



Quality of Life among Transgender Individuals in Manipur: A Comparative Study of Trans Men and Trans Women

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ABSTRACT

Introduction: The quality of life for transgender individuals may be negatively impacted by stigma, discrimination, a lack of social support, and difficulties accessing healthcare, education, job, and other resources. Studies research comparing the quality of life of trans men and trans women in Manipur remains limited.

Objectives: To assess Quality of Life of transgender people in Manipur and to compare the quality of life of trans males and trans women.

Methods: 156 transgender people in Manipur—78 transmen and 78 transwomen—were chosen using stratified random sampling for a cross-sectional comparative study. Data were collected using a semi-structured socio-demographic schedule and the WHOQOL-BREF to assessing physical, psychological, social, and environmental domains.

Results: Trans men had higher mean quality-of-life scores than trans women across all four domains and overall quality of life; however, none of the differences were statistically significant ($p > 0.05$). Therefore, the results imply that transmen and transwomen in Manipur have similar quality-of-life experiences.

Conclusion: The findings highlight the need for gender-responsive and inclusive treatments to assist transgender people's overall welfare and quality of life, as transmen and transwomen in Manipur enjoy similar quality of life.

Keywords: Transgender; Quality of life; Trans men; Trans women; WHOQOL-BREF.

1. INTRODUCTION

The World Health Organization (WHO) defines "gender identity" as an individual's intrinsic, strongly felt internal experience of gender, which may or may not match their physiology or assigned sex at birth. Additionally, "transgender" is an umbrella term for individuals whose gender identity and/or gender expression deviate from the expectations of the sex assigned at birth. The Transgender Persons (Protection of rights) Act, 2019 states a transgender person as any person whose expressed gender does not match with the gender assigned to that person at birth (Naveen et al., 2021). Transwoman and transman are two broad categories for transgender people. A person who has typically transitioned from their initial male gender to live permanently in a female gender role is referred to as a transwoman. Conversely, a person who is migrating or has already migrated from their initial female gender role to live permanently in a male gender role is referred to as a transman (Bochicchio, L. 2019).

World Health Organization (WHO) defines Quality of Life as an individual's insight of their position in life in the context of the value and culture systems in which they live and in relation to their goals, expectations, standards and concerns. (Skevington, 1999). Previous studies have shown that factors such as body image, family support, employment or education, and gender affirmation surgery (GAS) can improve the quality of life for transgender individuals. Additionally, the same study reveals that trans men score higher on the physical functioning subscale of quality of life than trans women (Silva et al., 2021).

Many transgender people suffer from extreme distress, sometimes referred to as gender dysphoria, as a result of the mismatch between gender identification and sex assigned at birth. This condition tends to improve after transitioning to the experiencing gender. (Coleman et al., 2012). As the transgender individuals navigate their identity, acceptance, and social membership, they frequently encounter significant psychological and social difficulties. Among these, mental health, wellbeing, and quality of life can be greatly impacted by gender dysphoria, which is the distress that may accompany incongruence between given sex and perceived gender. In April 2014, the Indian Supreme Court acknowledged transgender individuals as a third gender in addition to male and female. They used to have to write "male" or "female" in opposition to their gender. Discrimination, unemployment, a lack of educational resources, a lack of social support, homelessness, and a lack of medical facilities are the main issues transgender persons encounter. This community has reported a number of mental health problems, including stress, depression, social stigma, and a lack of social support, all of which have an impact on their psychological well-being and quality of life (Pinki et al., 2020).

Numerous research has produced conflicting results about the Quality-of-Life differences between trans men and trans women. While some studies have found no significant differences between these groups, others have discovered considerable disparities. For instance, Parola et al. (2010), reported that trans women experience better quality of life in various mental and physical domains compared to trans men. Conversely, research by Motmans et al., 2012 found that trans women had lower quality of life scores than trans men. Adding to the complexity, Jellestad et al. (2018) found no significant differences in quality of life between trans men and trans women, although both groups reported lower quality of life levels compared to the general population.

In Manipur, trans men are referred to as Nupa Saabi and trans women as Nupi Maanbi. Transwomen were formerly referred to as Nupi Saabi; later, the word was altered to Nupi Maanbi. Although these identities have existed for a very long time, the word "Nupi Maanbi" first emerged in the twenty-first century. Transgender persons continue to face difficulties and are not yet acknowledged as members of society, despite the Supreme Court of India's decision to recognize transgender people as a third gender. According to the oral sources, leading a gender non-compatible existence in public had become a very controversial topic in Manipur by the second part of the 20th century. In the past, gender nonconforming individuals were viewed as personal defects and were no longer a part of society's overall functioning. With Shumang Leela, the transgender community now has a public space where they can freely express their identity without fear of rejection/judgement. Shumang Leela essentially means courtyard play because Shumang means courtyard and Leela means play. It is a conventional kind of theatre that is set up in an open area. Here, the transwomen's perception of woman is a defining characteristic. However, discrimination and stigmatization still persist, and acceptance of art is limited to its artistic form (Yumkhaibam 2020).

