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Suicide Risk among LGBT+ Individuals

Facts, Explanatory Models, and Prevention

Martin Plöderl, PhD

6th Vilnius Conference on Suicide Intervention Methods
November 26, 2022



Lesbian, **G**ay, **B**isexual, **T**rans(gender)

+ other sexual and gender minorities

Papa,
what is gay?

Ask Daddy!



www.a-cartoon.de

Sexual Minorities – It's about Sexuality & Sexual Orientation

- Dimensions of sexual orientation
 - Identity
 - Behavior
 - Psychological
- No perfect overlap of dimensions
- Sexual minority: other than exclusively heterosexual
- Limitation: binary definition of gender!
Alternative: attraction towards
 - women/feminine: gynephilic
 - men/masculine: androphilic
 - both/not relevant: pansexual



Trans – It's about Gender Identity / Expression

- Gender identity different from sex assigned at birth
- Gender nonconforming
- Cross Dresser



Inter – It's about Biological Sex

- How to define biological sex?

	Female	Male	Inter
■ Chromosomes	XX	XY	X, XXY
■ Genitals	Clitoris	Penis,	Penis or clitoris?
■ Gonads	Ovaries	Testis	e.g. Ovotestis
■ Hormones			e.g. AIS

- Inter: no (stereo)typical female/male biological sex
- Nature has more to offer than two sexes!
- Medicine: “disorders of sex development”
Activists: “diversity/differences of sex development”
- Genital surgeries



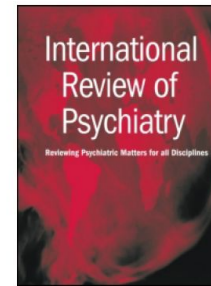
Women with AIS, <https://commons.wikimedia.org/wiki/File:Orchids01.JPG>

Suicide Risk among LGBT+

- Before 1995: samples only from gay communities
- Innovations in past 25 years
 - Representative population/random samples
 - Matched control groups (siblings, twins)
 - Prospective studies
- Methodological challenges remain
 - LGBT+ as “hidden population”
 - Both LGBT+ and suicides as rare events

Review Mental Health & Suicidality among LGB Individuals

- Systematic PubMed review, 199 population based studies
- Elevated risk for suicides and suicide attempts
 - in nearly all studies (compared to heterosexuals)
 - large effect size (OR > 3.5)
 - in recent studies
 - in higher quality studies
 - across regions
 - for both men and women
 - for adolescents and adults
 - for all subgroups (bisexual > homosexual)
 - for all dimensions (identity, behavior, attraction)
 - lifetime and past year suicide attempts



International Review of Psychiatry

ISSN: 0954-0261 (Print) 1369-1627 (Online) Journal homepage: <http://www.tandfonline.com/loi/iirp20>

Mental health of sexual minorities. A systematic review

Martin Plöderl & Pierre Tremblay

Challenge of Estimating the Risk for Suicide Deaths

■ Psychological autopsy studies

- LGB overrepresented (contrary to previous claims)
- Validity?

■ Linking registers

- Marriage – deaths (Denmark/Sweden)

(Erlangsen et al., 2019 <https://jech.bmj.com/content/74/1/78>)

1989 – 2002: RR 2.3 (1.9 - 4.0)

2003 – 2016: RR 1.5 (1.2 - 1.9)

Biases: marriage & health, proportion of married

- Population based studies – deaths

	men	women
■ GSS:	OR 1.4 (0.4-4.6)	OR 4.4 (1.0-19.5)*
■ Add Health:	OR 0.5 (0.1-3.5)	to few cases
■ NHANES	OR 1.5 (0.5-4.6)	OR 2.4 (1.0-5.6)*

Cochran et al. 2016 <https://ajph.aphapublications.org/doi/full/10.2105/AJPH.2016.303052>

Feigelman et al. 2020 <https://econtent.hogrefe.com/doi/10.1027/0227-5910/a000626>

Arch Sex Behav
DOI 10.1007/s10508-012-0056-y

ORIGINAL PAPER

Suicide Risk and Sexual Orientation: A Critical Review

Martin Plöderl · Eric-Jan Wagenmakers · Pierre Tremblay ·
Richard Ramsay · Karl Kralovec · Clemens Fartacek ·
Reinhold Fartacek

Short Report

Research Note on Whether Sexual Minority Individuals Are Over-Represented Among Suicide's Casualties

William Feigelman¹, Martin Plöderl², Zohn Rosen³, and Julie Cerel⁴

Trans and Suicide Risk

- Trans > LGB > heterosexual/cisgender <http://people.ucalgary.ca/~ramsay/transgender-transsexual-suicide-studies-world.htm>

- Few random samples

% lifetime/past year suicide attempts

Trans	LGB	heterosexual/cisgender	
38	17-20	8	Liu et al. 2019, US College students https://onlinelibrary.wiley.com/doi/10.1002/da.22830
28-51		14	Toomey et al. 2018, US adolescents https://doi.org/10.1542/peds.2017-4218
20		4	Clark et al. 2014, New Zealand Adolescents http://dx.doi.org/10.1016/j.jadohealth.2013.11.008
3	7-17	2	Espelage 2014, US High School students http://edr.sagepub.com/content/40/7/315
2		0-1	Branstrom & Pachankis (in press), Sweden, adults

- FtM 51% > Nonbinary 42% > MtF 30% > Questioning 28% (Toomey et al. 2018)
- Improvement after affirming medical interventions (Dhejne et al. 2016 <http://dx.doi.org/10.3109/09540261.2015.1115753>)
- But elevated risk remains
Suicides per 100,000: 43 MtF, 34 FtM, 15 men, 7 women (Wiepjes et a. 2020, Amsterdam Cohort Study)

Inter and Suicide Risk

- Sparse data, mostly clinical settings
- Increased rates of suicide ideation/attempts
Schutzmann et al. (2009), Wisniewski & Mazur, (2009), Plöderl et al. (2018)
- Exception: People with CAH who lived in the female role (Engberg et al., 2015)
- More suicide ideation among those with gonadectomy than those without (61 vs. 23%)
Schutzmann et al. (2009).

Most LGBT+ do NOT Attempt Suicide!

- Meta-analysis, adults, lifetime-suicide attempt (Hottes et al. 2016)
- Heterosexuals: 4%
- LGB:
 - 11% population survey
 - 20% community survey
- **80-89% Never attempted suicide!**

Hottes et al. (2016) Lifetime Prevalence of Suicide Attempts Among Sexual Minority Adults by Study Sampling Strategies: A Systematic Review and Meta-Analysis. *Am J Public Health*

COVID-19 Pandemic – Larger Impact on LGBT+

- Young men, Switzerland
- Before / during pandemic

Marmet et al. (2021)
doi: 10.3389/fpubh.2021.692884

TABLE 3 | Sexual orientation [sexual minority vs. heterosexual (ref.)] as a predictor of the crisis' psychological impact and its impact on substance use and addictive behaviors.

