

A Narrative Review on Priorities of Mental Health Issues among Transgenders: “So Near, Yet so Far”

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Abstract

In recent years there is a rapid rise in coming out of sexual and gender minority adults to their family members and society. Unfortunately, studies on unmet health needs of transgenders with a special focus to mental health is under-researched in India. The current paper aimed to explore about the mental health of transgenders and a literature search was done using PubMed, Google Scholar, and Scopus databases for the following medical subject headings (MeSH) key terms “transgender”, “mental health”, “social stigma”, “LGBT”, “gender dysphoria”, “genderqueer”, “intersex”, “MSM”, “hijra”, “gay”, “lesbian”, “bisexual”, and “homosexual”. Transgender individuals were found to show high rates of mental health concerns. The most common mental health problems that we have shown in this review article are depression, obsessive-compulsive disorders, generalized anxiety disorders, suicidal attempts and bipolar disorders. Transgender people are at more risk for mental health problems than their heterogenous counterparts. The intervention program to eliminate or reduce these problems needs to be planned carefully, considering all the determinants.

Keywords: Mental health, Transgender, Social Stressors, future research.

INTRODUCTION

The term “Transgender” (TG) is an umbrella term that denotes individuals whose gender identity or expression or behavior does not match their sex assigned at birth.^[1]

The ancient Vedic and Puranic literature mention “Tritiya-prakriti” meaning the third gender.^[2] Ancient Indian scriptures as well as more secular text also provide enough evidence of same-sex (i.e., male-male or female-female) relationships.^[3] Even though homosexuals have been depicted often in ancient literature but they have never secured social validation in any fraction of Indian society.^[4] Since time, the heterosexual act is accepted to be the only acceptable way of interaction among genders in the community.

Discussion about same-sex attraction has always been a taboo in India and traditional Indian family values contribute

to discrimination against them. Increased rates of psychiatric comorbidities can be understood as a normal reaction to familial and societal rejection.

During census data collection, there was no recognition for the third gender. A new category was introduced for the first time in the 2011 census with the move away from the binary perspective of gender with three options: “female,” “male,” and “other. The total population of transgender in India is 4.88 lakh as per the census of 2011.^[5] Probably they are in large number, but due to social exclusion from society, their

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population count is underestimated.^[1] In 2014 the Supreme Court of India passed a unique judgment stating one's sexual orientation as an integral part of personality, dignity, and freedom and identified transgender as a third gender.^[4] Following the Supreme Court decision, numerous states in India have established policies to guarantee constitutional rights for transgenders.

In India, where family and friends serve as social insurance for later life, still ageism and internalised homophobia have the potential to impair mental health outcomes for older transgender people.^[6] Despite the fact that the transgender population is growing increasingly vocal about their rights, studies on unmet health needs in this group in India remain under-researched. In India, transgender-friendly healthcare services are basically non-existent. Healthcare practitioners still address gender incongruence with the sex assigned at birth as a psychological aberration or a mental condition.^[7] Unmet transgender-specific healthcare requirements affect around 20% of transgender people in India.^[8] National health programs scarcely address transgender people's psychological needs, even during the COVID-19 pandemic, there demand was barely satisfied.^[9] This current study is a small attempt to illuminate on various determinants leading to psychiatric comorbidities among transgenders and factors affecting their mental wellbeing

METHODOLOGY

This current paper aimed to explore the burden of psychiatric morbidities among transgenders and the factors affecting their mental wellbeing. A literature search was done using PubMed, Google Scholar, and Scopus databases for the following medical subject headings (MeSH) key terms "transgender," "mental Health," "psychiatric morbidities" "social stigma," "LGBT," "gender dysphoria," "genderqueer", "intersex", "MSM", "hijra", "gay", "lesbian", "bisexual", and "homosexual". We reviewed all article published before December 2022. Only peer reviewed and free full text available articles were included. We considered original articles, systematic reviews, meta-analysis, letter to editors, commentaries, short communication published in peer reviewed Indian and international journals. Case reports or case series and conference proceedings were excluded. All the relevant articles were included to support the argument for this narrative review. After going through national and international articles, we found that mental health burden among these sexual minorities is still not researched extensively in India.

