Tobacco use and sexual and gender minority (SGM) girls/women

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Disclosures

- No disclosures
- No conflicts of interest
- No grant funding

Outline

Defining terms



- Tobacco use and sexual and gender minority (SGM) girls and women
- Sex minority
 - Intersex
- Gender minority
 - Transgender
 - Non-binary
- Sexual orientation minority

- Tobacco use
- Tobacco use cessation
- Factors related to tobacco use

Summary and needs for future research

Defining Terms: Sex and Gender Identity

- Sex = a person's biological status (male, female, intersex)
- Sex assigned / gender assignment at birth = classification at birth of being male or female
- Gender Identity = one's self-identification as male* or female* or another gender identity**
- *Cisgender = gender identity and gender assignment/sex assigned at birth match
- *Transgender = gender identity and gender assignment/sex assigned at birth do not match
- **Nonbinary identities (e.g., identifies as neither male or female, identifies as both male and female)

NONBINARY

An umbrella term for a person who identifies with or expresses a gender identity that is neither entirely male nor entirely female

Plus other terms...

Including culturally-specific terms (e.g., Two-Spirit)

ANDROGYNOUS

Identifying and/or presenting
as neither specifically
masculine nor feminine

GENDER FLUID

One who embraces fluidity of gender identity

AGENDER

One who does not identify as a particular gender

GENDER NON-CONFORMING

One whose physical or behavioral characteristics do not correspond to the traditonal expectations of their gender

GENDERQUEER

One who does not identify with a single fixed gender

GRAPHIC ILLUSTRATION BY SRINIDHI SESHADRI

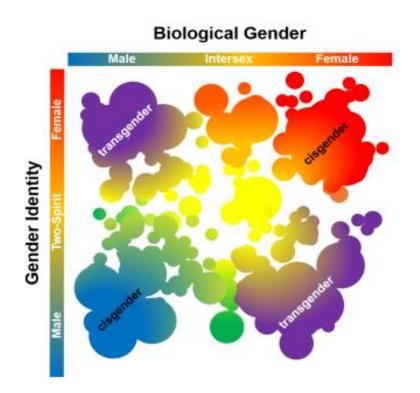
Defining Terms: Sexual Orientation

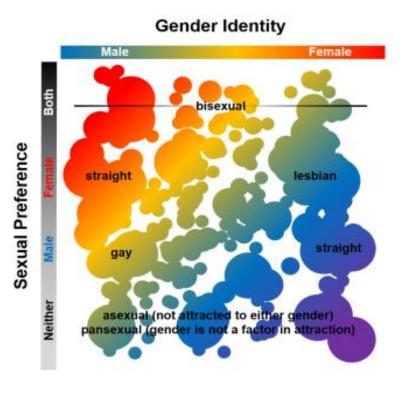
- Sexual Orientation
 - enduring sexual attraction to male partners, female partners, or both
 - a component of identity that includes a person's sexual and emotional attraction to another person
 - Straight
 - Gay/lesbian
 - Bisexual
 - Pansexual
 - Asexual
 - plus others...

Gender Identity versus Sexual Orientation

GENDER IDENTITY

SEXUAL ORIENTATION





Gender Identity versus Sexual Orientation: two different characteristics

Not always classified differently in research (e.g., LGBT)

Retrieved from:

http://sitn.hms.harvard.edu/flash/2016/gender-lines-science-transgender-identity/

by Katherine J. Wu; figure by Brad Wierbowski

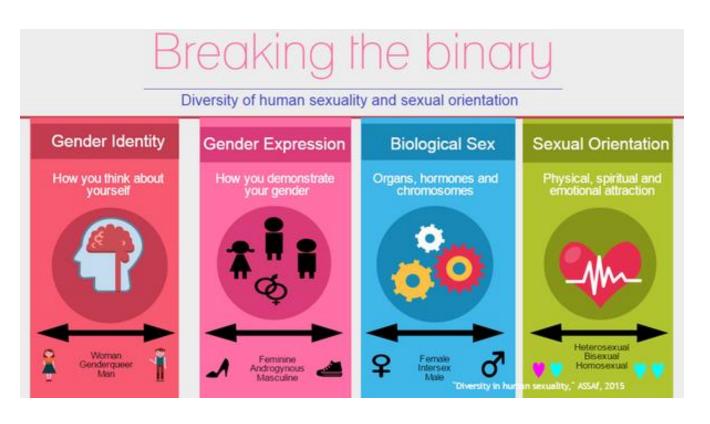
Tobacco use among sexual and gender minority (SGM) girls and women