AIM: The aim of the study is to assess and compare the Quality of Life between trans men and trans women.

OBJECTIVES:

1. To assess the level of Quality of life among transgender individuals.
2. To compare Quality of life among trans men and trans women.

NULL HYPOTHESES:

1. There is no significant difference in Quality of life between Trans Men and Trans Women of Manipur.

REVIEW OF LITERATURE

Prior studies have repeatedly shown that transgender people face difficulties with their quality of life (QoL). Transgender people generally reported lower quality of life (QoL) than the general population, especially in mental health-related domains, according to a systematic review and meta-analysis, while some data supported improvement after receiving gender-affirming treatment. The study also highlighted the need for further studies with transgender populations that are well-defined and suitable comparisons between stages of gender-affirming care (Nobili et al., 2018)

Psychological and social aspects have also been found to be significant drivers of transgender people's quality of life. Higher self-esteem was favourably correlated with mental QoL, but psychological distress and stressful life situations were adversely correlated, according to Garcia Nuñez et al. (2024). In a similar vein, Namita et al. (2023) discovered that improved QoL across many domains was linked to family support, perceived social support, older age, income, and the absence of suicide attempts in a study carried out in North Kerala. Although certain social and individual circumstances may affect each group differently, research comparing trans men and trans women has consistently shown no substantial overall variations in QoL. While stable relationships, work, physical exercise, and gender-affirming physical changes were linked to higher QoL domain scores, Silva et al. (2021) showed no significant difference in QoL between trans women and trans males. In a similar vein, Lad et al. (2024) found that transmasculine and transfeminine people had similar QoL levels despite variations in the social and psychological aspects of wellbeing. Although trans women had somewhat higher scores in self-rated QoL and physical and psychological well-being, Lima et al. (2024) also observed no statistically significant differences in QoL between trans men and trans women.

Additionally, data from India has shown that socioeconomic and demographic factors affect quality of life. According to Mondal et al. (2026), over half of transgender participants had good overall quality of life, with

the social interaction category having the lowest percentage of good grades and the environmental domain having the highest. QoL was positively correlated with education and income, negatively correlated with age, and strongly correlated with living environment, occupation, and marital status.

Overall, research suggests that transgender people may have lower quality of life, especially in the social and psychological spheres, and that social support, socioeconomic circumstances, psychological health, and access to care that is gender affirming seem to be significant factors. There is still little evidence, and results may differ depending on social and cultural environment, even though a number of studies comparing trans males and trans women found no appreciable differences in general quality of life. Research on the quality of life (QoL) of trans men and women in Manipur is particularly lacking. The current study, which evaluates QoL and compares its dimensions between trans males and trans women in Manipur, is justified by this discrepancy.

RATIONALE OF THE STUDY

Transgender individuals in Imphal, face significant challenges related to social stigma, discrimination & economic marginalization, which can adversely impact their quality of life. Understanding the various types of transgender identities and their impacts on quality of life involves exploring a range of experiences and challenges faced by individuals. After Covid-19 pandemic and the ethnic violence conflict between two communities, there has been sudden decline in earnings of the transgenders which again affect their quality of life. The quality of life among trans men and trans women can differ due to a variety of factors, including societal attitudes, healthcare access, and individual experiences. There is a scarcity of research focusing on how quality of life differed among transmen and transwomen in Imphal. This study addresses this gap by investigating the relationship between transgender types & their quality of life. The study outcome can have significant benefits in the society which involves improved healthcare access, enhancing mental health support, informing public policy, strengthening community support, empowering transgender individuals, ultimately enhancing the well-being of transgender individuals and society as a whole.

METHODOLOGY

Research Design: This study adopted a cross-sectional descriptive, comparative research design

Study Settings: This study was conducted in four transgender community-based organizations (CBOs) in Manipur: AMANA, ATMA, Transgender Health and Wellness Centre, and ETA. These organizations serve the transgender community in the Imphal Valley and were selected due to their accessibility and active engagement with transgender individuals, facilitating participant recruitment despite the challenges of reaching marginalized populations.

Participants/Sample: The target population consists of 2,555 in total, comprising trans men and trans women registered with four transgender associations in Imphal, Manipur: AMANA, ATMA, the Transgender Health and Wellness Centre, and ETA. Updated membership lists from these organizations enable accurate population distribution management, with duplicate entries across NGOs identified and removed for accuracy.

Inclusion criteria

- Transgenders who self-identify themselves as trans men and trans women.
- Transgenders who are registered members of any of the four transgender associations based in Imphal, Manipur: The All Manipur Nupi Manbi Association (AMANA), the All-Manipur Transmen Association (ATMA), the Transgender Health and Wellness Centre, and Empowering Trans Ability (ETA).
- Transgenders who are 18 years and above.
- Transgender individuals who are willing to provide informed consent.
- Transgenders who are able to read or understand English/Manipuri.