RESULTS AND DISCUSSION

We found 28 reviews and reports, 9 view points and comments, 7 editorials and 60 original articles. As there was a paucity of data related to comprehensive mental health issues of transgenders only, we also included studies that revealed that mental health disorder is an iceberg problem in sexual

minority group, including MSM, gay, lesbian and bisexuals. Prevalence rates for various psychiatric morbidity from various Indian studies are presented in Table 1.

Factors Affecting the Mental Wellbeing of Transgenders

It has been established that MSM residing in U.S. and other Western nations are also experiencing issues like depression and suicidality at a higher prevalence in comparison to general population. Psychiatric events like suicide, suicide attempts, depression and anxiety are seen more among transgender persons.^[28,31] Globally, almost 450 million people are suffering from mental health issues.^[32] In a population-based survey conducted across western countries found that 11% of sexual minority adults have attempted suicide in their lifetime compared to 4% of heterosexual adults.^[33] A multi-center study in Europe found rate of an attempt to suicide is 30%.^[31] Prevalence of psychiatric morbidity was found to be 52.9% across various parts of India.^[34] Studies in India has shown that MSM are at risk for depression with estimates ranging from 29 to 55%. Depression varied considerably across regions/state and cities with Tamil Nadu having the highest prevalence of depression.^[22] Sexual Minorities frequently turn to self-medication due to a fear of stigma and discrimination on the part of medical professionals; hence the psychological needs of these groups may not be properly met as a result of underreporting of cases by the healthcare sector.^[20,29,33] After going through various articles, we have described below few stressors which can impact the psychosocial health of this gender non-conforming individuals.

Discrimination Across Multiple Social Settings

Role of social stressors is well established in impacting the mental health status of sexual minorities in India.^[28] Prejudice towards them is one of the major contributors for increase in psychosocial problems like depression, anxiety and suicide attempt. Individuals receiving greater support from friends and family have reported higher levels of self-esteem and greater satisfaction towards life. Constant exposure to discrimination at school, workplace and other public places can create low self-esteem, self-isolation, higher vulnerability to HIV/STI and poor mental health. Once they are out publicly, they are exposed to public harassment and rejection from family and relatives. They refrain from exploring their sexuality because of the heterosexual socialization around them which often prevent them from leading a respectable life.^[30] Social support group need hour to create a more resilient attitude towards life adversity.^[28]

Financial Exclusion

Poverty and poor health are well connected; TG experiences more poverty than the general population.^[35] Fear of workplace discrimination, social exclusion, economic vulnerability, and lack of employment opportunities force them in the option of sex work. However, unwillingness towards sex work can psychologically put them under more mental stress. A study in Karnataka showed that most TG (86.6%) depend on sex work

Table: 1 Burden of psychiatric morbidity among Transgenders and other sexual minorities in India

