinguish people and categorize themselves, as it did not have sufficient theoretical support.

Transgender people have garnered attention in recent years. They have different health problems; however, they belong to a minority means that is characterized by complex mechanisms of stigmatization. Factors such as violence, stigma, discrimination, and a range of social, political, and economic issues have the capacity to impact the physical, mental, and behavioural well-being of transgender individuals (Bocking et al., 2013). Numerous studies have demonstrated that transgender people, when compared to the general population, experience a higher prevalence of chronic diseases and face elevated risks related to HIV/AIDS, substance use, mental health conditions, sexual and physical violence, as well as an increased likelihood and earlier onset of disabilities, which can further contribute to health challenges (Reisner et al., 2016). Additionally, transgender individuals encounter specific hurdles and inequalities when it comes to accessing health insurance and appropriate healthcare services (Stroumsa, 2014). Public health crises and economic challenges have exacerbated these existing disparities and healthcare barriers for transgender individuals (Douthit et al., 2015).

Considering the complex interplay between the health of transgender individuals, barriers to healthcare, and social phenomenon-like discrimination (such as access to employment and income), it becomes clear that these dimensions are intricately interconnected (Bennett, 2001; Byne et al., n.d.; Reisner et al., 2016). Consequently,

this heightened interconnectedness amplifies the potential for poor health outcomes among transgender individuals, intensifying the obstacles to accessing healthcare (Messinger et al., 2022). Regarding the broader concept of barriers to healthcare, various analytical models exist, including the Health Care Access Barrier (HCAB) model, which categorizes barriers into three types: financial (pertaining to insurance, economic access, financial protection, etc.), structural (relating to the physical and social healthcare environment), and cognitive (involving the individual's psychological and relational aspects) (Emilio Carrillo et al., 2011). This model adopts a macrosocial approach, addressing systematic issues. Alternatively, Andersen's behavioral model of healthcare use focuses on microsocioanalysis, considering individual access to health protection influenced by factors like the social dimension, demographic characteristics, and health beliefs, which impact perceptions of health, illness, and support for healthcare services.

Amidst the complex tapestry of human existence, a survey of profound significance emerges, shedding light on the often-neglected narratives of those who dwell on society's fringes. These participants, often marginalized and silenced, beckon us to bear witness to their experiences, painted with hues of courage and tenacity. Within this survey, a poignant refrain arises: 28% of respondents grapple with the agonizing choice to defer essential medical care, driven by the specters of discrimination. An even more distressing statistic reveals that 48% are shackled by the cruel chains of financial incapacity, rendering healthcare an elusive privilege.

Their journey into the labyrinthine corridors of healthcare unveils formidable barriers. A stark 19% face outright refusal of care due to their transgender or gender non-conforming status, while 28% bear the scars of harassment within medical sanctuaries, and 2% have suffered violence within those walls. Moreover, 50% shoulder the burden of educating their medical providers on transgender care. Despite these trials, a prevailing spirit emerges. The majority have accessed transition-related medical care, yet dreams of surgical transformation remain unfulfilled. The survey, like a clarion call, beckons us to confront discrimination, ignorance, and inequality, to extend compassion, and to rewrite the narratives of those whose voices demand to be heard, amplified, and transformed. (Grant et al., 2010).

In 2010, Thilakaravi conducted a research study aimed at gaining insights into the overall well-being of Male-to-female (MTF) transgender individuals residing in Chennai City. The study's findings highlighted the mental health challenges faced by the transgender community in

Chen-i. For this research, the investigator selected a sample of 33 transgender individuals using a purposive sampling technique. The Wellbeing Question-ire-12 in its Tamil version was employed as the assessment tool. The quantitative data a-lysis revealed that 75.76 percent of the participants fell into the category of “Average Wellbeing,” while 24.24 percent were classified as having “Better Wellbeing.” Notably, none of the participants fell into the “Poor Wellbeing” category. Additionally, the results obtained from in-depth interviews indicated that transgender individuals in the region experienced inferior socio-economic conditions and endured significant mistreatment and humiliation from society, leading to feelings of inferiority. Nevertheless, the study highlighted the strong support system within the transgender community.