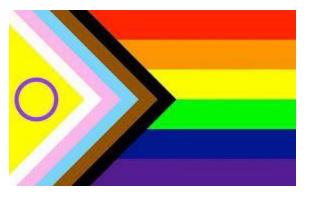
- -Tobacco use
- -Tobacco cessation
- -Factors related to tobacco use

Biological Sex: intersex

Gender Identity: transgender, non-binary

Sexual Orientation: lesbian, bisexual, pansexual, asexual, etc





Tobacco Use by US Adults, 2021 data (CDC, 2023)

Adults	Any Tobacco Product	Cigarettes	Cigars	Pipes	e-cigarettes	Smokeless tobacco	2+ tobacco products	Quit ratio
Overall	18.7%	11.5%	3.5%	0.9%	4.5%	2.1%	3.4%	66.5%
Heterosexual	18.4%	11.4%	3.5%	0.9%	4.1%	2.2%	3.2%	66.9%
LGB	27.4%	15.3%	4.1%	2.3%	13.2%	1.2%	7.2%	61.3%

Notes: Reported use of product "some days" or "every day"

L=lesbian, G=gay, B=bisexual

Quit ratio: % with lifetime smoking (100+ lifetime cigarettes) who have quit smoking

Tobacco Use by US Adults, 2021, 2013 data

(CDC, 2023; Buchting et al., American Journal of Preventive Medicine, 2017)

Adults	Any Tobacco Product	Cigarettes	Cigars	Pipes	e-cigarettes	Smokeless tobacco	2+ tobacco products	Quit ratio
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LGB	27.4%	15.3%	4.1%	2.3%	13.2%	1.2%	7.2%	61.3%
TG (50% F)	39.7%	35.5%	26.8%		21.3%			

Notes: Reported use of product "some days" or "every day"

L=lesbian, G=gay, B=bisexual, TG=transgender, F=female

Quit ratio: % with lifetime smoking (100+ lifetime cigarettes) who have quit smoking

Tobacco Use by US Adults, 2013

Buchting, F. O., Emory, K. T., Scout, Kim, Y., Fagan, P., Vera, L. E., & Emery, S. (2017). Transgender Use of Cigarettes, Cigars, and E-Cigarettes in a National Study. American Journal of Preventive Medicine, 53(1), e1–e7. https://doi.org/10.1016/j.amepre.2016.11.022

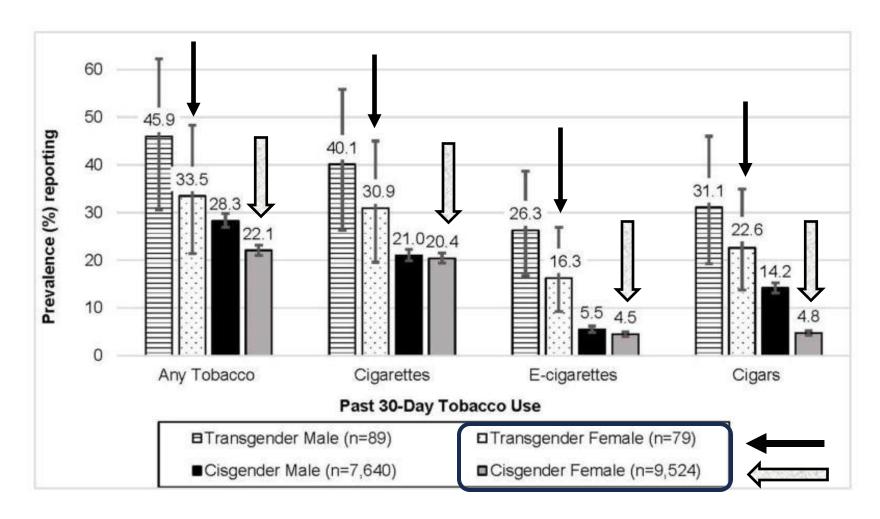


Figure 1. Gender differences in tobacco use among transgender and cisgender adult participants (2013).

