

Psychiatric Comorbidities, Substance Abuse and Suicide Risk in Transgender Population

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Abstract:

Background: Transsexuals suffer from constant discomforts on several areas such as, job loss, accommodation, family acceptance, discrimination, emotional upset and so on. Transgender individuals and those with gender dysphoria may also have psychiatric disorders that are independent of their gender concerns, and while even serious mental illness such as major depression, bipolar disorder, borderline personality disorder and schizophrenia are not absolute contraindications to gender transition, they must be adequately treated so as not to interfere with adherence with the transition regimen. Based on this aim of our study is to assess the prevalence of psychiatric co morbidity, substance abuse and suicidal risk in transgender population.

Methodology: The study population comprised of both Transmen and Trans women from the community in and around Chennai. A semi structured proforma to collect the relevant sociodemographic details and clinical profile. Mini –International Neuropsychiatry interview (MINI)-plus scale for assessing psychiatric comorbidities. All the analysis was done using statistical package for windows version 22.

Results: The study included 88 transgenders with male to female 85 and female to male 3. Coming to history, 22.7% had past history of major depressive disorder, major depression at current is more common in MTF patients than in FTM. Major depressive disorder recurrent is more common in MTF (1.1%) than MTF. In our study, 23.9% of FTM transgender had lifetime risk of suicidality and 66.7% in FTM. 2.3% MTF has risk of Suicidality at present, which is more common than FTM transgender. 1.1 percentage MTF has risk of suicidality in future. Sexual abuse was present in 49.4% among MTF.

Conclusion: Our study attempted to discern the psychiatric morbidities among the transgender population. Gender identity disorder is a diagnostic entity in its own right, not necessarily associated with severe comorbid psychological findings. The disproportionately high prevalence of physical and/ or sexual abuse within transgender population's calls for interventions that explore the sources of resilience. Access to routine primary care, diagnostic screening, psychotherapy, pharmacologic treatments, and community-based, pediatric/adolescent clinic settings are needed to address mental health problems and substance use disorders in this population.

Keywords: Transgenders, Psychotic disorders, Suicide.

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Introduction

Being a transgender is a sparse condition where there is a constant inconsistency between the biologically assigned sex and the identity of gender, which is linked with significant impairment in social, occupational, interpersonal, and the other areas of functioning.

Transgender has been included under the spectrum of gender dysphoria in DSM-5 and under gender identity disorder (GID) according to ICD-10. DSM 5 prevalence of gender dysphoria in adults from the United States was 1 in 30, 000 in men and 1 in 100, 000 in women [1]. 2011 census in India accounted for around 4.9 lakhs of transgender in India [2]. Although exact prevalence of this population is

unavailable, trends across different studies suggest that gender dysphoria is more common in natal males than natal females with a prevalence ratio of 3:1 [3]. The worldwide lifetime prevalence is approximated to be 0. 001–0.0024. In spite of India showing progress in various medical, economic and social fronts, the care of the transgender individual is still hampered by the various biases and proscription that people hold. But this was not true in the ancient times.

Though Indian data is sparse, review of literature regarding persons with gender dysphoria shows higher rates of psychological problems and psychiatric disorders, such as negative self-image, low

self-esteem, adjustment disorders, depression, suicidality, and personality disorders compared to normal controls.

Transsexuals suffer from constant discomforts on several areas such as, job loss, accommodation, family acceptance, discrimination, emotional upset and so on. It has been clarified that surgical anatomical transformation brought more positive effects on their future than what has been predicted by related health professionals. Many previous studies conducted by western countries shows that transsexuals might have relatively permissive circumstances. Traditionally, Oriental countries such as Korea have oppressive attitudes to transsexualism.

Survey studies have consistently found transgender men and women to report higher rates of substance abuse, suicidal ideation, suicide attempts and stress related psychiatric disorders (e.g. anxiety, depression and somatization) compared to national norms. As noted, many report misusing substances to cope with stigma and discrimination due to their gender expression. Similarly, self-reported social stigma and discrimination have been found to be correlated with the degree of psychological distress. [4,5] These findings based on self-report are similar to recent findings based on examining the electronic health records of transgender US veterans who received care through the Veterans Health Administration. Specifically, transgender veterans were found to have an increased prevalence of post-traumatic stress disorder, depression, alcohol abuse, and suicidality. Examination of mortality data revealed that veterans with transgender related ICD-9 diagnosis have an increased suicide rate, with the average age of suicide being 49.4 years. [5,6]

