

## Original Research Article

# An assessment of quality of life of transgender adults in an urban area of Burdwan district, West Bengal

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## ABSTRACT

**Background:** Transgender people are stigmatised in our society and are being discriminated in every aspect of life. Many of them experience abuses in various forms since childhood. Accordingly these might have adverse consequences on their life and modify their quality of life (QOL). This aspect needs to be explored. In this context the present study was conducted to assess the QOL among adult transgender people and to find its association with their socio-demographic characteristics in Burdwan municipal area of Burdwan district.

**Methods:** A cross-sectional study was conducted during July-December 2016 among 79 adult transgender people residing in the study area. Sample size was based on 50% having satisfactory QOL with 95% CI, 10% relative error, and 10% non-response rate with finite population correction (total target reference population 96). Subjects were selected by simple random sampling and recruited for interview by time space sampling. Socio-demographic characteristics were assessed by a predesigned schedule and QOL was assessed by using a validated Bengali version of WHO-QOL BREF questionnaires.

**Results:** 56.9% people were found to have good QOL score as a whole. Maximum and minimum percentages of good QOL score was found in environmental domain (84.7%) and social relationship domain (45.8%). A significant positive correlation was found between education and monthly income with QOL score while negative correlation between age and QOL score. Marital status, current living status and occupation were found to have a statistically significant association with QOL score.

**Conclusions:** The study measured QOL as well as identified some important socio-demographic variables which affected QOL among transgender people. These findings can help the government to plan conceptually to improve QOL in this special transgender group of population by some legislation, social awareness and facilities dedicated towards them.

**Keywords:** Transgender, Quality of life, WHO-QOL-BREF questionnaires, Discrimination

## INTRODUCTION

Transgender is the state of one's gender identity or gender expression which does not match with one's assigned sex at birth.<sup>1</sup> Transgender is an umbrella term used to incorporate people of various gender identifications, including transsexuals, drag queens and drag kings, masculine women, feminine men, and others

who violate normative gender laws but who do not necessarily seek and/or obtain surgical and medical treatment.<sup>2</sup> Infrequently, the term transgender is defined very broadly to include cross-dressers, regardless of their gender identity.<sup>3</sup> There are at least 490,000 Transgender in India.<sup>4</sup> Transgender people are stigmatised in India and commonly known as Hijras. The social acceptance of transgender people is not same as male/female gender in Indian cultures and they face discrimination in many

ways like in housing, health, employment education, marriage etc.<sup>5,6</sup>

A study done in Bangalore showed that 45% of the transgender participants perceived that they have a good quality of life (QOL) and 13.3% of the participants responded that they have a very good QOL. Overall a moderate to good level of QOL of the transgender older adults was found. The association between overall QOL and monthly income was found to be statistically significant.<sup>7</sup>

A report on transgender people published by UNAIDS in 2014 mentioned that 65% to 85% of transgender people experienced verbal abuse, 25% to 45% faced physical abuse and almost 20% were sexually abused.<sup>8</sup> The Los Angeles Transgender Health Study has also shown that overall 80% transgender people being verbally abused and nearly 50% of them faced physical abuse.<sup>9</sup> Many of them experienced abuses from childhood to rest of their life in higher percentage compared to general population.<sup>10</sup>

All these adverse life circumstances are likely to have adverse psychological impact on transgender people which further may force them to tend job below their intellectual capacity. Many generate income from petty extortion, by performing at ceremonies, begging and sex work.<sup>11</sup> As a consequence of all these it seems that they suffered from poor QOL also.<sup>5</sup>

In India as well as worldwide most of the studies, survey or programmes on transgender people was related to life style behaviour and sexually transmitted diseases considering that they are at high risk group and source population for STI/RTIs.<sup>8,12-15</sup>

Though the society has started acknowledging what they are going through, the living conditions and the quality of life of the transgender people in the Indian context but till date only few studies are done in India.<sup>5,7,16,17</sup> There is a dearth of knowledge regarding socio-demographic characteristics and QOL of transgender people in West Bengal. With this background the present study was conducted with the following objectives.