	Without baseline adjustment		With baseline adjustment (i.e., for pre-COVID-19 levels)	
	Heterosexual (n = 2,035)	Sexual minority (n = 310) b [95% CI]	Heterosexual (n = 2,035)	Sexual minority (n = 310) b [95% CI]
Consequences mentioning the COVID-19 pandemic as a cause (measured during COVID-19 only)				
Psychological impact				
Psychological trauma	Ref.	0.37 [0.25, 0.49]		n.a.
Fear	Ref.	0.18 [0.06, 0.30]		n.a.
Isolation	Ref.	0.32 [0.20, 0.44]		n.a.
Consequences not mentioning COVID-19 as a cause (measured before and during COVID-19)				
Psychological impact				
Depression	Ref.	0.47 [0.35, 0.59]	Ref.	0.31 [0.20, 0.41]
Perceived stress	Ref.	0.21 [0.09, 0.33]	Ref.	0.10 [−0.01, 0.20]
Sleep quality	Ref.	−0.19 [−0.31, −0.07]	Ref.	−0.13 [−0.24, −0.02]
Substance use				
Alcohol quantity	Ref.	0.09 [−0.03, 0.21]	Ref.	0.06 [−0.03, 0.15]
Number of cigarettes	Ref.	0.15 [0.03, 0.27]	Ref.	−0.01 [−0.08, 0.06]
Cannabis use frequency	Ref.	0.26 [0.14, 0.38]	Ref.	0.01 [−0.06, 0.08]
Addictive behaviors				
Gaming	Ref.	0.09 [−0.03, 0.21]	Ref.	0.07 [−0.03, 0.18]
Watching TV series	Ref.	0.15 [0.03, 0.27]	Ref.	0.10 [−0.01, 0.21]
Internet sex	Ref.	0.35 [0.23, 0.47]	Ref.	0.10 [0.00, 0.20]

Outcomes were z-standardized, and coefficients correspond to the difference between sexual minority and heterosexual men in standard deviations of the respective outcome. Bold coefficients are statistically significant at $p < 0.05$. All models were adjusted for age and linguistic region. n.a., no baseline measure available.

COVID-19 Pandemic – Larger Impact on LGBT+

- USA national sample, adults
- April/May 2020
- Plus retrospective questions

Fish et al (2021)
doi: 10.1089/lgbt.2020.0489

TABLE 2. SEXUAL IDENTITY DIFFERENCES IN INDICATORS OF WELL-BEING PRE- AND POSTPANDEMIC ONSET

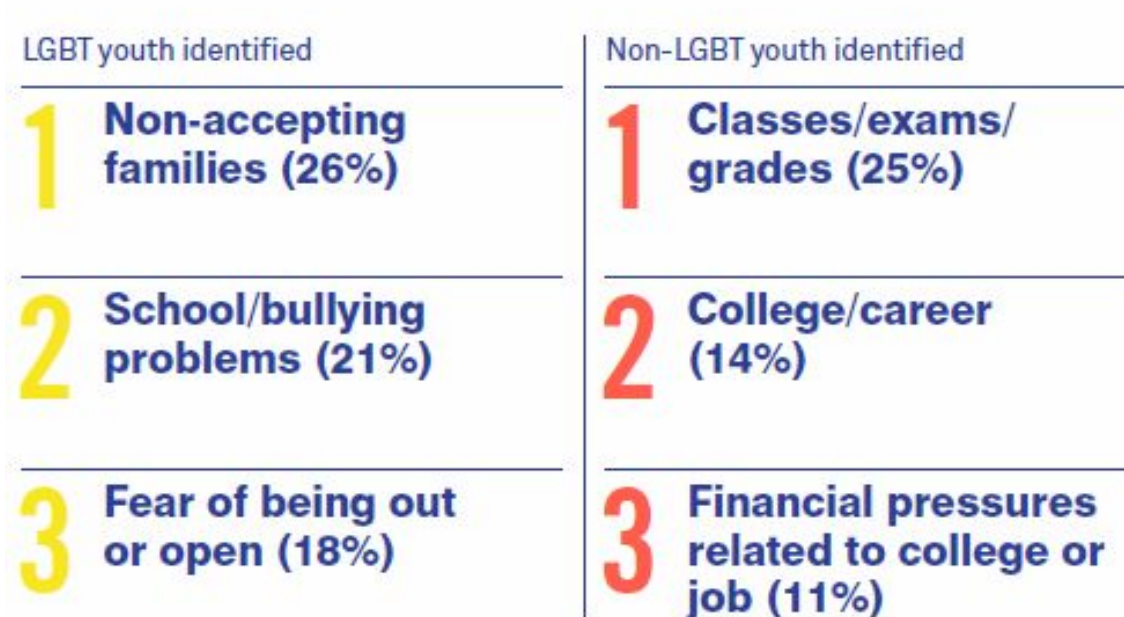
	<i>All</i>				<i>Men</i>				<i>Women</i>			
	<i>Pre-</i>		<i>Post-</i>		<i>Pre-</i>		<i>Post-</i>		<i>Pre-</i>		<i>Post-</i>	
	b	p	b	p	b	p	b	p	b	p	b	p
Mental health												
Lesbian/gay	-0.09	0.359	-0.21	0.047	-0.43	0.006	-0.36	0.029	0.15	0.242	-0.08	0.557
Bisexual	-0.42	<0.001	-0.41	-0.410	-0.39	0.001	-0.46	<0.001	-0.41	<0.001	-0.38	<0.001
Other	-0.36	0.002	-0.32	-0.320	-0.70	0.002	-0.19	0.395	-0.20	0.131	-0.34	0.015
Physical health												
Lesbian/gay	-0.09	0.320	-0.13	0.175	-0.29	0.046	-0.26	0.097	0.06	0.650	-0.03	0.813
Bisexual	-0.30	<0.001	-0.32	-0.320	-0.35	0.002	-0.25	0.032	-0.27	<0.001	-0.34	<0.001
Other	-0.45	<0.001	-0.48	-0.480	-0.60	0.002	-0.46	0.032	-0.40	0.003	-0.48	<0.001
Quality of life												
Lesbian/gay	-0.23	0.006	-0.17	0.055	-0.33	0.013	-0.24	0.096	-0.16	0.140	-0.10	0.371
Bisexual	-0.29	<0.001	-0.34	-0.340	-0.16	0.102	-0.26	0.016	-0.33	<0.001	-0.36	<0.001
Other	-0.27	0.006	-0.30	-0.300	-0.30	0.071	-0.07	0.704	-0.20	0.046	-0.36	0.003
Stress												
Lesbian/gay	0.21	0.321	0.40	0.091	0.48	0.142	0.32	0.383	0.00	0.990	0.41	0.181
Bisexual	0.56	<0.001	0.72	0.720	0.88	<0.001	1.19	<0.001	0.39	0.012	0.52	0.002
Other	0.10	0.669	0.15	0.150	0.70	0.135	0.25	0.621	-0.20	0.460	0.03	0.933
Loneliness												
Lesbian/gay	-0.02	0.798	-0.04	0.504	0.03	0.776	0.03	0.788	-0.06	0.508	-0.10	0.241
Bisexual	0.22	<0.001	0.23	0.230	0.19	0.014	0.26	0.001	0.22	<0.001	0.20	<0.001
Other	0.11	0.148	0.11	0.110	0.10	0.651	0.14	0.323	0.10	0.177	0.09	0.332
Psychological distress												
Lesbian/gay	0.17	0.034	0.22	0.018	0.24	0.062	0.24	0.098	0.12	0.265	0.18	0.132
Bisexual	0.47	<0.001	0.55	0.550	0.60	<0.001	0.70	<0.001	0.39	<0.001	0.46	<0.001
Other	0.38	<0.001	0.40	0.400	0.70	<0.001	0.40	0.042	0.20	0.056	0.34	0.006
Alcohol use												
Lesbian/gay	-0.47	0.469	-0.15	0.844	-0.94	0.461	-0.54	0.703	-0.27	0.681	0.07	0.932
Bisexual	0.56	0.158	0.70	0.700	-0.33	0.733	0.88	0.412	0.64	0.079	0.49	0.297
Other	-0.68	0.370	-0.77	-0.770	-2.00	0.248	-2.67	0.172	-0.40	0.536	-0.21	0.819
Fatigue												
Lesbian/gay	0.06	0.423	0.17	0.027	0.12	0.257	0.12	0.289	0.01	0.925	0.19	0.064
Bisexual	0.14	0.001	0.29	0.290	0.21	0.008	0.40	<0.001	0.10	0.038	0.25	<0.001
Other	0.22	0.006	0.21	0.210	0.50	<0.001	0.31	0.053	0.10	0.405	0.17	0.116

All models adjusted for age, race/ethnicity, income, relationship status, parental status, and region. Heterosexual was the referent category for all models. Statistically significant associations at $p < 0.05$ are bolded.