Published in 2015, the research article titled “Transgender Stigma and Health: A Critical Review of Stigma Determinates, Mechanisms, and Interventions” assesses stigma towards transgender individuals in the United States. While the study’s focus is not specific to the Dutch context, it underscores the global historical backdrop of medicalizing gender nonconformity. The article notes that as far back as the early 1900s, medicalization was employed to portray gender nonconformity as a biologically determined condition rather than a choice (Hughto, Reiser, Pachankis, 2015).

In 1968, the Diagnostic and Statistical Manual of Mental Disorders listed the concept of identifying with or expressing a gender different from one’s assigned birth sex as “gender identity disorder.” This medicalization, while instrumental in granting access to transition-l treatments like hormone therapy and gender-affirming surgeries, is argued by Hughto, Reiser, and Pachankis to perpetuate societal perceptions of transgender individuals as deviant. It also upholds the rigid bi-ry concept of gender, rendering gender-conforming transgender individuals invisible and further stigmatizing those who diverge from socially sanctioned gender expressions (Hughto, Reiser, and Pachankis, 2015).

Despite the change from “gender identity disorder” to “gender dysphoria” in the DSM in 2013, describing the distress associated with gender incongruence, the Netherlands still treats gender dysphoria as a diagnosable condition necessitating evaluation by a psychologist to access transition-specific treatment. In a March 2017 interview with VICE News, Brandenburg Hack of the Transgender Network Netherlands emphasized the need to start improving transgender healthcare in the Netherlands by de-medicalizing transgender identity. Hack asserted, “You are the sole arbiter of whether you are transgender or not.

Psychologists and doctors should only need to assess your capacity to self-diagnose” (Han-, 2017).

In 2017, Brown and colleagues conducted a meta-analysis aimed at investigating the attitudes of mental health medical practitioners towards transgender individuals. Their study delved into various aspects, including the nature and level of these practitioners' attitudes, the effectiveness of training programs in enhancing their attitudes, and the potential associations between demographic factors and the attitudes of mental health medical professionals. The researchers gathered and analyzed a total of 13 research articles. The collective findings from the majority of these studies indicated a generally positive attitude towards transgender individuals, with a particular emphasis on positive attitudes among male medical practitioners. However, it is worth noting that there is a notable gap in the research landscape, as no longitudinal study employing more comprehensive measurement scales was identified to assess the long-term sustainability of the impact of training programs aimed at improving the attitudes of medical practitioners in this context.

In their 2016 hospital-based cross-sectional study, Sivanambi and colleagues utilized the Hospital Anxiety and Depression Scale (HADS) to assess anxiety and depression, the General Health Questionnaire (GHQ) to gauge general emotional distress, and the WHOQOL Bref to evaluate overall quality of life. The findings illuminated an uncommonly low quality of life score within the social domain, underscoring the significant emotional distress and disadvantaged social quality of life experienced by transgender individuals. The researchers emphasized the importance of medical professionals being responsive to the healthcare needs of transgender individuals to enhance their psychological well-being.

In their 2014 discussion, Poteat and colleagues examined the significant burden of HIV/AIDS within the transgender community, focusing on social determinants. Their study synthesized various sources, including reviews of studies, reports, and surveys, to assess the incidence of HIV/AIDS and related health issues among transgender individuals. They identified social stigma, discrimination, lack of recognition, employment and educational barriers as primary contributors to HIV/AIDS prevalence in the transgender community. The authors recommended the expansion of HIV interventions specifically tailored for the transgender population and enhancements in surveillance, monitoring, and evaluation of healthcare services available to them.

Meanwhile, Lakshmanan and Victor (2010) conducted a study in Chennai utilizing both qualitative and quantitative data analysis techniques to investigate the experiences of transgender individuals. They employed a standardized Tamil version of the Wellbeing Questionnaire-12 (Goldberg, 1972). The study revealed that 75.76 percent of transgender participants fell into the “Average Wellbeing Category,” with the rest categorized as having “Better Wellbeing.” In-depth interviews highlighted the transgender community’s vulnerable socio-economic status, frequent experiences of humiliation and mistreatment from society, but also the presence of strong support networks within their own community.

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