### **Objectives**

1. To assess quality of life of adult transgender people in an urban area of Burdwan district.
2. To find out association between quality of life and various socio-demographic variables, if any.

## **METHODS**

### **Type and design of study**

Cross sectional, descriptive type of observational study

### **Study area/setting**

Burdwan Municipal area of Burdwan district, West Bengal.

### **Study duration**

July to December 2016

### **Study population**

Transgender People residing in the Burdwan Municipal area (Transsexuals, drag queens and drag kings, masculine women, feminine men, and others who violate normative gender laws. The term transgender also included cross-dressers, regardless of their gender identity).

### **Exclusion criteria**

Unwilling to participate in the study or under 18years of age or seriously ill.

### **Sample size and sampling technique**

Considering 50% having satisfactory quality of life among transgender people (No published data is available in West Bengal regarding QOL of transgender people by using WHO-QOL BREF scale) and 10% relative error with 95% CI, sample size will be 385 ( $N = Z^2 PQ / L^2$ ,  $Z = 1.96$ ,  $p = 50\%$ ,  $Q = 1 - P$ ,  $L = 10\%$  of  $P$ )

As the sample size was more than 10% of the reference target population (96), it was adjusted for finite population correction. The final sample size became 71. Considering non-response rate 10%, 79 samples was included in this study. Samples were drawn by simple random sampling.

(After discussion with the local organisation of transgender people, the total number of transgenders residing in Burdwan Municipal area was found to be 96.)

### **Study tools and technique**

#### **Tools**

#### **WHO-QOL Bref questionnaires**

(The WHO QOL-BREF contains a total of 26 questions. WHO QOL-BREF is based on a four domain structure, viz. Physical health, psychological health, social relationships and environment. Domain scores are scaled in a positive direction (i.e. higher scores denote higher quality of life).<sup>18</sup>

Predesign pretested schedule to assess the socio demographic characteristics of the study population.

## Technique

Interviewing the study subjects and application of WHO-QOL BREF questionnaires.

## Data collection

A representative from the transgender communities has been involved at the planning and execution level of data collection. At the beginning of this study, transgender people and transgender support groups were contacted and requested to broadcast the information about the study among its members as widely as possible and with their help the total number of transgender people living in Burdwan Municipal area was assessed. Required number of sample was then chosen by simple random sampling.

As this is a very special group of people and their responses regarding quality of life questionnaires may vary even in the different time of the day, 3 time zones (6 am – 10 am, 12 noon – 4 pm and 6 pm – 10 pm) has been selected and equal number of study subjects were recruited for assessment in this 3 time zone. Number of study subjects' recruitment was also spread out equally throughout the whole data collection period.

After taking written consent from each study participant a predesigned and pre tested schedule, to assess the socio-demographic characteristics, was filled up by the interviewer and a Bengali version of WHO-QOL BRIEF questionnaires was then applied. A WHO-QOL BREF questionnaire was self-administered. For illiterates, the questionnaire was filled up by representative of transgender after reading and explaining the questions. During data collection, every effort was taken to be non-judgmental and unbiased as the nature of the study involves sensitive issues like sex work engagement and sexual behaviours.

## Data analysis

The statistical analysis was done by using SPSS version 20 after entering the data in Excel sheet. Descriptive statistics has been used to describe the socio-demographic information and inferential statistical methods (correlation, association) were used to examine the relationship between quality of life and various socio-demographic variables. The items in WHOQOL-BREF were recoded and missing data were checked prior to analyses. For scoring and interpretation manual scoring guideline stated by WHO was followed. First individual domain wise raw score were calculated manually by a simple algebraic sum of each item in each of the four domains, then domain scores were transformed in order to be interpreted and compared with the original scale (0-100 scale).<sup>18</sup> Then the mean value and standard deviation of the transformed WHOQOL-BREF scores were calculated- both domain wise and in total. Score more than or equal to 50% of the maximum possible score was considered as satisfactory QOL score and anything less than that was consider poor QOL score. For domain 1-4 maximum possible score is 100 and overall maximum possible score is 400.