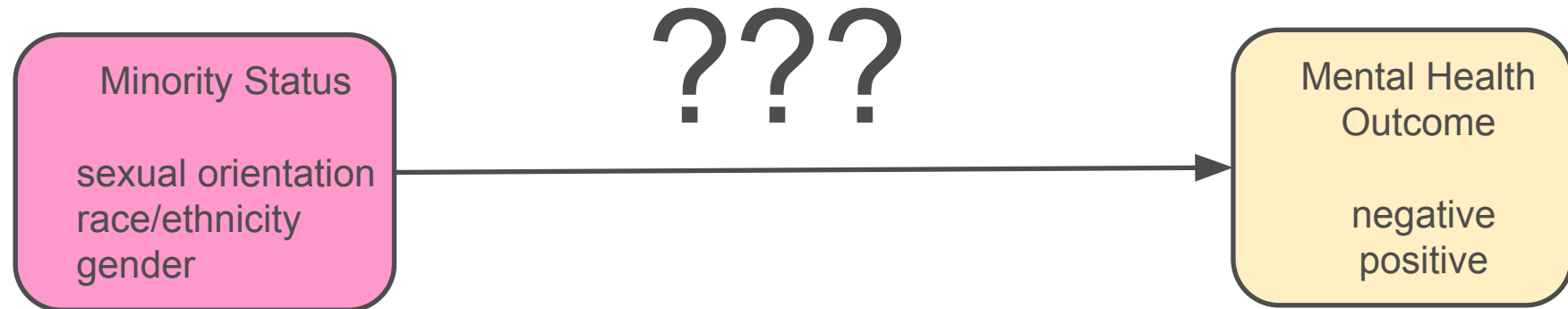
Explanatory Models

Explanatory Models – Just ask them...

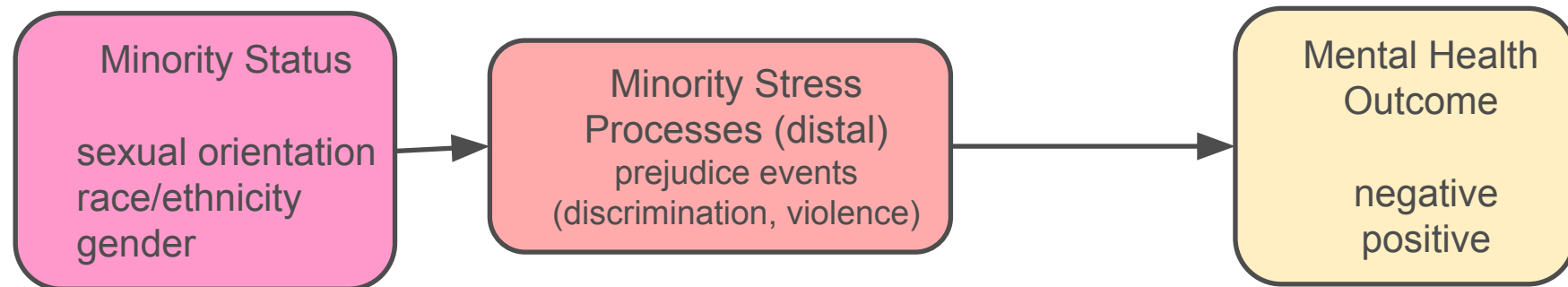
What is the most important problem you face in life right now?



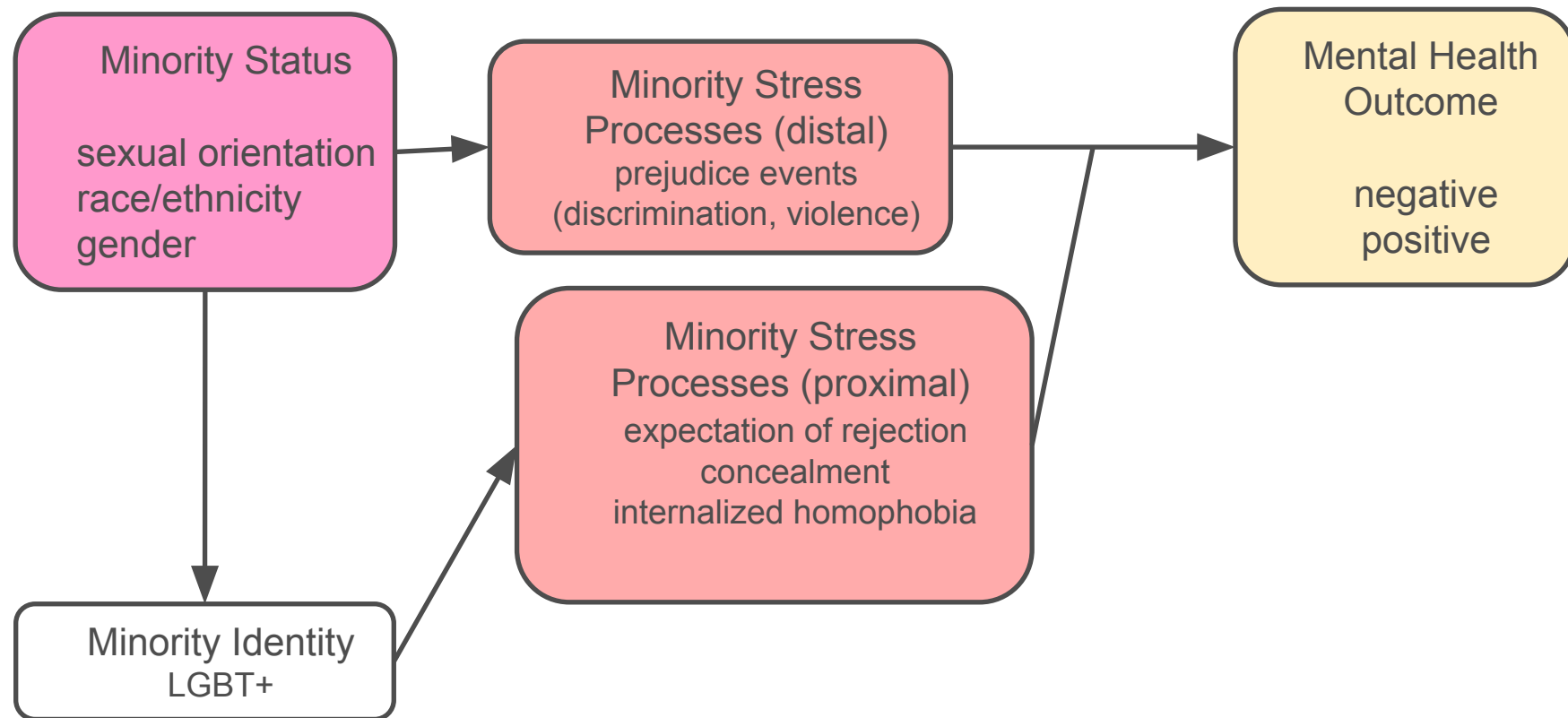
Minority Stress Model (Meyer, 2003)