Transgender individuals and those with gender dysphoria may also have psychiatric disorders that are independent of their gender concerns, and while even serious mental illness such as major depression, bipolar disorder, borderline personality disorder and schizophrenia are not absolute contraindications to gender transition, they must be adequately treated so as not to interfere with adherence with the transition regimen. Very importantly, the manifestation of coexisting disorders should not be mistaken for manifestation of GD that will resolve with transition. Those in transition should understand that co-existing psychiatric disorders are very likely to persist and require treatment after transition. [6] Masahiko Hoshiai et al. evaluated psychiatric co morbidities in transgender population in Japan. Using DSM-IV criteria, 579 patients (96.0%) were diagnosed with GD. Among the GD patients, 349 (60.3%) were the female-to-male (FTM) type, and 230 (39.7%) were the male-to-female (MTF) type. Current psychiatric comorbidity was 19.1% (44/230) among MTF patients and 12.0% (42/349) among FTM patients. The lifetime

positive history of suicidal ideation and self-mutilation was 76.1% and 31.7% among MTF patients, and 71.9% and 32.7% among FTM patients. Among current psychiatric diagnoses, adjustment disorder (6.7%, 38/579) and anxiety disorder (3.6%, 21/579) were relatively frequent. Mood disorder was the third most frequent (1.4%, 8/579). [7,8,9]

Haraldsen and Dahl reported that transgender patients who had undergone sex reassignment surgery showed a relatively low level of self-rated psychopathology, stating that the view that transsexualism is associated with severe psychiatric co morbidities is doubtful. [10] Cole et al., reported that less than 10% of transgender population had mental illness associated with transsexualism. [11] Reisner et al, reported that of the 298-transgender female, 41.5% had 1 or more mental health or substance dependence diagnoses. Prevalence of specific disorders was as follows: lifetime and current major depressive episode, 35.4% and 14.7%, respectively; Suicidality, 20.2%; generalized anxiety disorder, 7.9%; post-traumatic stress disorder, 9.8%; alcohol dependence, 11.2%; and non-alcohol psychoactive substance use dependence, 15.2%. [12]

There is evidence that transgender populations are at increased risk for suicide. Because gender identity is not systematically recorded at the time of death, the number of transgender deaths from suicide is not known. However, high rates of suicide have been reported among individuals receiving medical interventions for gender transition. [13] Non-disclosure of transgender status is associated with lower risk of suicide attempts, possibly because hiding protects against rejection, discrimination, and victimization, which are otherwise strongly linked to suicide attempts in transgender populations. In surveys, 25 to 43% of transgender adults have reported lifetime suicide attempts. [5] Based on this aim of our study is to assess the prevalence of psychiatric co morbidity, substance abuse and suicidal risk in transgender population.

Materials and Methods

The study population comprised of both Transmen and Transwomen from the community in and around Chennai. All consenting transgender as per ICD -10 aged above 18 years willing to provide written informed consent were included in the study. Those with Comorbid medical illness. Associated mental retardation Patients with neurological illness was excluded.

A semi structured proforma to collect the relevant sociodemographic details and clinical profile. Mini-International Neuropsychiatry interview (MINI)-plus scale for assessing psychiatric comorbidities. All the analysis was done using statistical package for windows version 22. Inferential statistics such as Chi-square and Fisher's exact was used to

find statistical significance. M.I.N.I 7.0.2 Scale was used. This scale was designed as a brief structured interview for the Major Psychiatric disorder in ICD 10 and DSM 5. Various studies show that M. I. N. I can be administered in shorter period of time (median 15 mins) with good validity and reliability. After a brief session, clinician can be used and laypersons need extensive training. In order to keep the interview as brief as possible, inform the patient that you will conduct a clinical interview that is more structured than usual, with very precise questions about psychological problems, which require a yes or no answer. The M.I.N.I. is divided into modules identified by letters, each corresponding to a diagnostic category. At the beginning of each diagnostic module (except for psychotic disorders module), screening question(s) corresponding to the main criteria of the disorder are presented in a grey box. At the end of each module, diagnostic box (es) permits the clinician to indicate whether diagnostic criteria are met. All questions must be rated. The rating is done at the right of each question by circling either YES or NO.

Clinical judgment by the rater should be used in coding the responses. Interviewers need to be sensitive to the diversity of cultural beliefs in their administration of questions and rating of responses. The rater should ask for examples when necessary, to ensure accurate coding. The patient should be encouraged to ask for clarification on any question that is not clear. The clinician should be sure that each dimension of the question is taken into account by the patient (for example, period, frequency, severity, and/or alternatives).