## RESULTS

### Socio-demographic details of the study subjects

Majority of the study population belong to the age group of 18-44 years and 59.7% of them were Muslim. Most of the people were unmarried (50%) and living with other transgender friends (63.9%). A major 22.2% were illiterate. The main source of income of 54.2% people was begging in train, 12.5% were in private organisation and 5.6% own business. An average income was Rs. 11000/month and 26.4% of them had income Rs.  $\geq$ 20000/month. In this study 98.6% people were verbally abused, 79.2% physically abused, 33.3% sexually abused and 18.1% faced childhood abuse at least once in lifetime. Almost 20% of them attempted suicide once or more in their lifetime (Table 1).

**Table 1: Socio-demographic characteristics (N=72).**

Variables	Frequency (%)	Variables	Frequency(%)
<b>Age</b>		<b>Marital status</b>	
18-44 years	53 (73.6)	Single	36 (50.0)
45-59 years	16 (22.2)	Married	14 (19.4)
$\geq$ 60 years	3 (4.2)	Separated	11 (15.3)
<b>Religion</b>		Divorced	6 (8.3)
Hindu	25 (34.7)	Widow/widower	5 (6.9)
Muslim	43 (59.7)	<b>Occupation/Source of income</b>	
Christian	4 (5.6)	Begging in train	39 (54.2)
<b>Monthly income</b>		Private job	9 (12.5)
Rs.<5000	17 (23.6)	Collection in social & religious events	9 (12.5)
Rs. 5000 - <8500	18 (25)	Business	4 (5.6)
Rs. 8500 - <20000	18 (25)	Bar dancer	3 (4.2)
Rs. $\geq$ 20000	19 (26.4)	Prostitution	2 (2.8)

Variables	Frequency (%)	Variables	Frequency(%)
<b>Original birth place</b>		Unemployed	6 (8.3)
Urban	41 (56.9)	<b>Current living status</b>	
Rural	31 (43.1)	With others transgender people	46 (63.9)
<b>Education</b>		Alone	10 (13.9)
Illiterate	16 (22.2)	Own family	9 (12.5)
Class I-IV	17 (23.6)	Parents/biological family	2 (2.8)
Completed primary	15 (20.8)	Male friend	5 (6.9)
Completed middle school	12 (16.7)	<b>Abuses and others</b>	
Completed secondary	5 (6.9)	Experienced childhood sexual abuse	13 (18.1)
Completed Higher-secondary	4 (5.6)	Experienced verbal abuse	71 (98.6)
Graduate	2 (2.8)	Experienced physical abuse	57 (79.2)
Post-graduate	1 (1.4)	Experienced sexual abuse in adult life	24 (33.3)
		Attempted suicide at least once	14 (19.4)

Table 2: Quality of life Score (N=72).

	Maximum possible score	Minimum score	Maximum score	Mean score	SD
<b>Dom 1- Physical health</b>	100	19	94	56.1	21.4
<b>Dom 2- Psychological health</b>	100	25	94	54.6	22.2
<b>Dom 3- Social relationship</b>	100	6	81	47.4	21.2
<b>Dom 4- Environment</b>	100	38	88	63.0	14.0
<b>Total QOL score</b>	400	131	332	221.1	67.8

\*Score described as per transform score in 0-100 scales (WHO-QOL BREF).19

Table: 3 Distribution of study subjects as per QOL score (N=72).

QOL	Measured QOL	
	Frequency	Percentages (%)
<b>Very poor</b>	-	-
<b>Poor</b>	21	29.3
<b>Neither poor nor good</b>	24	33.3
<b>Good</b>	19	26.4
<b>Very good</b>	8	11.1

Table 4: Categories of quality of life scores (N=72).