	<i>Sample Size & Study Sample</i>	<i>Type of Study</i>	<i>Tool used to measure psychiatric morbidity</i>	<i>Burden of psychiatric morbidity</i>
Hani U and Pandiyan K. 2022 (10)	60 transgender	Cross sectional	MINI-Plus scale	76.6% had psychiatric morbidity, 16.7% depression, Dysthymia 6.6%, 5% had anxiety and 3.3% insomnia.
Halli et al., 2021 (11)	282, gender diverse individuals	Cross sectional study	Beck Depression Inventory (BDI-II)	63.2%, depression
Gomes de Jesus J et.al. 2020 (12)	23 transgender women from Hyderabad, India and 12 transgender women from Rio de Janeiro, Brazil.	mixed-methods, exploratory study	WHO-World Mental Health Composite International Diagnostic Interview (WHO WMHCIDI) - Suicidality (SD) subscale, FGD	Intimate partner violence-96%, Physical violence-61%, Suicidal thoughts-60.9%, lifetime suicide attempt-52.2%
Sharma and Subramanyam, 2020 (13)	296, Heterosexual and Homosexual individuals	Cross-sectional survey	Short version of CESD-D scale	Higher symptoms of depression ($\beta = 1.98$, CI: -0.46, 4.44)
Majumder A, Chatterjee S, Roy Chaudhuri S, Chakraborty S. 2021. (14)	120 transgenders	Observational study	Diagnostic and Statistical Manual of Mental Disorders (DSM-TR)	Anxiety/Depression-2.7% (Out of 80 who were evaluated)
Thompson et al. 2019 (15)	282 transgenders	Cross-sectional survey	The Hamilton Anxiety Scale (HAM-A),41 and the Beck Depression Inventory (BDI-II)	Mean depression and anxiety score was 8.5 ranging from 6.1 to 9.4 (95% CI)
Soohinda et al., 2019 (16)	277, MSM	Cross sectional Observational study	Centre for Epidemiologic studies Depression Scale revised (CESD_R)	58.8% depression
Virupaksha and Muralidhar, 2018 (3)	60, transgender	Descriptive research method	Connor-Davidson Resilience scale (CD-RISC)	Low score (59.30± 15.02912) in the resilience scale
Hebbar et al., 2018 (17)	12 lesbian and 20 Gay	Cross-sectional study	MiniInternational Neuropsychiatry InterviewPlus (MINIPlus) scale	25% current depression, 18.7% past history of depression, 18.7% anxiety disorders
Wilkerson et al., 2018 (18)	433, MSM	Cross-sectional study	Centre for Epidemiologic Studies Depression Scale (CESD-10)	58% depression
Soohinda et al., 2018 (19)	277, MSM	Cross-sectional observational study	Centre for Epidemiologic Studies Depression Scale Revised (CESDR)	Depression-13.36%, Anxiety 4.99% & bipolar disorder -1.44%
Hebbar and Singh, 2017(20)	20 Transwomen, and 10 Transmen	Cross-sectional study	Mini-International Neuropsychiatry Interview (MINI-PLUS) scale	31.2% depression, 37.55% generalized anxiety disorder (GAD), 31.2% past suicidal attempts
Chakrapani et al., 2017 (7)	600, (MSM=300; TG women=300)	Cross-sectional study	Beck's Depression Inventory – Fast Screen scale	MSM: 35.3% had moderate/severe depression and Transwomen: 42.7% moderate/severe depression
Oswal R M et al., 2017 (21)	50, MSM	cross-sectional study	Hamilton rating scale for depression (HAM-D)	Depression - 28%
Tomori et al., 2016 (22)	11,992, MSM	Clustered randomized trial, 31 FGDs & 121 in-depth interviews (IDIs)	Patient health Questionnaire-9 scale	11 % depression
Ekstrand et al., 2016 (23)	279, Gay & 123 Bisexual	Cross-sectional study	Centre for Epidemiologic Studies- Depression Scale	59.1% and 50.9% depression rates in GB men.
Patel et al., 2015 (24)	1176, MSM	Cross-sectional study	Patient health Questionnaire-2 scale	35% depression
Prajapati et al., 2014 (25)	410, MSM	cross-sectional study	General Health Questionnaire 28 (GHQ 28)	Overall psychiatric morbidity was found in 52.9%