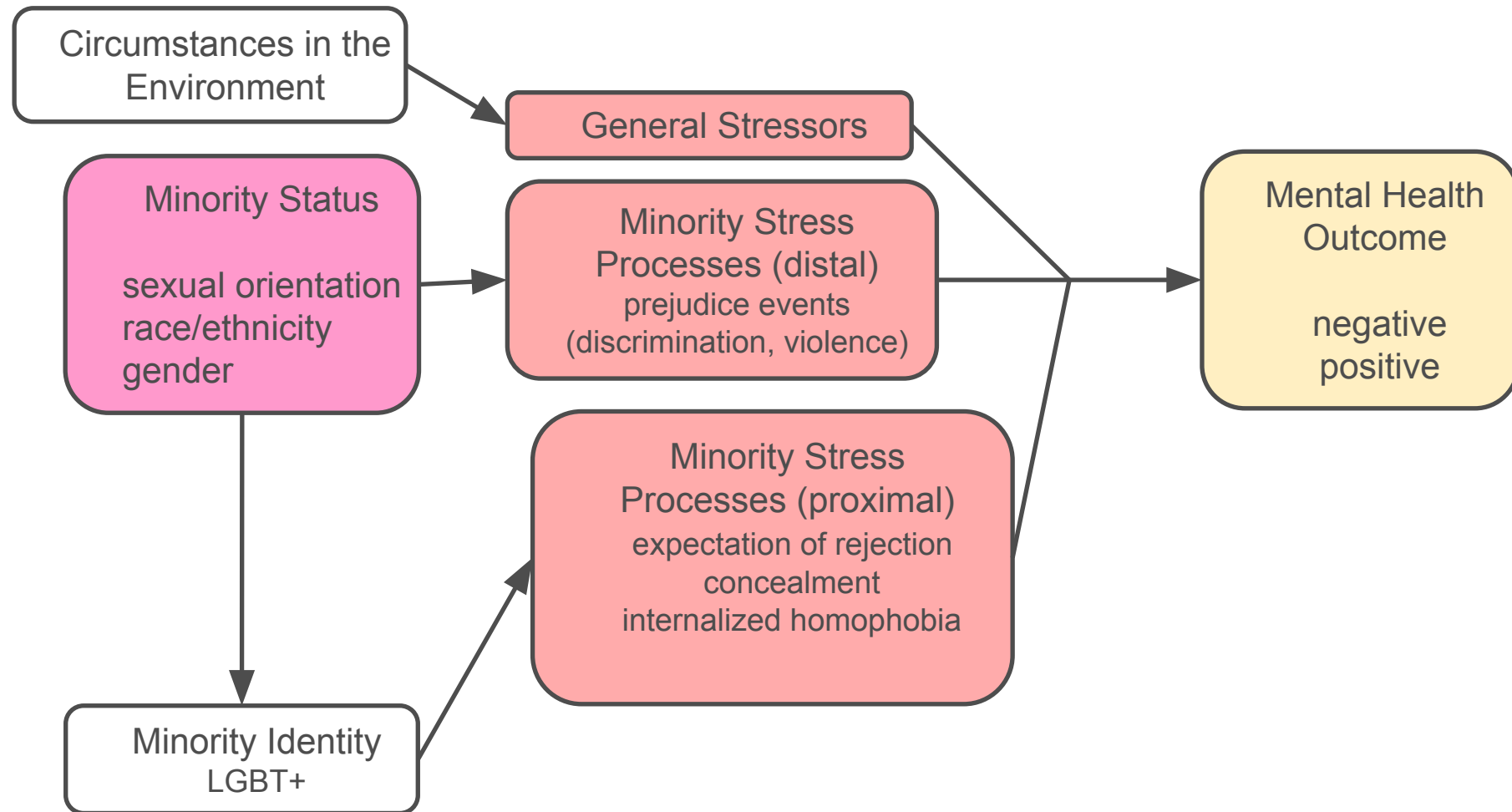
Minority Stress Model (Meyer, 2003)



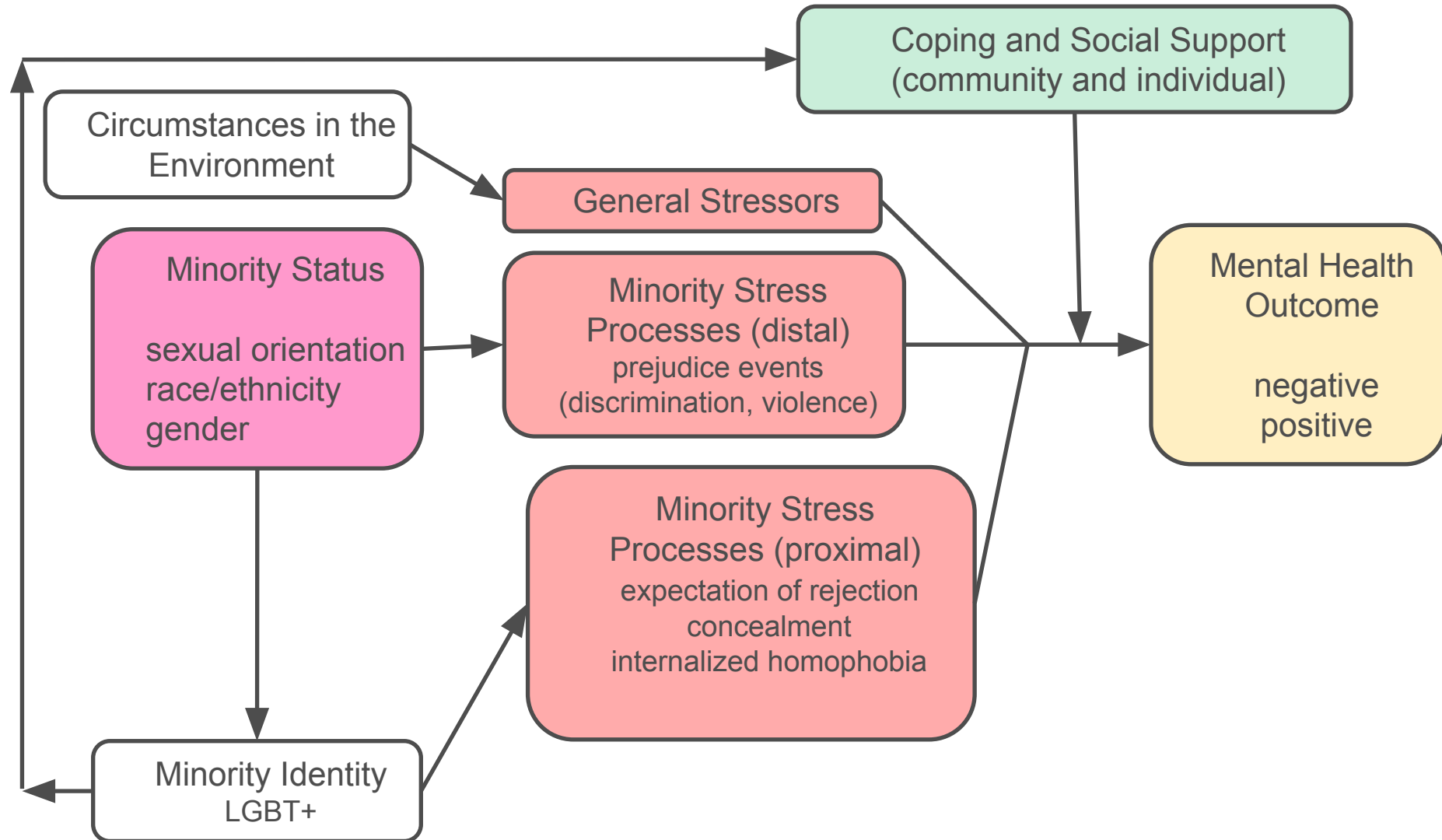
Minority Stress Model (Meyer, 2003)