Results:

The study included 88 transgenders with male to female 85 and female to male 3. The mean age among our study population was 28.8 years with

SD of 8.0. Male to female – mean age was 29.8 years and female to male mean age was 26.7 years. The majority of transgender had their gender dysphoria between 5 to 10 years (p value=0.28). 1.1% experienced dysphoria between 16 to 20 years. In our study, 4.5% of the transgenders were illiterate, 9.1% completed their primary schooling only, 15.9% completed middle school education only, 22.7% completed their high school education only, 21.6% were completed their higher secondary schooling or diploma, 21.6% were graduates and 4.5% completed their professional education.

In addition, in our study, 47.7% were unemployed, 12.5% were doing unskilled work, and 2.3% in semiskilled job and 11.4% were doing skilled jobs. 14.8% works in a shop as accountant, receptionist and as clerks. 8.0% were involved in semi-professional works and 3.4% works as professionals. 52.9% belongs to upper lower socioeconomic status. 37.9% belongs to middle socioeconomic status. 3.4% belongs to upper socioeconomic status. 80.7% were hailing from urban settings. 19.3% were from rural area. Coming to history, 22.7% had past history of major depressive disorder, major depression at current is more common in MTF patients than in FTM, but the difference is not statistically significant. Major depressive disorder recurrent is more common in MTF (1.1%) than MTF. In our study, 23.9% of FTM transgender had lifetime risk of suicidality and 66.7% in FTM. 2.3% MTF has risk of suicidality at present, which is more common than FTM transgender. 1.1% MTF has risk of suicidality in future. There is no statistical significant difference between MTF and FTM. However, there is no prevalence of suicidal behavior at present in our study population in both MTF and FTM.

Table 1: Suicidality thoughts and behavior

Type of Suicidal Illness	FTM(N=3)	MTF(N=85)	total
Suicidality - Life Time Attempt	2	19	21
Suicidality - Current	0	2	2
Suicidality - Likely In Future	0	1	1
Suicidal Behaviour Disorder	0	0	0
Suicidal Behaviour Disorder - Early Remission	0	0	0
Suicidal Behaviour Disorder - Remission	0	8	8

No patients had manic disorder in our study population in both present and past. Similar there was no symptoms of hypo manic episode in present or past. Similarly, no one presented with panic episode.

There is 1% prevalence of Agoraphobia in MTF study population. Also among MTF study population has 1% of social anxiety disorder at

present. No one had obsessive-compulsive disorder or post-traumatic stress disorder. No one had psychotic disorder and mood disorder - both past and present. Anorexia Nervosa was present in one participant, while no one had bulimia nervosa.

Three of our study group had generalized anxiety disorder. No one had anti-social personality disorder.

Table 2: Type of psychiatric comorbidity

Type of Psychiatric Comorbidity	FTM(N=3)	MTF(N=85)	Total
Major Depressive Disorder - Past	2	18	20
Major Depressive Disorder - Current	0	2	2
Major Depressive Disorder - Recurrent	0	1	1
Manic Episodes - Current And Past	0	0	0
Hypomanic Episodes - Current And Past	0	0	0
Hypomanic Symptoms - Current And Past	0	0	0
Panic Disorder - Current And Past	0	0	0
Agoraphobia - Current	0	1	1
Social Anxiety Disorder - Current	0	1	1
Obsessive Compulsive Disorder - Current	0	0	0
Post-Traumatic Stress Disorder - Current	0	0	0
Psychotic Disorder - Lifetime	0	0	0
Psychotic Disorder - Current	0	0	0
Mood Disorder With Psychotic Feature - Past & Current	0	0	0
Anorexia Nervosa	0	1	1
Bulimia Nervosa	0	0	0
Generalised Anxiety Disorder - Current	0	3	3
Anti-Social Personality Disorder	0	0	0

In our study 3.5% of alcohol dependence in MTF, this is more common than FTM. Substance use disorder was present in 1.2% of participants among MTF. Physical abuse was present in 43.5% in MTF and 66.7% in FTM, but the difference is not

statistically significant. Sexual abuse was present in 49.4% among MTF. 54.5% of transgenders have family acceptance and support and the difference between MTF (54. 1%) and FTM (66.7%) was not statistically significant.

