

Characterizing the Burden of HIV and Specific Vulnerabilities among Transgender Women compared to Men who have Sex with Men across Eight Sub-Saharan African Countries

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Outline

- 1 Background
- 2 Methods
 - Data Collection
 - Statistical Analysis
- 3 Results
 - Proportion of Trans Participants
 - Discrimination Prevalence
 - HIV Risk
- 4 Discussion
 - Limitations
 - Conclusion



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Background

- Transgender women around the world experience a disproportionate burden of HIV
 - 19% prevalence according to meta-analysis of 15 countries (*none in Africa*)
 - 49 times greater odds of HIV infection compared to cis-gender adults (Baral et al, 2013)
- HIV data often fail to distinguish unique risks between MSM and trans women (Poteat et al, 2016)
- Only one study published on lab-confirmed HIV among trans women in three West African countries (Stahlman et al, 2016)
 - No reported data on HIV infection and associated risk factors in eastern or southern Africa



Research Aim

To evaluate differences in discrimination, sexual risk behavior and HIV prevalence between trans women and men who have sex with men (MSM) in eight Sub-Saharan African countries: Burkina Faso, Côte d'Ivoire, The Gambia, Lesotho, Malawi, Senegal, Swaziland and Togo.



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Data Collection

Recruitment

- Limited to individuals assigned male sex at birth, age 15+, and have had sex with a male partner in the past 12 months

Information collected

- In-person surveys with the following domains: (1) sexual orientation and gender identity, (2) discrimination, (3) mental health, (4) drug and alcohol use, (5) sexual behavior and (6) engagement in HIV-related treatment and care
- Laboratory-confirmed HIV tests



Data Collection

Data Merging

- Different surveys administered by country, merged according to question availability
- Several questions dichotomized to preserve consistency across responses
- Trans participants were those who self-identified as female, transgender, or other

			Age	Employment	Sexual Orientation	Gender	Transgender?
Malawi	Question #	site	q1_00	q1_03	q1_12	q1_13	NA
Lesotho	Question #	site	qa	q1_13	q1_19	q1_17	q1_18
Burkina	Question #	site	eliga	q1_3	q1_15	q1_14	NA
Gambia	Question #	site	q1_01	q1_04	q1_13	q1_14	NA
Togo	Question #	site	eliga	q1_3	q1_15	q1_14	NA
Senegal	Question #	site	hrv1q14	hrv1q1_3	hrv1q1_25	hrv1q1_24	NA
CDI	Question #	site	qa	q1_3	q1_16	q1_15	NA
Swaziland	Question #	site	q1_00	q1_04	q1_13_1	q1_14	NA



Statistical Analysis

- Student's T-tests to compare proportions of responses between MSM and trans groups
- Exploratory Factor Analysis to summarize discrimination variables in three scales (to be used as covariates in modeling)
- Multivariable Mixed Logistic Regression to estimate relative odds of HIV for trans women compared to MSM with a random intercept by study site



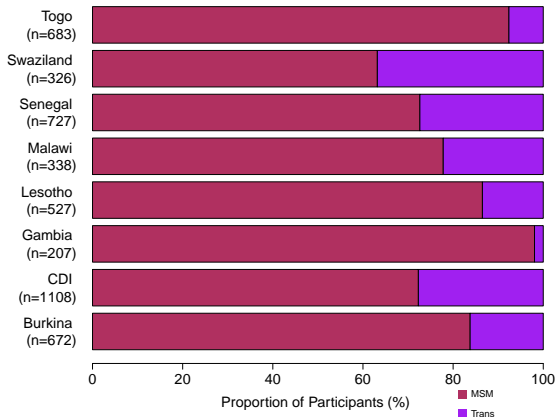
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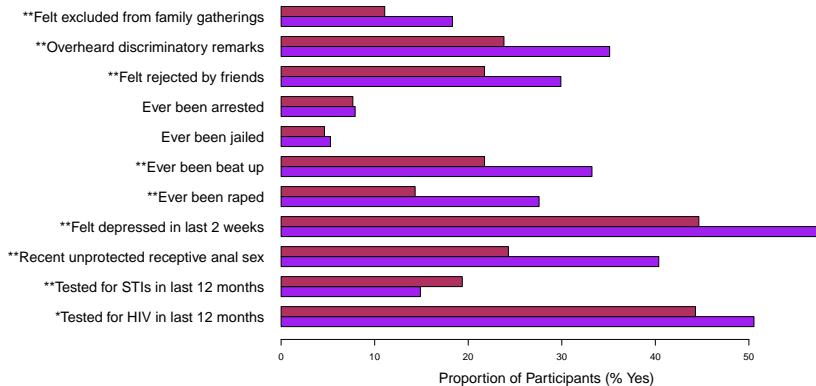


Proportion of Trans Participants by Country

- 4586 participants (20.4% trans women, 79.6% MSM)