Exclusion criteria

- Transgenders who identify themselves outside the categories of trans man or trans woman
- Transgenders who are not registered with any of the four identified NGOs
- Transgenders who have severe mental health or medical conditions.
- Transgenders who are below 18 years
- Transgenders who are not willing to participate or not able to give informed consent.

Sample size:

The "Sample Size Determination for Finite Populations" formula was used which estimates the required sample size (n) in survey research to ensure accurate results with high confidence and minimal margin of error, particularly for large populations from which participants are randomly selected.

The sample size of the present study was determined using the formula:

$$n = \frac{z^2 \times p(1-p)/e^2}{1 + (z^2 \times p(1-p)/e^2N)}$$

Where ,

P = Sample proportion (if unknown, it is usually assumed to be 0.5 for maximum variability)

z = z-score (associated with the confidence level you want, e.g., 1.96 for 95% confidence)

e = Margin of error (expressed as a decimal, e.g., 0.05 for 5% margin of error)

N = Total Population size

n = Sample size needed

Assumption:

z = 95% confidential limit = 1.96

e = Margin of error = 8% = 0.08

p = Sample proportion = 0.5

N = 2555 (As per record available at transgender communities)

- By formula, we have,

$$\begin{aligned}
 n &= \frac{z^2 \times p(1-p)/e^2}{1 + (z^2 \times p(1-p)/e^2 N)} \\
 &= \frac{1.96^2 \times 0.5 \times 0.5 / 0.0064}{1 + (1.96^2 \times 0.5 \times 0.5) / 0.0064 \times 2555} \\
 &= \frac{0.9604 / 0.0064}{1 + (0.9604 / 0.0064 \times 2555)} \\
 &= \frac{150.06}{1 + (0.9604 / 16.35)} \\
 &= \frac{150.06}{1.058} \\
 &= 142 \\
 &= 10\% \text{ contingency for non-response or incomplete data i.e., } 14 \\
 &= 142 + 14 = 156 \\
 n &= 156
 \end{aligned}$$

After calculating the sample size using the formula for 'Sample Size Determination for Finite Populations,' the estimated sample size for the present study was determined to be 156 transgender individuals from Manipur.

Tools used:

1. **Semi structured schedule:** It was used to collect the socio demographic details of the participants in the study. The participants will be asked to provide details of their names, age, gender, educational qualification, type of family, religion, marital status, place of residence, occupation, monthly income etc.
2. **The World Health Organization Quality of Life (WHOQOL)-BREF:** It is a 26-item version of the WHOQOL-100 assessment developed by the World Health Organisation. It evaluates across four domains: physical health, psychological health, social relationships and environment. Its psychometric properties were analysed using cross-sectional data obtained from a survey of adults carried out in 23 countries. Analyses of internal consistency, item-total correlations, discriminant validity and construct validity through confirmatory factor analysis, indicate that the WHOQOL-BREF has good to excellent psychometric properties of reliability and performs well in preliminary tests of validity. These results indicate that overall, the WHOQOL-BREF is a sound, cross-culturally valid assessment of Quality of life. (Skevington et.al 2004)

Sampling procedure:

The study utilized a stratified random sampling design, a probability-based sampling method, due to the heterogeneous nature of the population concerning gender identity. This approach supports both population-level assessment and subgroup comparisons.

The population was divided into two mutually exclusive strata based on gender identity: Transmen and Transwomen. Each participant was categorized into one stratum according to their gender identity as self-reported.

Non-Proportionate allocation: In non-proportionate allocation, the sample sizes for each stratum can be chosen independently of their population sizes. This is useful when comparisons between groups require

similar sample sizes.

Stratum	Population	Sample
Transwomen	1568	78
Transmen	987	78
Total	2555	156

Participants were randomly selected from each stratum of a divided population to ensure equal chances of selection. A lottery method was employed, where each individual received a unique identification number that was written on slips of paper, folded, and placed in a container. Slips were drawn to select participants, and additional numbers were drawn in case of non-response to maintain the sample size.

Data collection methods: Prior to the study, necessary permissions were obtained, and participants were well-informed about its nature. After explaining important details and assuring confidentiality, informed consent was secured. The researcher then conducted interviews using a semi-structured proforma to collect socio-demographic data and assess quality of life among transgender individuals using the WHOQOL-BREF scale.

Data Analysis

The data were sorted, coded, and entered into the Statistical Package for the Social Sciences (SPSS) for analysis. Descriptive analysis like mean, SD, frequencies, percentages, charts, graphs etc and independent samples t-test for inferential analysis were employed.

RESULTS AND INTERPRETATIONS

The present study was conducted among 156 transgender individuals (including trans men and trans women) aged 18 and older. Participants were recruited from a registered population of 2,555 transgender individuals maintained by four NGOs. The study's results and observations are presented in the following sections:

Section I: Analysis of socio-demographic variables based on transgender identity

Section II: To assess the level of Quality of Life among transgender individuals.