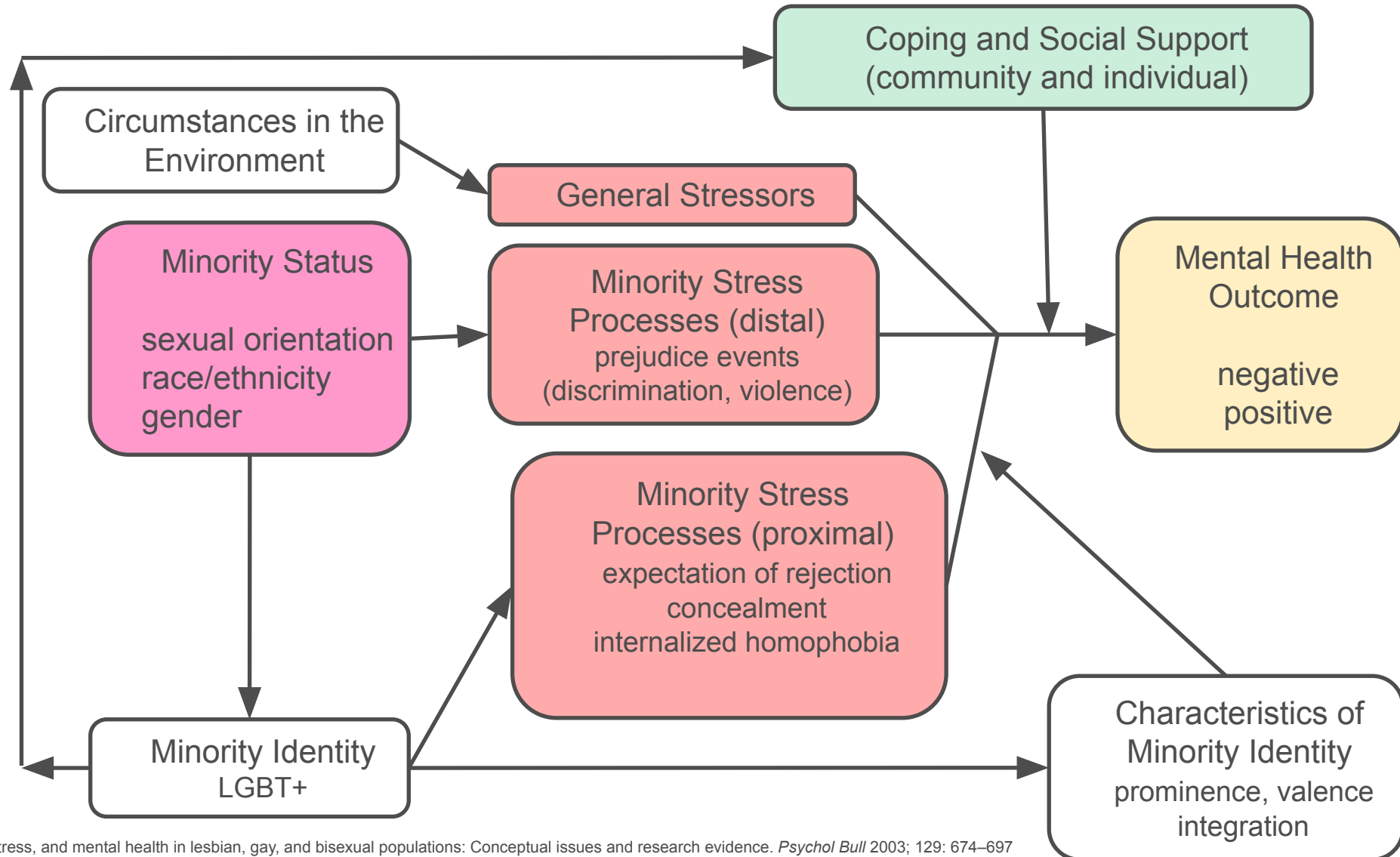
Minority Stress Model (Meyer, 2003)



Minority Stress Model (Meyer, 2003)



Minority Stress Model (Meyer, 2003)



Other Explanatory Models

- **Minority stress model of Virginia Brooks**

Brooks VR: *Minority Stress and Lesbian Women*. Lexington, MA: Lexington Books, 1981.

- **Psychological mediation framework**

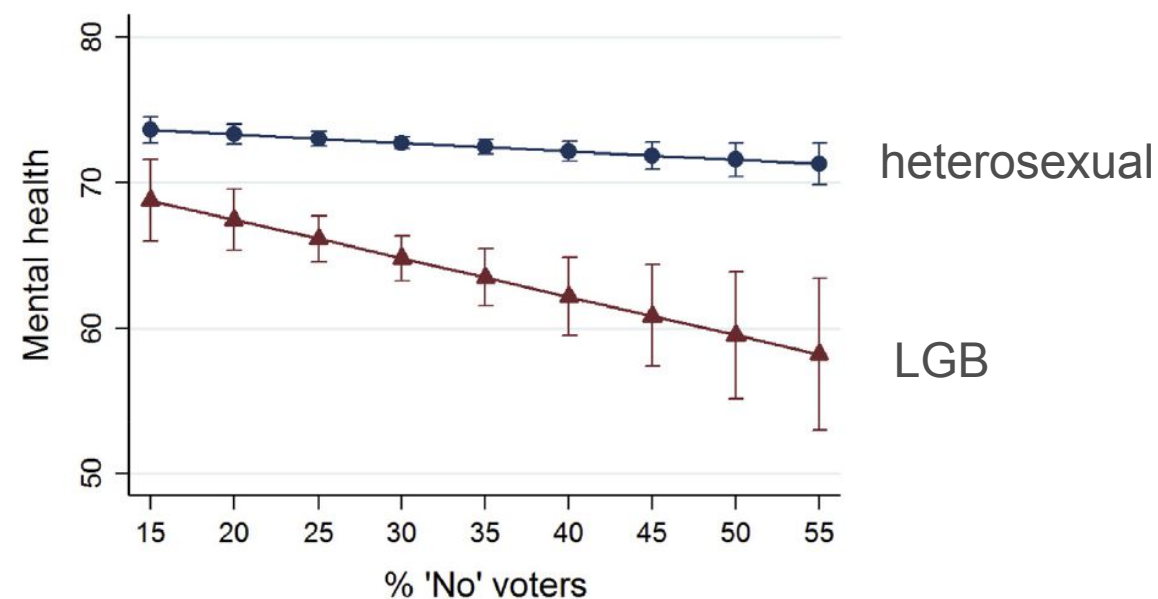
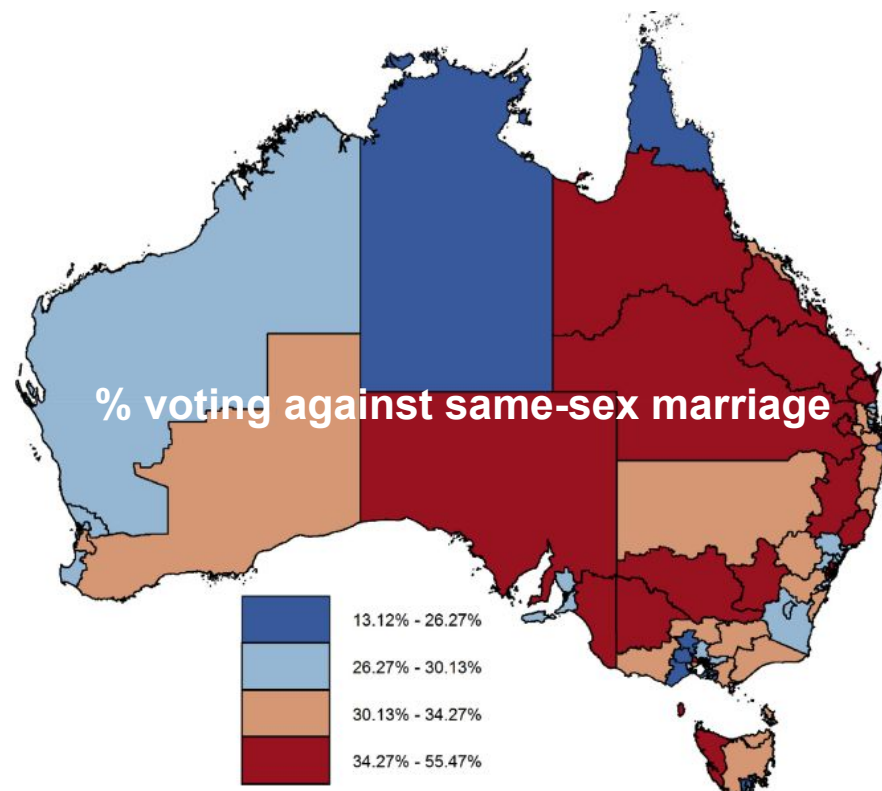
Hatzenbuehler, ML (2009). How does sexual minority stigma “get under the skin”? A psychological mediation framework. *Psych Bulletin*, 135, 707–730.