	Satisfactory QOL*		Poor QOL**	
	Frequency	Percentages (%)	Frequency	Percentages (%)
<b>Dom 1- physical health</b>	46	63.9	26	36.1
<b>Dom 2- psychological health</b>	42	58.3	30	41.7
<b>Dom 3- social relationship</b>	33	45.8	39	54.2
<b>Dom 4- environment</b>	61	84.7	11	15.3
<b>Total QOL score</b>	41	56.9	31	43.1
<b>Perceived QOL (themselves)</b>	37	51.4	35	48.6

\*For dom1-4 score  $\geq 50$  and for overall QOL score  $\geq 200$  considered as satisfactory QOL score.

\*\* For dom1-4 score  $< 50$  and for overall QOL score  $< 200$  considered as poor QOL score.

### Assessment of the Quality of life of the study populations

Mean score of QOL as a whole was 221.1 and individual domain wise mean score of physical health, psychological health, social relationship and environment were 56.1, 54.6, 47.4 and 63.0 respectively. Good and very good QOL score were found among 26.4% and

11.1% people, 29.3% had poor QOL score and none had very poor QOL score. Majority of study population (56.9%) had overall satisfactory QOL however in environmental domain 84.7% had satisfactory QOL and in social relationship domain only 45.8% had satisfactory QOL. Perception of QOL showed that only 51.4% were satisfied with their QOL (Table 2- 4).

### Association and correlation of QOL score with different socio-economic characteristics

The association between marital status, current living status and main source of income with overall QOL score

was found to be statistically significant. Monthly income and education of the study population had a significant positive correlation with their QOL score. A significant negative correlation was found to exist between age and QOL score (Table 5, 6).

**Table 5: Association between QOL with some socio-demographic variables (N=72).**

	QOL Score			
Original birth place	Satisfactory QOL (%)	Poor QOL (%)	Total (%)	Chi-square value=0.631, df=1, p≥0.05 (Statistically not significant)
Urban	25 (61.0)	16 (39.0)	41 (100)	
Rural	16 (51.6)	15 (48.4)	31 (100)	
Total	41 (56.9)	31 (43.1)	72 (100)	
Religion				
Hindu	15 (60)	10 (40)	25 (100)	Chi-square value=5.603, df=2, p≥0.05 (Statistically not significant)
Muslim	26 (60.5)	17 (39.5)	43 (100)	
Christian	-	4 (1.7)	4 (100)	
Total	41 (56.9)	31 (43.1)	72 (100)	
Marital status				
Single	16 (44.4)	20 (55.6)	36 (100)	Chi-square value=12/041, df=3, p≤0.05 (Statistically significant)
Married	11 (78.6)	3 (21.4)	14 (100)	
Separated	10 (90.9)	1 (9.1)	11 (100)	
Widow/widower/divorced	4 (36.4)	7 (63.6)	11 (100)	
Total	41 (56.9)	31 (43.1)	72 (100)	
Current living status				
Others transgender, male friend	23 (45.1)	28 (54.9)	51 (100)	Chi-square value=10.263, df=2, p≤0.05 (Statistically significant)
Parents, Own family	10 (90.9)	1 (9.1)	11 (100)	
Alone	8 (80.0)	2 (20.0)	10 (100)	
Total	41 (56.9)	31 (43.1)	72 (100)	
Occupation				
Begging in train, social entertainment	28 (58.3)	20 (41.7)	48 (100)	Chi-square value=13.063, df=4, p≤0.05 (Statistically significant)
Private job	9 (100)	-	9 (100)	
Business	1 (25.0)	3 (75.0)	4 (100)	
Bar dancer, prostitution	2 (40)	3 (60)	5 (100)	
Unemployed	1 (16.7)	5 (83.3)	6 (100)	
Total	41 (56.9)	31 (43.1)	72 (100)	