Section III: To compare Quality of Life among trans men and trans women of Manipur.

Section I

Analysis of socio-demographic variables based on transgender identity

This section presents the distribution of socio-demographic characteristics among study participants, stratified by transgender identity (trans men and trans women). Variables such as age, place of residence, family type, educational level, employment status, marital status, and ongoing medical or gender-affirming treatment were examined to determine whether there were significant differences between trans men and trans women. The results are shown in Table 1

Table 1 Analysis of Socio-Demographic Variables Based on transgender Identity

Variables	Transmen n (%)	Transwomen n (%)	Total n (%)	χ^2	df	p- value	Effect Size
Age Group							
Youth (18–24) yrs	34 (44)	29 (37)	63 (40)	2.047	2	0.359	0.085
Young Adult (25–35) yrs	36 (46)	35 (45)	71 (46)				
Middle-aged Adult (36–59) yrs	8 (10)	14 (18)	22 (14)				
Total	78 (100)	78 (100)	156 (100)				
Type of Residence							
Rural	28 (40)	16 (21)	44 (28)	4.558	1	0.033*	0.171#
Urban	50 (64)	62 (79)	112 (72)				
Total	78 (100)	78 (100)	156 (100)				
Type of Family							
Joint Family	54 (69)	49 (63)	103 (66)	0.714	1	0.398	0.068
Nuclear Family	24 (31)	29 (37)	53 (34)				
Total	78 (100)	78 (100)	156 (100)				
Education Level							
No Formal Education	11 (14)	16 (20.5)	27 (17.3)	1.934	3	0.586	0.061
Primary	23 (30)	17 (21.8)	40 (25.6)				
Secondary	23 (30)	25 (32.1)	48 (30.8)				
Higher Secondary &	21 (26)	20 (25.6)	41 (26.3)				

Above							
Total	78 (100)	78 (100)	156 (100)				
Employment Status							
Unemployed	31 (40)	29 (37)	60 (39)	6.523	2	0.038*	0.204#
Private Employed	34 (43)	23 (30)	57 (36)				
Self-employed	13 (17)	26 (33)	39 (25)				
Total	78 (100)	78 (100)	156 (100)				
Marital Status							
Living with Partner	13 (17)	12 (15)	25 (16)	0.231	2	0.891	0.038
Separated	10 (13)	12 (15)	22 (14)				
Unmarried	55 (70)	54 (70)	109 (70)				
Total	78 (100)	78 (100)	156 (100)				
Any Ongoing Medical/Gender Affirming Treatment							
No	46 (59)	63 (81)	109 (70)	8.800	1	0.003**	0.238#
Yes	32 (41)	15 (19)	47 (30)				
Total	78 (100)	78 (100)	156 (100)				

Parentheses given in brackets are percentages; P-value ≥ 0.05 – Insignificant; * Significant at 0.05 level of significance; #Small effect

Table 1: The study analysed six socio-demographic characteristics of 156 transgender individuals, equally divided between trans men and trans women aged 18 to 59. Age distribution revealed no significant differences between the genders. Most participants lived in urban areas (71.8%), with a higher percentage of trans women residing there. Family structures showed no significant differences, with two-thirds living in joint families. In terms of education, most had completed secondary education, with a slight difference in no formal education between genders, which was not significant. Employment status differed significantly; trans men were more commonly in private employment, while trans women were more often self-employed. Most participants were unmarried, and regarding gender-affirming treatment, a greater proportion of trans men reported ongoing treatment compared to trans women. Statistical significance was found in various aspects, though effect sizes were generally small.

Section II To assess the level of Quality of Life among transgender individuals

This subsection examines quality-of-life levels across the domains of physical, psychological, social, and environmental health, as well as participants' overall quality of life. It also explores the association between quality of life and selected socio-demographic variables.

Table 2.1 Levels of Quality-of-Life Domains among Transgender Individuals

Quality of Life Domains	Observed N (%)	Expected N	Residual	Chi-square	d.f.	p-value
Physical Health						
Poor (Below 24)	12 (7.7)	52.0	-40.0	146.192	2	0.001**
Average (24–40)	123 (78.8)	52.0	71.0			
Good (Above 40)	21 (13.5)	52.0	-31.0			
Total	156 (100)					
Psychological Health						
Poor (Below 15)	17 (10.9)	52.0	-35.0	104.808	2	0.001**
Average (15–35)	112 (71.8)	52.0	60.0			
Good (Above 35)	27 (17.3)	52.0	-25.0			
Total	156 (100)					
Social Relationship						
Poor (Below 10)	38 (24.4)	52.0	-14.0	80.115	2	0.001**
Average (10–32)	103 (66.0)	52.0	51.0			
Good (Above 32)	15 (9.6)	52.0	-37.0			
Total	156 (100)					
Environment						
Poor (Below 26)	37 (23.7)	52.0	-15.0	35.577	2	0.001**
Average (26–42)	87 (55.8)	52.0	35.0			
Good (Above 42)	32 (20.5)	52.0	-20.0			

Total	156 (100)					
Overall Quality of Life (QOL)						
Poor (Below 47)	17 (10.9)	52.0	-35.0	111.500	2	0.001**
Average (47-63)	114 (73.1)	52.0	62.0			
Good (Above 63)	25 (16.0)	52.0	-27.0			
Total	156 (100)					

Parentheses given in brackets are percentages; **Significant at the 0.01 level.