- **Syndemics Model**

Stall, R., Friedman, M., & Catania, J. A. (2008). Interacting epidemics and gay men’s health: a theory of syndemic production among urban gay men. In: Wolitski, R. J., Stall, R., & Valdiserri, R. O. (Hrsg.), *Unequal opportunity: health disparities affecting gay and bisexual men in the United States* (S. 251–274). New York: Oxford University Press.

- **Useful for trans and inter?**

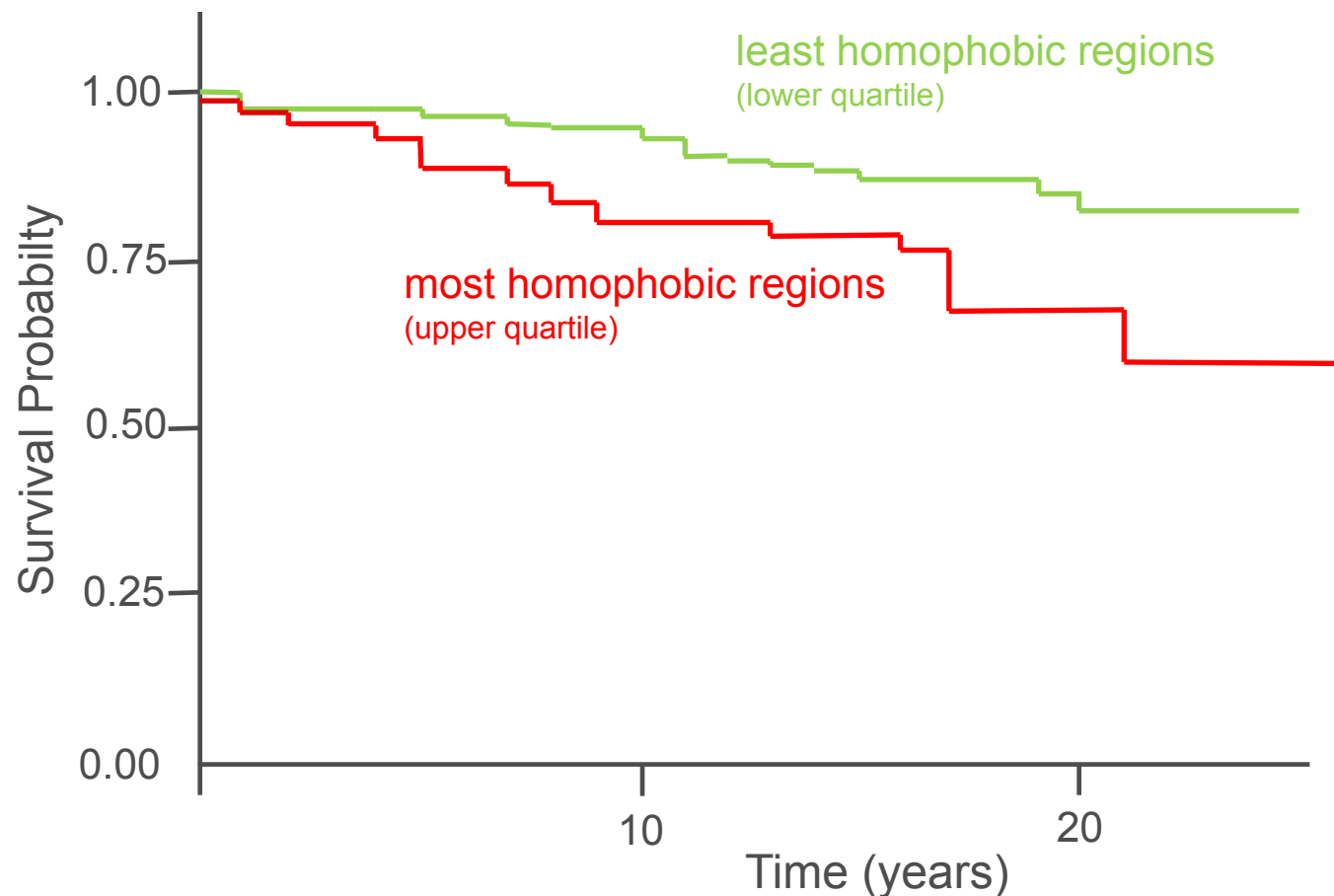
Impact of Homophobia on Mental Health



Perales & Todd (2018). Structural stigma and the health and wellbeing of Australian LGB populations: Exploiting geographic variation in the results of the 2017 same-sex marriage plebiscite. *Social Science & Medicine*, 208, 190-199.

Regional Homophobia and Mortality

- US - General Social Survey
- n = 629 sexual minority individual (past year behaviour)
- Attitudes towards gay/lesbians
- Mortality in regions with high vs. low levels of homophobia



Hatzenbuehler et al. (2020). Structural stigma and all-cause mortality among sexual minorities: Differences by sexual behavior?." *Social Science & Medicine* 244 (2020): 112463.