Mimiaga et al., 2013 (26)	150, MSM	Cross-sectional study	Psychiatric diagnostic interviews and psychosocial and sexual risk assessments	28.7% depression, 14% social anxiety, 13.3% Obsessive-compulsive disorder
Logie et al., 2012 (27)	200 MSM (100 Urban & 100 Semi-Urban)	Cross-sectional study	Meyer's minority stress model	Urban area: Depression-79%, Semi-Urban: Depression 77%
Sivasubramanian et al., 2011 (28)	150, MSM	Cross-sectional study	Mini International Neuropsychiatric Interview (MINI) and Brief Symptom Inventory-18 for psychological distress	29% depression, 24% anxiety disorder & 45% suicidal
Safren et al., 2009 (29)	210, MSM	cross-sectional survey	Center for Epidemiologic Studies Depression Scale (CESD-20)	54.8% depression
Thomas et al., 2009 (30)	210, MSM	cross-sectional study	Center for Epidemiologic Studies Depression Scale (CES-D)	Clinically significant depression symptoms (AOR=2.8; p=.02)

or begging.^[3] Higher odds of depression were found in those, who are ever engaged in sex for money or other goods.^[29] Sex workers are affected the most during COVID-19 pandemic, due to control measures, social distancing and frequent lockdown ultimately affecting their financial needs severely.^[9] A financial plan specifically designed for the TG can help them maintain appropriate financial stability while lowering their out-of-pocket expenses. The 12th five-year plan recommends providing them access to improved housing, healthcare, employment opportunities, education, and financial assistance.^[36]

Judgmental Attitude Post “Coming Out”

Disclosing sexual orientation to others is known as “Coming Out”.^[37] Many people are reluctant in “Coming Out” because they worry that being outspoken about same-sex preference will have unfavorable consequences. Most parents in India deny their children are transsexuals. They think their children can't be going through this. The issue is accompanied by guilt. Many studies have documented individuals' experiences after coming out to family members; they have been viewed as a potential hindrance to their sibling marriage, the family response has been full of neglect, discrimination, and violence, and many of them have lost friends as a result of coming out.^[18,20,26]

Proper counseling by a trained counselor can help them in the process of ‘coming out’ without any fear of judgment. In India, family members also require counseling, particularly when “coming out” is met with opposition.^[38] Parents must also understand that their children are investigating and comprehending internal alterations. He or she may be going through an identity dilemma right now. Giving more stress to children would only add to the load. In Kerala one transgender confronted that because of the mental and financial support from her parents, it was easier to come out from the wrong body.

Disapproval for Same Sex Marriage

The family members are exasperated by the insistence on marrying a person of the same sex because there is a strong

expectation of opposite-sex marriage and subsequent progeny and refusal to marry is often seen as a sign of disrespect towards parents.^[28] Resistance toward opposite sex marriage has led them to multiple suicidal attempts.^[17] Desire to live openly with the person of their choice throw them into a world of internal conflict.^[24] These individuals learn to hide their emotions because they think our community and society do not take their hardships and sufferings seriously.^[3] Regardless of whether they chose to stay single due to personal reasons, family pressure, or societal pressure, those who were never married are more likely to experience depression, anxiety, and stress than their married transgender peers.^[29,36]

Physical & Sexual Violence

Violence against transsexual people has increased dramatically in recent years in India.

Violence itself can create an enormous amount of mental stress, irrespective of gender status. Transgender encounter more pressure and violence from their partners and other people they are emotionally connected.^[36] Exposure to emotional and physical violence is common for those who perform sex work for their livelihood. Several incidents have occurred when they were beaten up for refusing free sexual services.^[39] When they have no other option, they frequently agree to being physically and sexually mistreated in the end. They face a higher risk of developing mental health problems because they have been exposed to violence for longer.^[36,39]

Fear of Increased Ageism

Every individual requires care until the end of time. Fear of Ageism and homophobia gives depressive symptoms to this section of society. Loneliness and depression made them more vulnerable towards sexual, emotional, and social risks. Also, many of the sexually and societal acceptable roles get affected with advancing age.^[35] An online survey in India showed that almost 40% of queer participants were more than 45 years or older, and 20% of them hid their sexual identity from their spouses. Emerging evidence shows that there will be an expected increase from 900 million to 2 billion people over age of 60. This older queer's population have survived the era when

homophobias were looked upon as sexual deviant or pervert. Our heterosexist society must have always inhibited homosexual older adults in coming out or being counted.^[6]