Levels of Quality-of-Life Domains among Participants

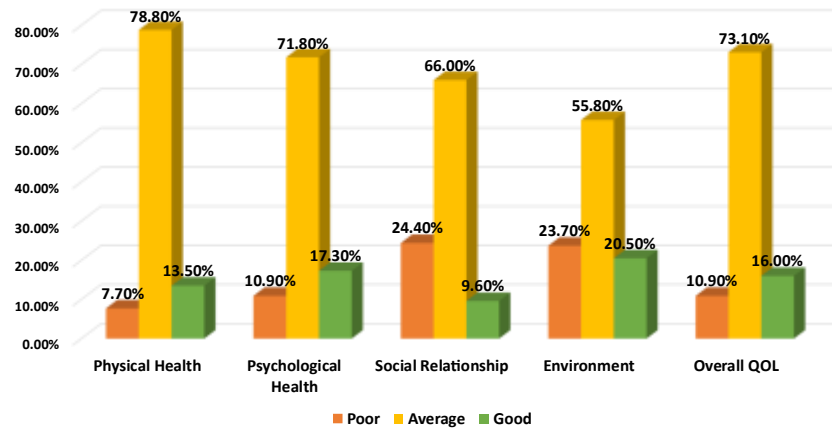


Figure 1

Table 2.1 details the quality-of-life levels among transgender individuals across several domains. In physical health, 7.7% reported poor health, 78.8% average, and 13.5% good, with a significant difference confirmed by the Chi-square test ($p < 0.001$). Psychological health showed similar trends with 10.9% poor, 71.8% average, and 17.3% good health, also significant ($p < 0.001$). In the social relationship domain, 24.4% reported poor quality, 66.0% average, and 9.6% good, again with significant findings ($p < 0.001$). Environmental quality revealed 23.7% poor, 55.8% average, and 20.5% good quality, significant as well ($p < 0.001$). Overall, 10.9% reported poor quality of life, 73.1% average, and 16.0% good, all significant ($p < 0.001$), indicating that the majority experienced an average overall quality of life.

Table 3.1 (a) Quality of Life by Age Group (N = 156)

Age Group	Mean	Std. D	F-test	d.f.	p-value
Youth (18-24 years)	53.48	7.75	4.649	(2, 153)	0.011*
Young Adult (25-35 years)	57.41	7.91			
Middle-aged Adult (36-59 years)	57.32	8.01			
Total	55.81	8.04			

**Significant at the 0.01 level

Table 3.1(a) displays the mean Quality of Life (QOL) scores for transgender individuals across three age groups: youth (18-24 years), young adults (25-35 years), and middle-aged adults (36-59 years), with scores of 53.48, 57.41, and 57.32, respectively. A One-Way ANOVA test indicated significant differences in QOL scores among these groups (p -value = 0.011), suggesting that quality of life varies by age group, with young adults reporting the highest scores.

Table 3.1 (b) Post Hoc Analysis of Quality of Life by Age Group (N = 156)

Comparison	Mean Difference	p-value	Interpretation
Youth (18-24 years) vs Young Adult (25-35 years)	3.93	0.012*	Significant
Youth (18-24 years) vs Middle-aged Adult (36-59 years)	3.84	0.122	Not Significant
Young Adult (25-35 years) vs Middle-aged Adult (36-59 years)	0.09	0.999	Not Significant

*Significant at the 0.05 level.

Table 3.1(b): Post hoc analysis indicated that young adults (25-35 years) exhibited significantly higher

quality of life scores compared to youth (18–24 years), with a mean difference of 3.93 ($p = 0.012$). No significant difference in quality-of-life scores was found between youth (18–24 years) and middle-aged adults (36–59 years) ($p = 0.122$). Similarly, the difference between young adults (25–35 years) and middle-aged adults (36–59 years) was not statistically significant ($p = 0.999$). Thus, the significant variation in quality of life identified by ANOVA was primarily due to differences between the youth and young adult groups, while other pairwise comparisons did not yield significant results.