US national data; 17,164 cisgender adults, 168 transgender adults

Summary: Higher prevalence of past-30-day tobacco use, cigarette use, e-cigarette use, and cigar use for transgender females versus cisgender females

Tobacco Use by US Adults, 2016-2018 (n=33,822)

Sawyer, A. N., Bono, R. S., Kaplan, B., & Breland, A. B. (2022). Nicotine/tobacco use disparities among transgender and gender diverse adults: Findings from wave 4 PATH data. Drug and alcohol dependence, 232, 109268. https://doi.org/10.1016/j.drugalcdep.2022.109268

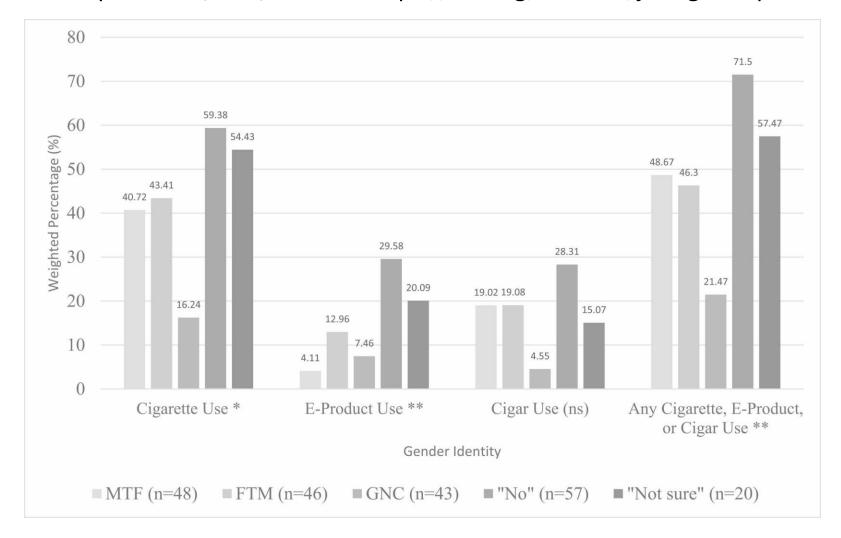


Figure 1. Weighted percentages of nicotine/tobacco product use by transgender identity.

MTF=transgender, male to female FTM=transgender, female to male GNC=gender non-conforming "no"=not identifying with any terms listed

* or **=significant differences

Summary: Among transgender and gender diverse adults, higher prevalence of cigarette, e-product, and cigar use by "no" and "no sure" respondents, lower by GNC respondents

Tobacco Use by US Youth, 2022 data (CDC, 2023)

	Any Tobacco Product Use (past 30 days)				
Youth	Overall	High School (9-12)	Middle School (6-8)		
Heterosexual	9.7%	14.1%	3.6%		
LGB	16.0%	21.5%	7.6%		
Not sure	7.1%	12.5%			
No, not transgender	10.2%	14.8%	3.8%		
Yes, transgender	16.6%	20.5%	9.1%		
Not sure	14.5%	23.6%			
I don't know what this question is asking	8.1%	13.8%	4.0%		

Notes: L=lesbian, G=gay, B=bisexual

Other citations: Fontanari et al., 2021; James et al., 2020; Newcomb et al., 2020

Research on smoking treatment outcomes among SGM individuals

Research on smoking treatment outcomes among SGM individuals

Baskerville et al, 2017. Preventive Medicine Reports 6, 53–62.

- 21 studies
 - Ages 18 72
 - Only 1 study of young adults
 - 6% or fewer transgender participants per sample (of 5 studies)
- Most were:
 - Quasi-experimental
 - Program evaluation data
- Few control groups
- Only half in the peer-reviewed literature
- Group counseling, community interventions
- Promising results

Berger and Mooney-Somers, 2017. Nicotine & Tobacco Research, 19(12), 1408-1417.