Unavailability of Health insurance

Understanding their unique health needs for hormone therapy and sex change surgeries health insurance scheme is the need of hour. Due to their special gender status, they are often denied of a health insurance policy. Lack of health insurance facilities can hamper their willingness to access to the health care facility.^[29] For example, States like Tamil Nadu, Kerala have already introduced a transgender welfare policy under which free sex reassignment surgery (SRS) is possible in government hospitals.^[40] Odisha had become the first state in the country to give transgender people social welfare benefits such as pension, housing, and food grains.^[35] Therefore, insurance companies need to come with better and premium-based health insurance plans to meet transsexual people's needs.

CONCLUSION

Transgender people are at more risk for mental health problems than their heterogenous counterparts. During the literature review of several national and international articles, we came across various stressors that can affect this population's psychosocial health. Diagnosing mental health issues is challenging due to the stigma and taboo attached to it. It's a mammoth task to track and treat the psychological and behavioural problems which has occupied the major portion of the submerged iceberg.

Owing to the ongoing pandemic social isolation has aggravated symptoms like depression and anxiety. The intervention program to eliminate or reduce these problems needs to be planned carefully, considering all the determinants. As there is a saying charity begins at home similarly, the awareness and health education program should begin from the household level or community level. State Governments like Odisha has recognized the hardship of the transgenders and started an umbrella scheme called "Sweekruti". It is created to provide equality and justice to transgenders. One of the highlights of this scheme is pre & post-matric scholarships to transgender students of Odisha. Education is the only weapon to empower them. Madhya Pradesh has set a unique example by constructing community toilets for third gender. Other state governments also make conscious efforts to treat third genders equally and permit them to use the toilet facility of their choice in the community or public restrooms. There is a definite need to do more research to explore the mental health issues of LGBTQ in India.

RECOMMENDATION

Adoption of trans-inclusive curriculum changes for medical, dental nursing and pharmacy students and more of psychological research on gender and sexual minorities.

Need for proper policy implementation in lines of social welfare of elderly transgenders.

Community medicine and family medicine physicians can plan for more intervention studies in collaboration with medicine and psychiatry departments.

Gender-neutral toilets in all public & commercial establishments by the state government

School authorities can work to make the school more third-gender friendly.

Local NGOs, with the help of state government, can empower transgenders by giving free vocational training.

Special marriage act & safe surrogate policy should be seriously discussed by policy makers.

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There are no conflicts of interest.

REFERENCES

- Jaddidi S, Sharma G. Position of Transgender in Contemporary India: An Analytical Study. *International Journal of Law Management & Humanities*. 2021; 4(2):2754-68.
- Srinivasan SP, Chandrasekaran S. Transsexualism in Hindu Mythology. *Indian J Endocrinol Metab*. 2020; 24(3):235.
- Virupaksha HG, Muralidhar D. Resilience among transgender persons: Indian perspective. *Indian J Soc Psychiatry*. 2018;34(2):111.
- Sawant N. Transgender: Status in India. *Annals of Indian Psychiatry*. 2017;1(2):59.
- TransGender/Others - Census 2011 India [Internet]. [cited 2023 Mar 11]. Available from: <https://www.census2011.co.in/transgender.php>
- Sharma AJ, Subramanyam MA. Psychological wellbeing of middle-aged and older queer men in India: A mixed-methods approach. *PLoS One*. 2020; 15(3).
- Chakrapani V, Newman PA, Shunmugam M, Logie CH, Samuel M. Syndemics of depression, alcohol use, and victimisation, and their association with HIV-related sexual risk among men who have sex with men and transgender women in India. *Glob Public Health*. 2017; 12(2):250-65.
- Saraswathi A, Praveen Prakash A, Professor A. To analyze the problems of Transgender in India/Study Using New Triangular Combined Block Fuzzy Cognitive Maps (TrCBFCM). *Int J Sci Eng Res*. 2015;6(3).
- Pandya A, Redcay A. Impact of COVID-19 on Transgender Women and Hijra: Insights from Gujarat, India. *J Hum Rights Soc Work*. 2022 Jun 1;7(2):148-57.
- Hani U, Pandiyan K. Psychiatric Morbidity among Transgender Population: A Study in a Rural Area of Bengaluru. *Indian Journal of Private Psychiatry*. 2022 Mar 16; 16(1):10-3.