Table 3.2 Quality of Life by Type of Residence (N = 156)

Type of Residence	Mean	Std. D	t-test	d.f.	p-value
Rural	51.84	7.33	4.047	154	0.001**
Urban	57.37	7.80			

**Significant at the 0.001 level

Table 3.2 shows the average Quality of Life (QOL) scores for transgender participants by type of residence. Those in rural areas had a mean score of 51.84, while those in urban areas had a mean score of 57.37. An independent-samples t-test found a statistically significant difference between the two groups (p -value < 0.001). This means transgender people living in urban areas reported higher quality-of-life scores than those in rural areas.

Table 3.3 (a) Quality of Life by Educational Status (N = 156)

Educational Status	Mean	Std. D	F-test	d.f.	p-value
No Formal Education	53.89	6.69	2.770	(3, 152)	0.044*
Primary	54.03	8.06			
Secondary	56.10	7.87			
Higher Secondary & Above	58.46	8.52			
Total	55.81	8.04			

*Significant at the 0.05 level

Table 3.3(a) shows mean Quality of Life (QOL) scores among transgender individuals based on educational status: no formal education (53.89), primary education (54.03), secondary education (56.10), and higher secondary education and above (58.46). A one-way ANOVA indicated a significant difference in QOL scores across educational levels ($p = 0.044$), suggesting that those with higher secondary education or above report better quality of life.

Table 3.3 (b) Post Hoc Analysis of Quality of Life by Educational Status (N = 156)

Comparison	Mean Difference	p-value	Interpretation
No Formal Education vs Primary	0.14	1.000	Not Significant
No Formal Education vs Secondary	2.22	0.650	Not Significant
No Formal Education vs Higher Secondary & Above	4.58	0.095	Not Significant
Primary vs Secondary	2.08	0.610	Not Significant
Primary vs Higher Secondary & Above	4.44	0.060	Not Significant
Secondary vs Higher Secondary & Above	2.36	0.500	Not Significant

P -value > 0.05 – Insignificant

Table 3.3 (b): The post hoc analysis revealed no significant differences in quality-of-life scores between groups based on education level: no formal education vs. primary ($p = 1.000$), secondary ($p = 0.650$), or higher secondary ($p = 0.095$). Similarly, there were no significant differences among primary vs. secondary ($p = 0.610$), primary vs. higher secondary ($p = 0.060$), and secondary vs. higher secondary ($p = 0.500$). Although the overall ANOVA indicated significant differences in quality of life among educational groups, the post hoc analysis showed that these differences were not attributable to specific educational pairs.

Table 3.4 (a) Quality of Life by Occupational Status (N = 156)

Occupational Status	Mean	Std. D	F-test	d.f.	p-value
Unemployed	49.95	4.80	38.310	(2, 153)	0.001**
Private Employed	59.37	7.16			
Self Employed	59.62	8.03			
Total	55.81	8.04			

**Significant at the 0.001 level

Table 3.4(a) shows mean Quality of Life (QOL) scores for transgender individuals by occupational status: unemployed (49.95), privately employed (59.37), and self-employed (59.62). A one-way ANOVA indicated a

significant difference in scores across these groups (p -value < 0.001), with self-employed participants achieving the highest QOL scores.

Table 3.4 (b) Post Hoc Analysis of Quality of Life by Occupational Status (N = 156)

Comparison	Mean Difference	p-value	Interpretation
Unemployed vs Private Employed	9.42	0.001**	Significant
Unemployed vs Self-Employed	9.67	0.001**	Significant
Private Employed vs Self-Employed	0.25	0.982	Not Significant

**Significant at the 0.01 level

Table 3.4(b): The post hoc analysis revealed that privately employed participants had significantly higher quality of life scores compared to unemployed participants ($p < 0.001$), as did self-employed participants ($p < 0.001$). No significant difference was found between privately employed and self-employed participants ($p = 0.982$). Thus, significant distinctions in quality of life were evident between the unemployed group and both employed groups, but not between the two employed groups themselves.

Section III To compare Quality of Life between trans men and trans women

Table 8.1 Comparison of Domains of Quality-of-Life Scores by Transgender Identity (N = 156)

Quality of Life Domains	Transmen Mean $\pm$ SD	Transwomen Mean $\pm$ SD	t-value	d.f.	p-value
Physical Health	33.13 $\pm$ 9.15	31.60 $\pm$ 7.53	1.137	154	0.257
Psychological Health	26.72 $\pm$ 10.58	24.23 $\pm$ 9.85	1.519	154	0.131
Social Relationships	22.38 $\pm$ 12.60	19.94 $\pm$ 10.04	1.343	154	0.181
Environment	34.29 $\pm$ 8.89	33.71 $\pm$ 7.40	0.451	154	0.653
Overall Quality of Life	56.65 $\pm$ 8.90	54.96 $\pm$ 7.04	1.317	154	0.190