- 19 studies
- Gay men were included in all studies
 - 21% women
- 3% transgender
- No studies on intersex people
- Few control groups
- Promising results
 - End of Treatment Abstinence: 60.0%
 - 3-6 Month Follow-Up Abstinence: 38.6%

Smoking Cessation

Nagelhout, G. E., Poole, N. L., Geboers, C., Magnée, T., Kaag, A. M., van den Brand, F. A., van den Putte, B., de Vries, H., Fong, G. T., & Willemsen, M. C. (2023). Smoking Cessation Among Gender Minority Populations, Cis-women, and Cis-men: Findings From the International Tobacco Control Netherlands Survey. *Nicotine & Tobacco Research*, 25(5), 945–953. https://doi.org/10.1093/ntr/ntac283

- 2020 International Tobacco Control Survey
- Cis-women, n=670; cis-men, n=897; gender minority individuals, n=220
 - Gender minority: neither masculine or feminine n=203; nonbinary/genderqueer/intersex/transgender/other n=17

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Gender minority women = cis-women

- Heaviness of smoking
- Lifetime attempt to quit smoking\number of quit attempts
- Plans to quit smoking in next 6 months
- Triggers to quit smoking:
 - price of cigarettes (81.2% vs 77.5%)
 - concerns for health (71.2% vs 64.8%)
 - a smoking-related illness (44.0% vs 40.4%)
 - society disapproval of smoking (41.6% vs 36.3%)
 - COVID outbreak (29.0% vs 22.5%)

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Gender minority women > cis-women

- Report use of smoking cessation assistance in past 6 months (20.1% versus 12.2%)
- Triggers to quit smoking:
 - family and friends disapprove (46.6% vs 38.1%)
 - advice from doctor to quit (39.7% vs 32.2%)
 - smoking restrictions in public (34.2% vs 27.0%)
 - warning labels on cig packs (33.3% vs 25.5%)
 - anti-smoking campaigns (32.9% vs 21.8%)





Factors related to tobacco use among SGM individuals

- Stress
 - General stressors
 - Gender minority stress
- Life experiences and psychiatric/substance use comorbidities
 - Trauma
 - Violence
 - Depression
 - Anxiety
 - Other substance use
- Social aspects of tobacco use
 - Social support
 - Social norms for tobacco use
 - Social environment
- Aspects of tobacco use that are appealing

References include: Call et al., 2021; Gamarel et al., 2016; Hinds et al., 2022; Kittaneh et al., 2021; Newcomb et al., 2020; Sherman et al., 2022; Wolford-Clevenger et al., 2022

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Wolford-Clevenger, C., Hill, S. V., & Cropsey, K. (2022). Correlates of Tobacco and Nicotine Use Among Transgender and Gender Diverse People: A Systematic Review Guided by the Minority Stress Model. Nicotine & Tobacco Research, 24(4), 444–452.

https://doi.org/10.1093/ntr/ntab159

Aspects of tobacco use that are appealing

References include: Gamarel et al., 2016; Hinds et al., 2022; Kittaneh et al., 2021; Sherman et al., 2022; Wolford-Clevenger et al., 2022

Factors related to tobacco use among SGM individuals: *In their words*

Sun, C. J., Doran, K. M., Sevelius, J. M., & Bailey, S. R. (2023). A Qualitative Examination of Tobacco Use and Smoking Cessation Among Gender Minority Adults. Annals of Behavioral Medicine, 57(7), 530—540.https://doi.org/10.1093/abm/kaac072

19 participants (age M = 30, SD=6.5)

- Sex assigned at birth: 68.4% female
- Gender: 21.1% female, 15.8% male, 47.4% transgender, 26.3% gender nonconforming/ genderqueer, 5.3% unsure, 21.1% other responses (e.g., agender)
- Race: 57.8% White
- 63.2% current smoking, 26.8% past smoking

Hinds, J. T., Chow, S., Loukas, A., & Perry, C. L. (2022). Exploring Transgender and Gender Diverse Young Adult Tobacco Use. Journal of Homosexuality, 69(13), 2188–2208. https://doi.org/10.1080/00918369.2021.1935621

25 participants (age M = 22.7 SD=3.2)

- Sex assigned at birth: ~70% female
- Gender identity: 64% non-binary, 36% genderqueer, 20% transgender female, 16% transgender male, 12% female, 12% agender, 8% genderfluid, 4% transfeminine, 4% transmasculine, 4% gender non-conforming, 4% male
- Race: 64% non-Hispanic White
- 84% current tobacco use, 72% cigarette use