Figure 16: Harassment experienced due to being LGBTI, in the 12 months before the survey (%)⁴⁴

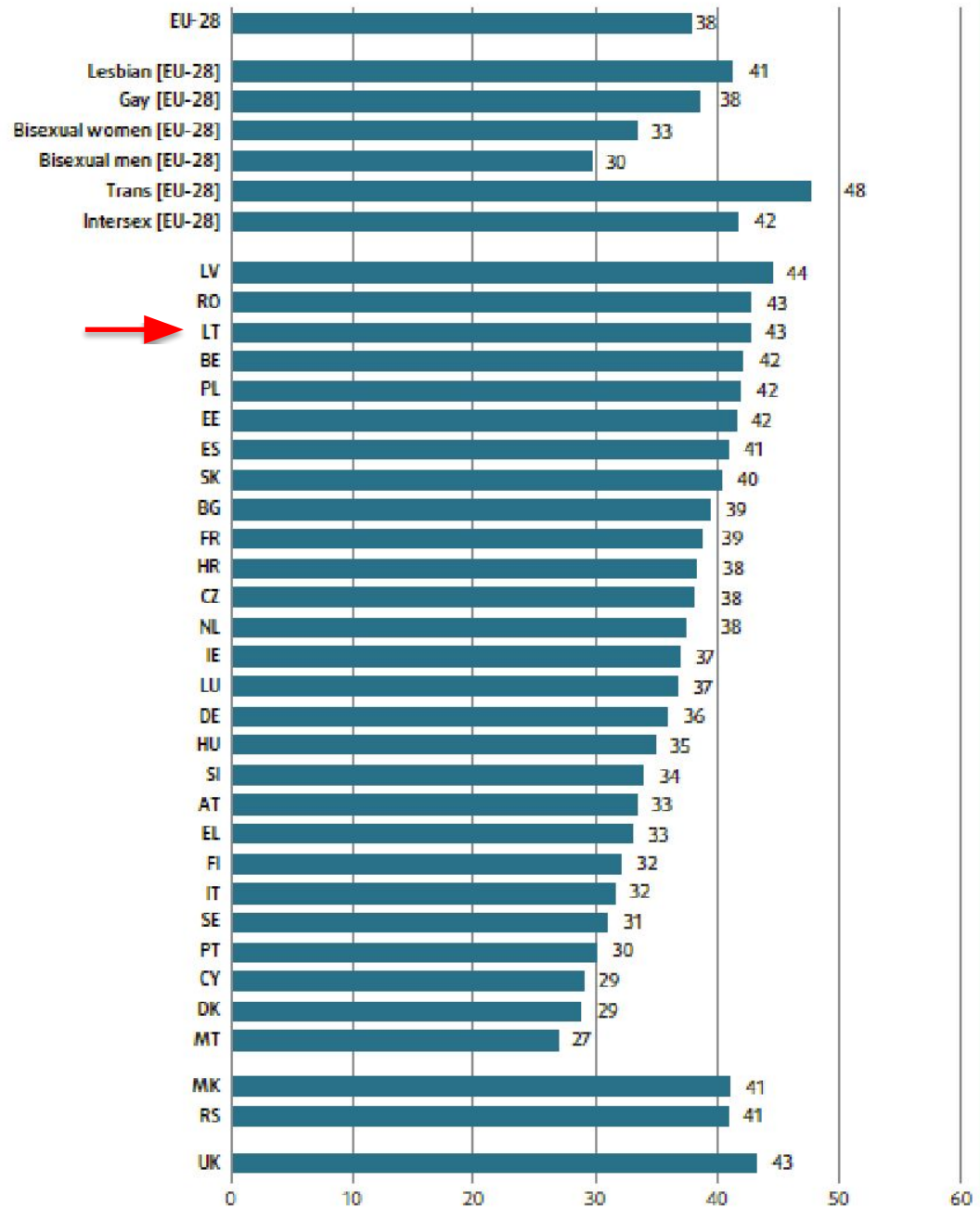
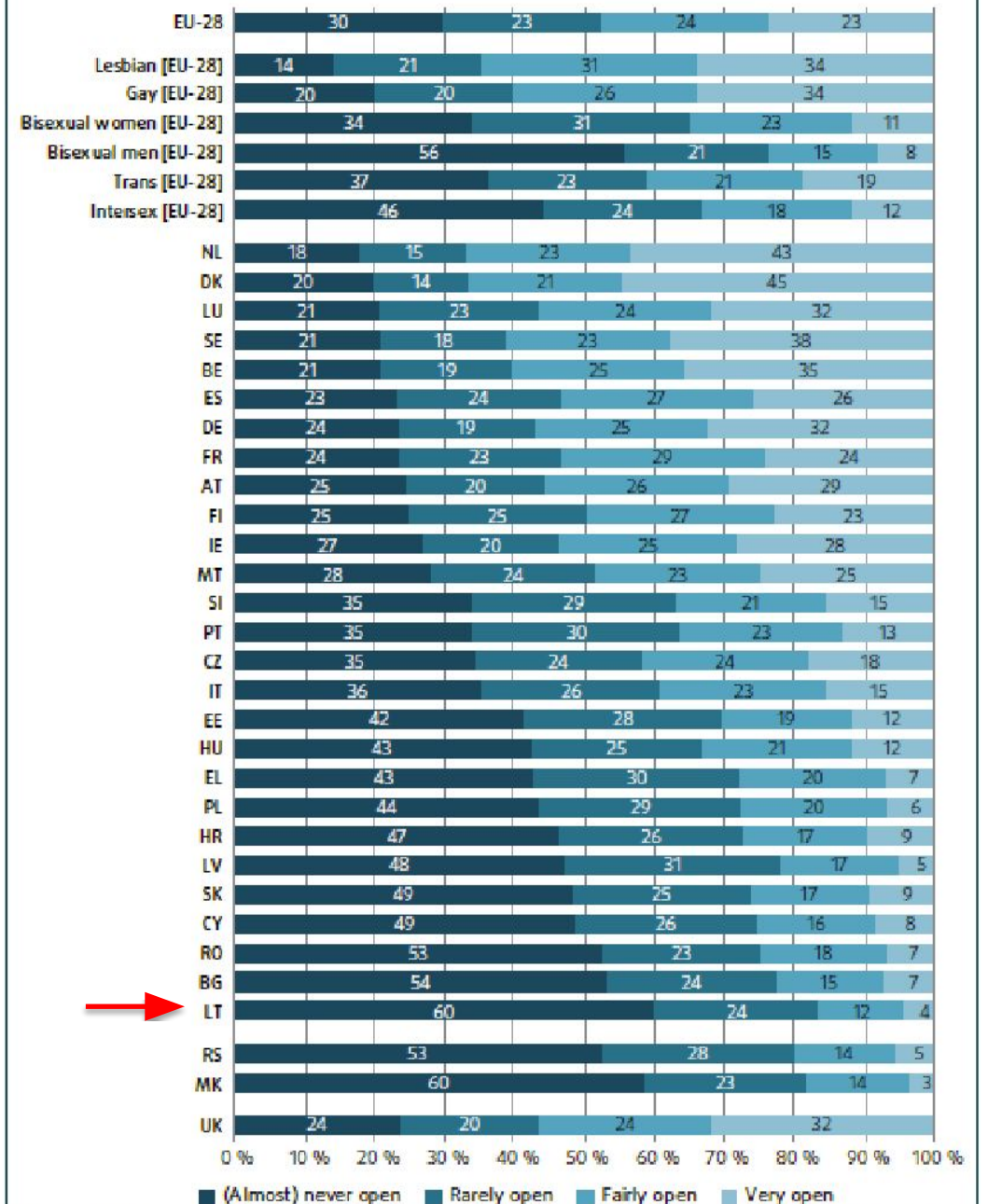


Figure 6: Respondents' levels of openness about being LGBTI, by group and country (%)⁴⁴



Structural Stigma

SEXUAL ORIENTATION LAWS IN THE WORLD - 2019

From criminalisation of consensual same-sex sexual acts between adults to protection against discrimination based on sexual orientation

<https://ilga.org/ilga-map-sexual-orientation-laws-2019>



The data presented in this map is based on State-Sponsored Homophobia, an ILGA report by Lucas Ramón Mendos. This map can be reproduced and printed without permission as long as ILGA is properly credited and the content is not altered. ilga.org

Protection against discrimination based on sexual orientation

Constitutional Protection	9	Broad Protection	52	Employment Protection	73	Limited/Uneven Protection	8	No Prot./ No Crim.	55
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Legal recognition of families