P -value > 0.05 – Insignificant

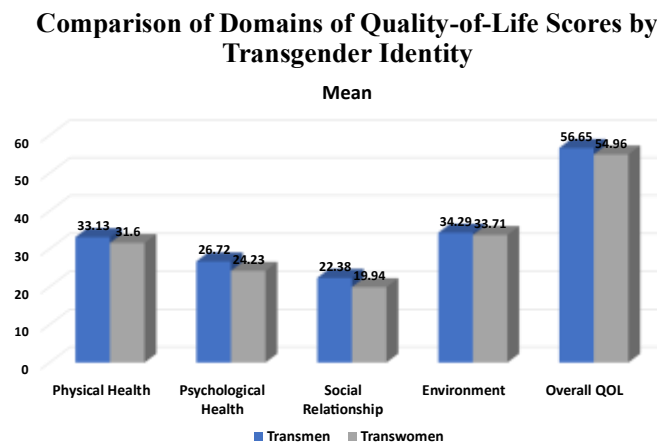


Figure 4

Table 8.1: In an analysis comparing quality of life between transmen and transwomen in Manipur, independent-samples t-tests revealed no statistically significant differences across various domains. Transmen scored higher in physical health (33.13 vs. 31.60), psychological health (26.72 vs. 24.23), social relationships (22.38 vs. 19.94), environment (34.29 vs. 33.71), and overall quality of life (56.65 vs. 54.96), but none of these differences were significant (p -values ranging from 0.131 to 0.653). Overall, the findings suggest comparable quality-of-life experiences for both groups across all domains.

DISCUSSION

Several sociodemographic factors are also linked to Quality of Life. Participants aged 25–35 reported higher quality-of-life scores than those aged 18–24, aligning with findings by Namita et al. (2023), while Mondal et al. (2026) found a negative age-quality of life correlation, suggesting context-dependent relationships. Urban participants also reported better quality of life than rural counterparts, contradicting Namita et al. (2023) which noted rural advantages, indicating local influences on transgender quality of life. Education showed a general positive association, but specific educational level differences were not significant. Employment status was strongly correlated with quality of life, with employed participants scoring higher than the unemployed, supporting previous research on the importance of financial stability and social participation

for transgender individuals. According to Silva et al. (2021), employment was linked to improved QoL-related ratings among trans men, Mondal et al. (2026) likewise found occupation to be important. According to the current study, 73.1% of transgender individuals rated an average overall quality of life. The social relationship domain showed the greatest proportion of participants reporting poor quality of life (24.4%), followed by the environmental domain (23.7%). These findings are consistent with previous research indicating that transgender individuals may experience difficulties in social and psychological aspects of quality of life as a result of stigma, discrimination, limited social support, and barriers to accessing appropriate services. In particular, Namita et al. (2023) reported that family support and perceived social support were positively associated with quality of life among transgender individuals. Thus, the relatively lower scores observed in the social relationship domain in the present study may reflect challenges related to social support, acceptance, and interpersonal relationships.

The present study also showed that there were no statistically significant differences in quality of life between trans men and trans women in any of the evaluated domains, according to the current study. In terms of physical health, psychological health, social relationships, environmental health, and general quality of life, trans men reported somewhat higher mean scores than trans women, but none of these differences were statistically significant. This implies that the quality of life for trans men and women in Manipur may be roughly equal. The result is in line with earlier research that found no appreciable variations in trans men's and trans women's quality of life. Silva et al. (2021) and Lima et al. (2024) showed similar quality-of-life outcomes between the two groups. According to Lad et al. (2024), transmasculine and transfeminine people had comparable quality-of-life scores, despite differences in the social and psychological aspects of wellbeing. The similar quality of life found in this study may suggest that both groups face structural and societal obstacles related to transgender identity, such as discrimination, social stigma, job difficulties, and hurdles to supportive services.

Limitations:

- The study employed a cross-sectional design which only provides information about Quality of Life at a particular point in time and restricts causal relationship assessments.
- Participants were recruited from selected community organizations in Manipur, primarily from the Imphal Valley, limiting the representativeness of transgender individuals in other regions. The reliance on self-reported information may be affected by participants' perceptions and willingness to disclose.
- Although both trans men and trans women were included, the study may not capture the full diversity of transgender experiences and other transgender types.
- It focused mainly on quality of life and some sociodemographic characteristics, neglecting other influential factors such as social support, stigma, family acceptance, economic conditions, and access to gender-affirming healthcare.

CONCLUSION

The current study concludes that most transgender people in Manipur had an average quality of life in all of the evaluated areas. Potential issues with social support, interpersonal relationships, living circumstances, and access to resources and services were highlighted by the comparatively higher percentages of poor quality of life in the social connection and environmental categories. In every quality-of-life dimension, trans men reported somewhat higher mean ratings than trans women, but these differences were not statistically significant, suggesting that the two groups' quality of life was equivalent.