11. Halli SS, Isac S, Bhattacharjee P, Dutta S, Ramesh BM, Lorway R, et al. Suicidality among gender minorities in Karnataka, South India. *BMC Psychiatry* . 2021;21(1):1–10.
12. Gomes de Jesus J, Belden CM, Huynh H V., Malta M, LeGrand S, Kaza VGK, et al. Mental health and challenges of transgender women: A qualitative study in Brazil and India. *Int J Transgend Health*. 2020 Oct 10;21(4):418–30.
13. Sharma AJ, Subramanyam MA. A cross-sectional study of psychological wellbeing of Indian adults during the Covid-19 lockdown: Different strokes for different folks. *PLoS One* 2020;15(9).
14. Majumder A, Chatterjee S, Chaudhuri S, Chakraborty S. Lives of Gender Incongruent Community: An Indian Subset Chants 'All is Well'. *Indian J Endocrinol Metab*. 2020 ; 24(6):525–31.
15. Thompson LH, Dutta S, Bhattacharjee P, Leung S, Bhowmik A, Prakash R, et al. Violence and Mental Health among Gender-Diverse Individuals Enrolled in a Human Immunodeficiency Virus Program in Karnataka, South India. *Transgend Health*. 2019; 4(1):316–25.
16. Soohinda G, Singh JP, in Indian men who use online Sampath H, Dutta S. Self-reported sexual orientation, relationships pattern, social connectedness, disclosure, and self-esteem gay dating website. *Open Journal of Psychiatry & Allied Sciences*. 2019; 10(1):37.
17. Hebbar YN, Majumder U, Singh RL. A study on homosexuals and their psychiatric morbidities in a northeastern state of India, Manipur. *Indian J Soc Psychiatry*. 2018; 34(3):245.
18. Wilkerson JM, Di Paola A, Rawat S, Patankar P, Simon Rosser BR, Ekstrand ML. Substance use, mental health, HIV testing, and sexual risk behavior among men who have sex with men in the state of Maharashtra, India. *AIDS Educ Prev* .2018; 30(2):96.
19. Soohinda GS, Jaggi PS, Sampath H, Dutta S. Depression and its correlates in men who have sex with men (MSM) in India. *Indian J Soc Psychiatry*. 2018; 34(3):239.
20. Hebbar YRN, Singh B. Psychiatric morbidity in a selective sample of transgender in Imphal, Manipur: A descriptive study. *Annals of Indian Psychiatry*. 2017 ;1(2):114.
21. Oswal R M, Patel FM, Rathor DM, Dave K R, Mehta R Y. Depression and its correlates in men who have sex with men attending a community based organization. *Int J Med Res*.2017; 4(1):17-22.
22. Tomori C, McFall AM, Srikrishnan AK, Mehta SH, Solomon SS, Anand S, et al. Diverse Rates of Depression Among Men Who Have Sex with Men (MSM) Across India: Insights from a Multi-site Mixed Method Study. *AIDS Behav* . 2016; 20(2):304–16.
23. Ekstrand ML, Rawat S, Patankar P, Heylen E, Banu A, Rosser BRS, et al. Sexual identity and behaviour in an online sample of Indian men who have sex with men. *AIDS Care*.2017;29(7):905- 913.
24. Patel SK, Prabhakar P, Saggurti N. Factors Associated with Mental Depression among Men Who Have Sex with Men in Southern India. *Health N*. 2015; 7(9):1114–23.
25. Prajapati A, Parikh S, Bala D. A study of mental health status of men who have sex with men in Ahmedabad city. *Indian J Psychiatry*. 2014; 56(2):161.
