INFLUENCE OF SEXUAL MINORITY STIGMA AND HIV-RELATED STIGMA ON MENTAL HEALTH: TESTING THE MINORITY STRESS MODEL AMONG MEN WHO HAVE SEX WITH MEN IN INDIA

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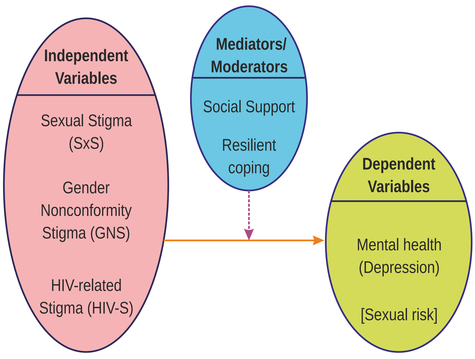
Background

- We adapted Meyer´s minority stress model to examine the influence of sexual stigma (SxS)/gender non-conformity stigma (GNS) and HIV-related stigma (HIV-S: vicarious, felt normative, enacted and internalised) on depression among men who have sex with men (MSM) in India.
- We hypothesised that resilient coping and social support would act as moderators and/or mediators.

Diagram 1. Testing a modified minority stress model



Results

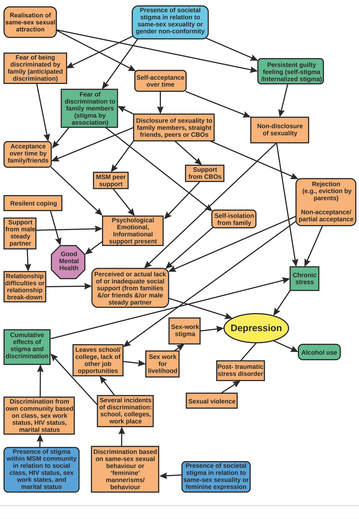
SURVEY FINDINGS

- Participants' mean age was 30 (SD 8.4). 47% have completed high school and 17% completed college degree. 40% were married. 10% self-reported being HIV-positive. 38% reported sex in exchange of money in the past 3 months.
- A significant proportion of participants reported moderate (21%) or severe (15%) depression scores (Mean-5.12, SD-4.1); and moderate (55%; n=113/205) or severe (7%;n=15/205) GNS; and 12% (n=11/95) moderate sexual stigma scores.
- Hierarchical regression analyses (Table 1) revealed that SxS/GNS and HIV-S subscales (vicarious and felt normative stigma subscales) accounted for a significant amount of variance in overall depression scores. SxS/GNS and HIV-related vicarious and felt normative stigmas were significant correlates. Social support and resilient coping were entered together in the next step and explained a further 10% of the variance in depression scores. Social support and resilient coping were significant correlates. The final model accounted for a significant amount of variance in overall depression scores (adjusted R2= 0.39).
- Overall, thus, **depression was associated with higher levels of SxS/GNS and felt normative and vicarious HIV-related stigma, and lower levels of social support and resilient coping.**
- Addition of interaction terms (not shown) as block 3 did not for significant variance in depression, and none of the interactions terms were significant. Thus, in this sample, social support and resilient coping were not found to be moderators.

QUALITATIVE FINDINGS

Qualitative findings helped to better understand the mechanisms of how stigma influences mental health: societal stigma contributed to internalised homophobia; discriminatory incidents based on sexuality or HIV-positive status seemed to have a cumulative effect on the mental health - resulting in depression and alcohol use; and HIV-positive self-identified MSM believed that they became HIV-positive because of their sexuality, which further heightened their internalised homophobia.

PATHWAYS BY WHICH STIGMA INFLUENCES MENTAL HEALTH OF MSM



Methods

- We used sequential explanatory mixed methods design.
- Phase 1: A cross-sectional survey was administered to 300 MSM recruited from 3 urban (Mumbai, Delhi and Kolkata) and 3 rural (Sangli, Kancheepuram and Kumbakonam) sites. Hierarchical block regression analyses were conducted to measure associations between independent (SxS/GNS and HIVS as block 1), mediators/moderators (resilient coping and social support - block 2) and dependent (depression) variables.
- Phase 2: We conducted qualitative in-depth interviews among 10 confirming cases and 10 disconfirming cases from the survey sample, and analysed the data using constant comparison and 'process tracing' techniques.
- Scales used in the survey questionnaire:
  - Sexual stigma scale and Gender non-conformity stigma scale – both adapted from China MSM Stigma Scale (Neilands, Steward & Choi, 2008)
  - HIV-related stigma scale of Steward et al., 2008, with minor modifications
  - Brief Resilient Coping Scale (Sinclair & Wallston, 2004)
  - Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet et al.,1988)
  - Beck Depression Inventory Fast-Screen (BDI-FS) (Beck, Guth, Steer, & Ball, 1997).

Table 1. Hierarchical Multiple Linear Regression Analyses Predicting Depression Among MSM (n=300) from Different Types Of Stigma

	Model 1				Model 2			
Block variables	B	SE B	β	t	B	SE B	β	t
Block: Stigma								
Sexual stigma/Gender non-conformity stigma	0.23	0.02	0.48	8.79***	0.16	0.02	0.34	6.27***
HIV-S: Vicarious	-0.13	0.03	-0.23	-3.85***	-0.16	0.03	-0.26	-4.81***
HIV-S: Felt Normative	0.14	0.03	0.28	4.73***	0.15	0.02	0.28	5.20***
Block: Coping								
Social Support					-0.07	0.02	-0.17	-2.96**
Resilient coping					-0.35	0.08	-0.24	-4.13***
R2				0.31				0.41
Adjusted R2				0.29				0.39
Change in R2				0.25				0.10
F for change in R2				35.75***				25.70***

Note. HIV-S = HIV-related Stigma. Sociodemographic variables were entered as control variables (not shown).
**p < .01. ***p<.001

Conclusion and Recommendations

- The study findings are consistent with our adapted minority stress model that both sexual minority stigma and HIV-related stigma influence mental health of MSM.
- Findings may inform inclusion of multi-level stigma reduction measures within existing HIV prevention and care interventions for MSM in India.
- Some of the steps that can be taken include:
  - Educating and sensitizing the general public and other stakeholders (health care providers) on sexual minority issues to decrease societal stigma and promote acceptance of MSM
  - Providing counselling on mental health issues and mental health referral services to MSM through HIV prevention interventions of the government and other partner agencies
  - Decreasing discrimination faced by MSM in various settings – health care settings, workplace, and educational institutions
  - Promoting self-acceptance (i.e., decreasing or eliminating self-stigma or internalised homophobia)
  - Strengthening social support networks of MSM: strengthening MSM communities and promoting acceptance among family members.