The results also emphasized that some sociodemographic traits have an impact on quality of life. Higher quality-of-life scores were reported by participants who lived in urban areas and were between the ages of 25 and 35 who are young adults. Participants with higher levels of education tend to report higher quality-of-life scores. Participants who were employed reported higher quality of life than those who were unemployed, indicating a particularly strong correlation between employment status and quality of life. Overall, the results show how crucial social support, economic involvement, easily available resources, and welcoming social settings are to improve the lives of transgender people in Manipur. Their general well-being and quality of life may be improved by initiatives to lessen prejudice and increase access to jobs, healthcare, and social assistance.

REFERENCES

1. Naveen Manohar Pai, Shalini S Naik, C Naveen Kumar, Suresh Bada Math (Eds). Manual on Mental Healthcare of Transgendered persons in India. NIMHANS Publication No: 205; 2021, ISBN: 978-93-91300-07-4
2. Bochicchio, L. (2019). Socialising transgender: Support in transition Kate Norman. Available from (https://transreads.org/wp-content/uploads/2022/01/2022-01-13_61e07db30778c_SocialisingTransgenderSupportintransitionbyKateNormanz-lib.org_.pdf)
3. Skevington, S. M. (1999). Measuring quality of life in Britain: introducing the WHOQOL-100. *Journal of*

- psychosomatic research*, 47(5), 449-459.
4. Silva, E. D., Figuera, T. M., Allgayer, R. M., Lobato, M. I. R., & Spritzer, P. M. (2021). Physical and sociodemographic features associated with quality of life among transgender women and men using gender-affirming hormone therapy. *Frontiers in Psychiatry*, 12, 621075.
5. Coleman E, Bockting W, Botzer M, Cohen-Kettenis P, DeCuypere G, Feldman J, et al. Standards of care for the health of transsexual, transgender, and gender-nonconforming people, version 7. *Int J Transgenderism*. 2012;13(4):165–232.
6. Pinki, P. M., Duhan, K., & Pavithra, N. (2020). Status of transgender in India: A review.
7. Parola, N., Bonierbale, M., Lemaire, A., Aghababian, V., Michel, A., & Lançon, C. (2010). Study of quality of life for transsexuals after hormonal and surgical reassignment. *Sexologies*, 19(1), 24-28.
8. Motmans, J., Meier, P., Ponnet, K., & T'Sjoen, G. (2012). Female and male transgender quality of life: socioeconomic and medical differences. *The Journal of sexual medicine*, 9(3), 743-750.
9. Jellestad, L., Jäggi, T., Corbisiero, S., Schaefer, . J., Jenewein, J., Schneeberger, A., ... & Garcia Nuñez, D. (2018). Quality of life in transitioned trans persons: A retrospective cross-sectional cohort study. *BioMed research international*, 2018(1), 8684625.
10. Yumkhaibam, R. (2020). The emergence of a transgender community in Manipur: the case of the Nupi Maanbis. *Indian Journal of Gender Studies*, 27(2), 205-225.
11. Nobili, A., Glazebrook, C., & Arcelus, J. (2018). Quality of life of treatment-seeking transgender adults: A systematic review and meta-analysis. *Reviews in endocrine and metabolic disorders*, 19(3), 199-220.
12. Garcia Nuñez, D., Frigerio, G., Perler, L. D., Jäggi, T., Schönbucher, V., & von Känel, R. (2024). Quality of life and associated factors in Swiss trans people: a cross-sectional study. *Frontiers in Psychiatry*, 14, 1233625.
13. Chandy, N., Dabas, P., JS, K. R., & SS, R. (2023). A Cross Sectional Study To Assess The Quality Of Life And It's Determinants Among Transgenders In Kannur And Kasargod Districts Of Northern Kerala. *Global Journal of Medicine & Public Health*, 12(4), 01-09.
14. Lad, S. U., Sinopoli, J., Khong, B., Conroy, B., Perzynski, A. T., & Del Rincon, J. P. (2024). Clinical and sociodemographic characteristics as predictors for quality of life in transmasculine and transfeminine individuals receiving gender-affirming hormone therapy. *Social Science & Medicine*, 346, 116734
15. Lima Silva, C. M., Oliveira Matos, L. E., Ribeiro Sassaqui, A., Dias de Oliveira Filho, A., da Rocha, C. E., & de Carvalho Brito, G. (2024). Quality of life and level of satisfaction with pharmacotherapeutic follow-up in a transgender health center in Brazil. *Scientific Reports*, 14(1), 4259.
16. Mondal, A., Saha, S. K., Pal, P. P., Goswami, D. N., Basu, M., & Shukla, V. (2026). Assessment of Quality of life among Transgender Populations in a Metropolitan City of West Bengal, India: A Cross-sectional Study. *Indian Journal of Community Medicine*, 51(Suppl 3), S532-S539.
17. Skevington, S. M., Lotfy, M., & O'Connell, K. A. (2004). The World Health Organization's WHOQOL-BREF quality of life assessment: psychometric properties and results of the international field trial. A report from the WHOQOL group. *Quality of life Research*, 13, 299-310.