**Table 6: Correlation between age, monthly income and education with overall QOL score.**

Variables	Quality of life	
	Correlation coefficient	P value
<b>Age</b>	Pearson Correlation coefficient = -.314	0.007
<b>Monthly income</b>	Pearson Correlation coefficient =.457	0.000
<b>Education</b>	Spearman's rho Correlation coefficient =.574	0.000

## DISCUSSION

### Socio-demographic characteristics

The present study showed that 50% of transgender people were single and 19.4% were married. The problem of illiteracy was 22.2%. Begging in train was the main source of income of 54.2%. At present 63.9% of them are living with others transgender friend and 13.9% were

living alone. About 26.4% of them having monthly income Rs.≥20000.

A study done in Karnataka among older transgender adult also found similar prevalence of illiteracy but percentages of people involved in begging was quite high.<sup>7</sup> More number was living with other transgender people compared to the present study. Monthly income was much higher in this present study than the previous study. Another study in South India showed a very high



percentage of them were single (93.3%) and only 27.7% were beggar by occupation, which is contradictory to this present study.<sup>5</sup> This result was found probably due to extremely low sample size of that previous study.

In this study almost all the people were verbally abused, 79.2% were physically abused and 33.3% were sexually abused even 20% of them attempted suicide at least once in their lifetime. A report published by UNAIDS and the Los Angeles Transgender Health Study showed lesser rate of verbal and sexual abuse which was probably due to different social and cultural view.<sup>8,9</sup> National center for transgender equality report showed 41% transgender people have suicidal attempt at least once in a lifetime which was also very high compared to this present study (Table 1).<sup>19</sup>

### **Quality of life**

In the all domain, QOL score were found to be  $\geq 50\%$  except social relationship domain where mean score was 47.4. QOL score was highest in environmental domain and lowest in social relationship domain. There were almost 37% of study population had good or very good QOL score and almost 30% had poor QOL score. No one got very poor QOL score.

The overall QOL mean score was 221.1 and 56.9% were having satisfactory QOL score. A study by George, Janardhana and Muralidhar found moderate to good QOL score in all the 4 domain of QOL.<sup>7</sup> The percentage of people belongs to the group of good and very good QOL score was much higher than the present study. Another study by Poguri, Sarkar, Hawa using WHO QOL-BREF showed that among all domains, mean QOL score was highest in environmental domain and lowest in social relationship domain which is very similar to this present study (Table 2 and 3).<sup>5</sup>

### **Association and correlation of QOL score with different socio-economic characteristics**

Chi-square test showed that there was statistically significant association existing between marital status, current living status and occupation with overall QOL score. Monthly income and education were found positively correlated with overall QOL score though age was correlated negatively. Similar type of significant positive correlation between monthly income and QOL score was also found in a study done in Karnataka (Table 4 and 5).<sup>7</sup>

### **CONCLUSION**

The study helped us in understanding the quality of life of transgender adults as well as identifying some important socio-demographic characteristics which had impact on QOL. Most of them were suffering from poor social relationship as well as poor QOL. Quality of life had a statistically significant association with marital status,

current living status and occupation. This study also showed that higher education and higher monthly income are positively correlated with the satisfactory QOL. So these are the areas where emphasis can be given to improve QOL. Older age had negative correlation with QOL so such population should also be brought under geriatric care programme.

Since the study was done in a small sample and in a particular geographic area, multicentric study with large sample is recommended which might be able to discern other issues related with their QOL and act as a ready reference to provide guidelines to society and policy makers to improve the QOL of transgender people.

### **Limitations**

There is a chance of self-selection bias as no specific method was applied to confirm the transgender ship of study population.

### **Scope of the study**

We hope that this study will be welcomed by transgender people and they will feel that their voices have been heard. We also hope that the findings of the study will sensitise public bodies and other service providers to commit resources for further understanding and better inclusion of the mental health needs of transgender people. Additionally, we expect to motivate the decision makers to implement changes for improving health and wellbeing outcomes of the transgender population.

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