Assessment of 'Transgender identity stigma' scale among Indian male-to-female transgender people

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Introduction

Sexual minority stigma has been shown to influence mental health (Lewis, 2009; Meyer, 1997 & 2003; Mustanski, Garofalo & Emerson, 2010) and sexual risk.

Trans people across the world experience health disparities associated with pervasive stigma. Despite that, only limited investigations have measured stigma related to transgender (TG) identity using validated scales (Sugano et al., 2006; Walch et al., 2012).

We adapted a 11-item 'exposure to transphobia' scale (Sugano et al., 2006) to the Indian context by adding three more items, and tested this 14-item 'transgender identity stigma' scale (**TGISS**) among Indian male-to-female (MtF) TG people. [Note: Sugano et al.'s 2006 scale was in turn modified from the homophobia scale of Diaz et al., 2001]

The objective of this analysis was to assess the reliability and dimensionality (component structure) of TGISS.

Materials and Methods

Data were collected in a cross-sectional survey conducted among a convenience sample of 300 MtF TG people from 3 urban and 3 semi-urban sites.

The TGISS consisted of self-reported ratings on 14 items (e.g., 'heard TG people are not normal'; 'felt family is hurt by my identity') (See Table 1).

We conducted principal components analysis (PCA), with direct oblimin rotation, to extract factors (Criteria for extraction: eigenvalue >1 and visual inspection of Scree plots).

Reliability analysis was evaluated using item-total correlations and internal consistency (Cronbach's alpha coefficient).

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Results

Sociodemographic characteristics:
About two-fifths were from urban sites (67%; n=200) and the remaining from semi-urban sites (33%; n=100). Mean age = 29.5 years (SD: 7.8). Median monthly income = INR 6000 (~120 USD). Self-identification as: *Hijra* = 66.7% (n=200), 'Transgender' (English term) = 25% (n=74), and *Jogta* = 8% (n=25). More than two-thirds (70.7%; n=212) reported being paid for sex in the previous three months.

Descriptive statistics of TGISS:
Mean overall score = 38.65 (SD: 7.16), Median score = 39.50. Variance = 51.37, Range = 19-56. Scale item frequencies are presented in Table 1.

Dimesionality analysis:
In the PCA, 49% of the total variance was explained by three extracted components: perceived stigma (7 items), enacted stigma (5 items), and consequences of disclosure of TG identity (2 items). All the items in the respective components had high loadings ($\geq$.50), with no cross-loadings. The various indicators of component structure were good: KMO=.78 and Bartlett's test of sphericity: Chi-Square=1080.15, df=91, p<.001.

Reliability analysis:
Cronbach's alpha was good (.74) for the whole sample. Six items had a weak item-total correlation (<.30), and eight items a strong correlation (.41 to .59). Cronbach's alpha increased each time an item with loading of <.30 (e.g., 'blackmailing') was deleted, which means those items may not be useful for measuring stigma this population. However, all the items were retained. In split-half reliability analysis, Cronbach's alpha coefficient for part 1 = .72 and part 2 = .61.

Table 1. Transgender identity stigma scale: Item frequencies (n=300)

Conclusions

• TGISS has adequate psychometric properties to measure stigma faced by MtF TG people in India.
• Adding and testing items to assess internalised stigma related to TG identity will make this scale more comprehensive.
• As nearly two-thirds of hijras/TG in this sample engaged in sex work, we could not differentiate stigma due to transgender identity from stigma due to engagement in sex work. Future research needs to consider this complexity (intersectional stigma) in developing and refining transgender-identity stigma measurement scales.
• Understanding the various dimensions of TG stigma and developing validated scales to measure TG stigma will help in designing and evaluating multi-level stigma reduction interventions among diverse groups, and in eventually decreasing health disparities among transgender people.