- Marriage or other forms of legal union for same-sex couples
- Adoption open to same-sex couples

Criminalisation of consensual same-sex sexual acts between adults

De Facto Criminalisation	2	Up to 8 Years Imprisonment	31	10 Years to Life in Prison	26	Death Penalty	6 (Effective) 5 (Possible)
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Legal barriers to the exercise of rights

- Legal barriers to freedom of expression on SOGIE issues
- Legal barriers to the registration or operation of sexual orientation related CSOs



Legal barriers to the exercise of rights



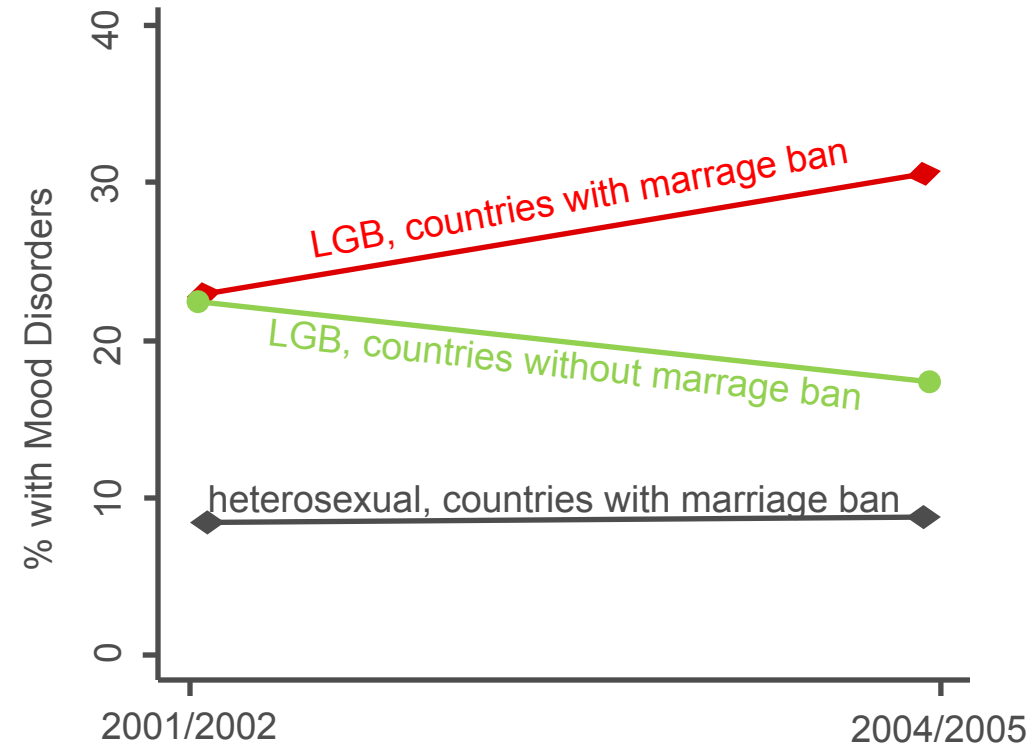
Legal barriers to freedom of expression on SOGIESC issues



Legal barriers to the registration or operation of sexual orientation related CSOs

Structural Stigma and Mental Health - Gay Marriage Ban

- Prospective Study
2001/2002 vs. 2004/2005
- „Gay marriage ban“
2004/2005 in 16 US-States



Hatzenbuehler et al. (2012). Effect of same-sex marriage laws on health care use and expenditures in sexual minority men: A quasi-natural experiment. *American Journal of Public Health*, 102(2), 285-291.

Why Homo-/Transphobia? Transgressing Gender Roles



Credit: photography Eli Rezkallah, produced by Plastik Studios 2018.
From <https://www.thescottishsun.co.uk/news/2110885/retro-sexist-ads-have-gender-roles-reversed-in-modern-day-makeover/>



By Frankie Fouganthin - Own work, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=17569877>



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Bullying bc of Gender Role Nonconformity & Suicide Risk

	Sexual Orientierung (attraction)			
	Heterosexual n = 2263		LGB n = 175	
Bullying because of being gender role nonconforming	No 83%	Yes 17%	No 62%	Yes 38%
Suicide attempts	5%	16%	20%	43%

Calculations by Pierre Tremblay, based on, **Ioerger et al. (2015)**. Beyond Same-Sex Attraction: Gender-Variant-Based Victimization Is Associated with Suicidal Behavior and Substance Use for Other-Sex Attracted Adolescents. *PLoS One*. Jun 12; 10(6): e0129976

Bullying bc of Gender Role Nonconformity & Suicide Risk

	Sexual Orientierung (attraction)				Among suicide attempters:	
	Heterosexual n = 2263		LGB n = 175		Proportion LGB	Proportion LGB or bullied because of being gender nonconforming
Bullying because of being gender role nonconforming	No 83%	Yes 17%	No 62%	Yes 38%		
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Calculations by Pierre Tremblay, based on, **loerger et al. (2015)**. Beyond Same-Sex Attraction: Gender-Variant-Based Victimization Is Associated with Suicidal Behavior and Substance Use for Other-Sex Attracted Adolescents. *PLoS One*. Jun 12; 10(6): e0129976

Not Only a Problem of LGBT+

	Sexual Orientierung (attraction)				Among suicide attempters:	
	Heterosexual n = 2263		LGB n = 175		Proportion LGB	Proportion LGB or bullied because of being gender nonconforming
Bullying because of being gender role nonconforming	No 83%	Yes 17% n = 387	No 62%	Yes 38% n = 67		
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Calculations by Pierre Tremblay, based on, **loerger et al. (2015)**. Beyond Same-Sex Attraction: Gender-Variant-Based Victimization Is Associated with Suicidal Behavior and Substance Use for Other-Sex Attracted Adolescents. *PLoS One*. Jun 12; 10(6): e0129976

Prevention

■ Individual Level

- Tailored services
 - helplines such as the Trevor Project
 - historically provided by LGBT+ organizations
 - Many LGBT+ would not use other hotlines (Goldbach et al., 2018)
- Tailored psychotherapies, e.g., CBT informed by theoretical models (Pachankis, 2015; Pachankis et al., 2015)
- Delivering hope – www.itgetsbetter.org
- Affirmative health care for LGBT+ (Institute of Medicine, 2011; Haas et al., 2011)

■ Social Level

- Attachment-based family therapy (Diamond et al., 2012; Diamond & Shpigel, 2014)
- Educating & supporting parents – „Lead with love“ video (Huebner et al., 2013) <https://leadwithlovefilm.com/film-online/>
- School: e.g., gay-straight alliances, anti-bullying policies (Marx & Kettrey, 2016)

■ Societal Level – Structural Stigma

- Legal equality, religions, attitudes,...

Prevention in your institution - ideas

- Education (Workshops) – organizational aspects
- Learn about the realities of LGBT+ people
- Promote/support LGBT+ role models/colleagues
- Enhance visibility (rainbow flag, posters)
- Inclusive language
- Avoid heterosexual and cisgender assumptions
- Trans: appropriate names and pronouns, nonbinary infrastructure
- Develop policies against anti-LGBT+ discrimination



Plöderl, M., & Winkler, R. (2019). Sexuelle Orientierung im Gesundheitswesen. Umgang mit einer unsichtbaren Diversity-Dimension. In: Steger, F. (Eds.). *Diversity in Healthcare* (S. 299-317). Freiburg: Alber Verlag.

Review of guidelines: Klein et al. (2018), open access, <https://www.liebertpub.com/doi/10.1089/lgbt.2017.0213>



Thank you for your attention!