Table 3: Substance abuse and other type of abuse

Substance Abuse & Physical Abuse	FTM(N=3)	MTF(N=85)	Total
Alcohol Use Disorder - Past 12 Months	0	3	3
Substance Use Disorder - Non Alcoholic	0	1	1
Physical Abuse	2	37	39
Sexual Abuse	0	42	42

In our study, 54.1% of MTF and 66.7% of FTM undergone sex reassignment surgery. 17.0% MTF had undergone genital surgery and 66.7% of FTM & 2.3% of MTF undergone breast removal and breast augmentation surgery respectively. 35.2% of MTF undergone both genital and breast surgery. The statistical difference between MTF&FTM is significant with P value (<0. 001).

Below is the level of satisfaction after sex reassignment surgery in study population. 50% of both MTF & FTM reports that their satisfaction level is between 60-80% and 45.7% of MTF reports that their satisfaction score is between 81-100%. The difference is statistically significant (p value <0. 04).

Discussion

This study included 88 transgenders with male to female were 85 and female to male were 3. The mean age among our study population was 28.8 years with SD of 8.0. Male to female – mean age was 29.8 years and female to male mean age was 26.7 years.

George et al. in 2015 studied quality of life of

transgender older adults at Bangalore, Karnataka and reported only 38.3% of people completed their primary school of education and 75% of them used to beg for their living and 90% of them used to live separately away from their home. [14] Our study found 95.5% of the cases completed their primary schooling and 52.3% of them were self-employed, mostly in saloons and beauty parlors 47.7% were dependent on others in streets for food and 54.5% in our study used to live with their parents. Significant differences in the sociodemographic profile may be due to cultural and social differences across the states.

Kussin-Shoptaw et al. reported around 84.9% of transgender women experienced physical or sexual abuse at some point in their lifetime. [15] In our study, sexual abuse was found in 54.5% of them. Lower familial coherence and adaptability were found by Kim et al. in 2006 [16]. In our study, we found good family support and acceptance in 54.5% of the total.

Reisner et al [17] found lifetime and current major depressive episode of 35.4% and 14.7%, respectively, among their study group. Similar to this, our

study found past episode of depression of 2.3% and current depression of 1.1%

Suicidality, GAD and PTSD were reported among 20.2%, 7.9%, and 9.8% by Reisner et al [17] in their study group. Our study found 1.1% of the study population to have current suicidal risks and 2.3% past suicidal attempts was found in 1.1% in our study. Higher prevalence of these disorders can also be explained as the overall prevalence of mental health disorders in Manipur (14.4%) itself is high, as evidenced by recent national mental health survey 2015–2016.

Alcohol dependence of 11.2% and non-alcohol psychoactive substance use dependence of 15.2% were found by Reisner et al [17] in their study group. Whereas we found 3.4% of alcohol dependence and 1.1% prevalence of other nonalcoholic psychoactive substance among our group. Higher prevalence of substance use disorder may be explained due to its geographical location, as Manipur is a part of “Golden Triangle” which is known for illicit drug trafficking.

The percentage of patients with current psychiatric comorbidity was lower among FTM patients than MTF patients. However, the difference is not statistically significant. Cole et al., reported that psychiatric comorbidities is more frequent among MTF as it is in ours. [18]

Hareldson and Dahl did not distinguish the frequencies of psychiatric comorbidities among MTF and FTM transgender. MTF transgender shows high percentage of Satisfaction after sex reassignment surgery (80-100%) than FTM, which is statistically significant. Sexual abuse is more commonly reported in MTF transgender. But not statistically significant

Limitations:

The limitations of this study are based in its cross-sectional design with self-report measures. Participant's life events and current symptoms were not verified by using other sources of information. Cultural attitudes and norms in transgender population in other urban areas may be different and lead to different outcomes. Suicidality was assessed using the MINI-Plus interview, which was also used to measure Axis I disorders; therefore, we could not investigate whether there was an association between suicide risk and having an Axis I disorder.

Conclusion

Our study attempted to discern the psychiatric morbidities among the transgender population. Gender identity disorder is a diagnostic entity in its own right, not necessarily associated with severe comorbid psychological findings. Most transsexuals weather adverse psychosocial milieu in view of their

inherent phenotypic differences in their makeup, which put them in a disadvantageous position in the general society. The disproportionately high prevalence of physical and/ or sexual abuse within transgender population's calls for interventions that explore the sources of resilience. Access to routine primary care, diagnostic screening, psychotherapy, pharmacologic treatments, and community-based, pediatric/adolescent clinic settings are needed to address mental health problems and substance use disorders in this population. Further research will be critical, particularly longitudinal studies across development, to understand risk factors and identify optimal timing and targets for psychosocial interventions.

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