Differences in Discrimination by Gender



* $p < 0.05$

** $p < 0.001$



Discrimination Factor Loadings

Items	Factor 1	Factor 2	Factor 3
Interpersonal ($\alpha = 0.66$)			
Excluded from family gatherings	0.91	0.17	0.17
Overheard discriminatory remarks	0.87	0.03	0.32
Felt rejected by friends	0.68	0.07	0.02
Law Enforcement ($\alpha = 0.46$)			
Arrested	0.01	0.77	0.39
Jailed	0.14	0.85	0.05
Violence ($\alpha = 0.31$)			
Beat up	0.17	0.02	0.58
Raped	0.07	0.12	0.52

- Factor scores included as covariates in HIV risk modeling



Modeling Odds of HIV by Gender

Table: HIV Test Results by Gender

	HIV -	HIV +
MSM	3089 (86%)	505 (14%)
Trans	691	235
Women	(75%)	(25%)

Table: Regression Results: Estimated Odds of HIV Infection by Gender

	OR	95% CI	P-value
Crude	1.81	(1.49-2.20)	1.33×10^{-9}
Adjusted*	1.60	(1.28-2.00)	3.17×10^{-5}

* Adjusted for age, discrimination factors, depression and unprotected receptive anal sex



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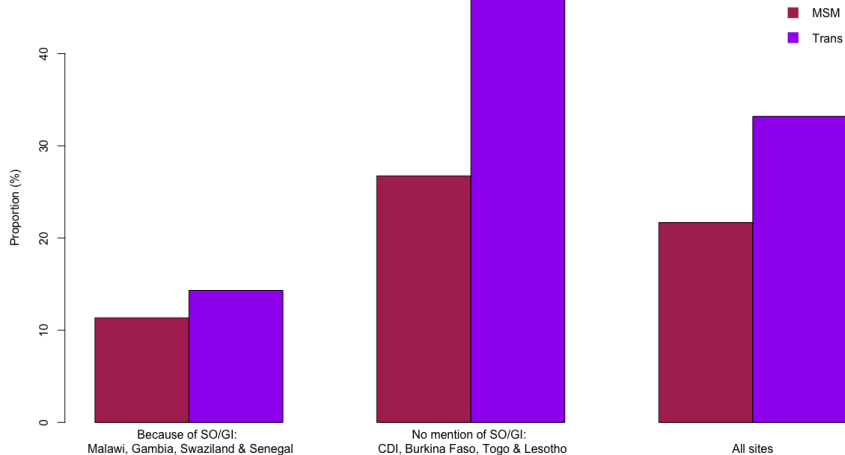
Limitations

- Potential under-estimation among survey responses due to data merging
 - Some countries asked if discriminatory events occurred due to sexual orientation or gender identity, others did not
 - Some countries asked about sexual history over the prior 12 months, others asked over the past 30 days
- Surveys were tailored by country according to cultural norms
 - Surveys administered in different years with different practices of asking about SO/GI
- Results do not generalize to all of Sub-Saharan Africa



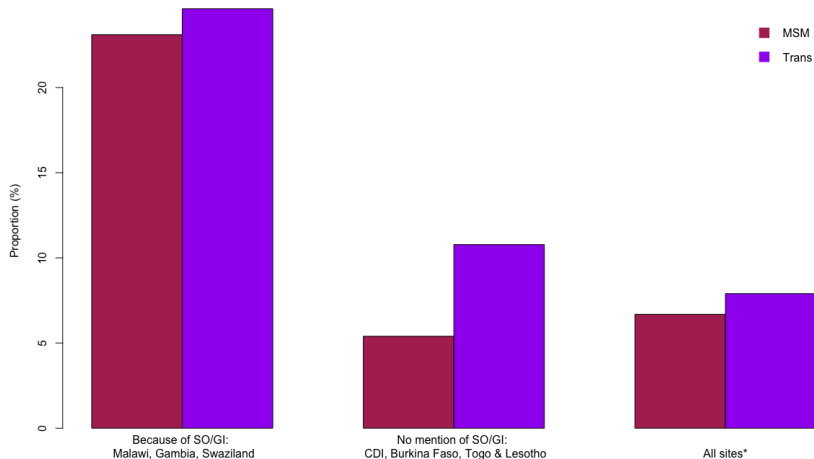
Sensitivity Analysis

Proportion of Participants who Reported Having Been Beat Up



Sensitivity Analysis

Proportion of Participants who Reported Experiencing Torture



* Senegal survey did not ask about experiencing torture



Conclusion

- While proportion of transgender women (20.4%) varied by country, data suggest that large proportion of recruited participants believed to be MSM do not actually identify as male
- Results indicate a need for transgender-specific HIV research and programs.
 - After adjusting for age, discrimination factors, depression and unprotected receptive anal sex, trans women had 60% increased odds of HIV infection than those for MSM
 - Trans women reported significantly greater amounts of discrimination and harassment from friends and family, as well as depression and abuse, than MSM
- Further work needed to effectively and consistently measure outcomes in MSM/trans populations in Sub-Saharan Africa



References


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Thank you!

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