26. Mimiaga MJ, Biello KB, Sivasubramanian M, Mayer KH, Anand VR, Safren SA. Psychosocial risk factors for HIV sexual risk among Indian men who have sex with men. *AIDS Care*. 2013; 25(9):1109–13.
27. Logie CH, Newman PA, Chakrapani V, Shunmugam M. Adapting the minority stress model: associations between gender non-conformity stigma, HIV-related stigma and depression among men who have sex with men in South India. *Soc Sci Med [Internet]*. 2012 ;74(8):1261–8.
28. Sivasubramanian M, Mimiaga MJ, Mayer KH, Anand VR, Johnson C V., Prabhugate P, et al. Suicidality, clinical depression, and anxiety disorders are highly prevalent in men who have sex with men in Mumbai, India: Findings from a community-recruited sample. *Psychol Health Med*. 2011; 16(4):450–62.
29. Safren SA, Thomas BE, Mimiaga MJ, Chandrasekaran V, Menon S, Swaminathan S, et al. Depressive symptoms and human immunodeficiency virus risk behavior among men who have sex with men in Chennai, India. *Psychol Health Med*. 2009 ;14(6):705–15.
30. Thomas b, Mimiaga mj, Menon S, Chandrasekaran v, Murugesan P, Swaminathan S, et al. unseen and unheard: predictors of sexual risk behavior and hiv infection among men who have sex with men in chennai, india. *Aids Educ Prev*. 2009 ;21(4):372.
31. Feldman J, Brown GR, Deutsch MB, Hembree W, Meyer W, Meyer-Bahlburg HFL, et al. Priorities for transgender medical and healthcare research. *Curr Opin Endocrinol Diabetes Obes* . 2016;23(2):180–7.
32. Venkataraman S, Patil R, Balasundaram S. Why mental health literacy still matters: a review. *Int J Community Med Public Health*. 2019; 6(6):2723-29
33. Sun S, Pachankis JE, Li X, Operario D. Addressing Minority Stress and Mental Health among Men Who Have Sex with Men (MSM) in China. *Current HIV/AIDS Reports*. 2020: 35–62.
34. Wandrekar JR, Nigudkar AS. What Do We Know About LGBTQIA+ Mental Health in India? A Review of Research From 2009 to 2019. *Journal of Psychosexual health*. 2020; 2(1):26–36.
35. Martinez-Velez JJ, Melin K, Rodriguez-Diaz CE. A Preliminary Assessment of Selected Social Determinants of Health in a Sample of Transgender and Gender Nonconforming Individuals in Puerto Rico. *Transgend Health*. 2019 ;4(1):9–17.
36. Hotchandani K. Problems of transgender in India: A study from social exclusion to social inclusion. *International Research Journal of Human Resources and Social Sciences*. 2017; 4(4): 73-79.
37. Kalra G. A psychiatrist's role in 'coming out' process: Context and controversies post-377. Vol. 54, *Indian Journal of Psychiatry*. 2012. p. 69–72.
38. Mustanski B, Garofalo R, Herrick A, Donenberg G. Psychosocial health problems increase risk for HIV among urban young men who have sex with men: Preliminary evidence of a syndemic in need of attention. *Ann Behav Med*. 2007 ;34(1):37.
39. Ganju D, Saggurti N. Stigma, violence and HIV vulnerability among transgender persons in sex work in Maharashtra, India. *Cult Health Sex*. 2017;19(8):903–17.
40. Sharma H. Are we being trained to discriminate? Need to sensitize doctors in India on issues of gender and sexuality. *Research and Humanities in Medical Education*. 2018; 5:35-43