Tan, A. S., Gazarian, P. K., Darwish, S., Hanby, E., Farnham, B. C., Koroma-Coker, F. A., Potter, J., & Ballout, S. (2021). Smoking Protective and Risk Factors Among Transgender and Gender-Expansive Individuals (Project SPRING): Qualitative Study Using Digital Photovoice. JMIR public health and surveillance, 7(10), e27417. https://doi.org/10.2196/27417

47 participants (age M = 26, SD=8.4)

- 53% nonbinary or gender non-conforming, 15% male or trans male/man; 17% female or trans female/women; 15% other identities
- 55% daily cigarette smoking, 34% e-cigarette use

Factors related to tobacco use among SGM individuals

Tan et al., 2021; Hinds et al., 2022; Sun et al., 2023

Smoking and Stress (General and Gender Minority-Specific)

"So, any time that I smoke when I'm really stressed out, I feel like I can feel the stress like melting away or it feels more manageable at that time." (Sun)

"We live challenging lives where we have to explain our existence and justify our existence and explain gender and biology and social norms to people on a regular basis. And that's exhausting." (Sun)

"The drinking, the smoking . . . it's more to deal with other things that I've got compounding on me, especially lately since I've been having a lot more gender dysphoria than before." (Hinds)

"One of my fellow trans coworkers was harassed, screamed at, and intentionally misgendered as well as received a torrent of slurs from a woman that came in today and that definitely made us all want to smoke." (Tan)

Factors related to tobacco use among SGM individuals

Tan et al., 2021; Hinds et al., 2022; Sun et al., 2023

Smoking and Social Support

"...there are things that make me want to smoke, and seeing anyone else with a cigarette or hearing anybody else talk about having a cigarette is one of those things." (Tan)

"I think that when I did start smoking cigarettes, it was because I was around [cigarettes] more, socially, with friends, with expartners..." (Sun)

"If you have a group of friends that do smoke then that becomes part of your identity within a group of people." (Sun)

"...almost every drag king, and almost every drag queen smokes cigarettes. It was just like a constant thing. It was part of the social circle. It was part of the bar culture where all of the shows were had." (Hinds)

Factors related to tobacco use among SGM individuals Hinds et al., 2022; Sun et al., 2023

Smoking Cessation and Health

"But I was also coughing a lot, and having a lot of mucus in my throat, and having a hard time sleeping because of my coughing symptoms, and yeah. So I think that was kind of when I was thinking about it [quitting]." (Sun)

Gender-Affirming Surgery:

"Yeah, that's one of the reasons why I quit the first time when my boyfriend had surgery. Because he couldn't have it obviously because it would mess with the scars and it messes with healing and all that. So now, I would definitely, quit doing anything, like smoking entirely if I was going to get surgery for sure." (Sun)

"The best day of my life was getting chest surgery. So, I just had to focus on the significance of chest surgery and how important it was for me for it to come out looking the best it possibly could, and how insignificant cigarettes were compared to that" (Sun)

Factors related to tobacco use among SGM individuals

Tan et al., 2021; Hinds et al., 2022; Sun et al., 2023

Smoking Cessation and Social Support

"I don't really have a lot of other trans people in my life, but, but I think having an opportunity to connect with other trans people with similar experiences would be very appealing and helpful in yeah cessation" (Sun)

"My best friend/life partner HATES when I smoke, so thinking of her makes me want to quit." (Tan)

- Disparities in tobacco use for SGM girls/women/individuals
- Clinical implications:
 - Disparities
 - Reasons for use, reasons for cessation, barriers to cessation
 - Some similar and some unique
- Research Implications:
 - More research
 - SGM individuals in general
 - SGM girls
 - Intersex
 - Consider intersectionality
 - e.g., gender identity and race/ethnicity
 - Gender-affirming care (surgery, hormone treatment)
 - Assessment
 - Reporting findings

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 - More research
 - Consider intersectionality
 - Gender-affirming care (surgery, hormone treatment)
 - Hinds et al., under review; Hinds et al., in preparation
 - Assessment
 - Reporting findings

- Gender-affirming care (surgery, [hormone treatment])
 - Hinds et al., under review (n=63) [Hinds et al., in preparation (n=91)]

Patient Subgroup	# of studies, %	Examples
Transfeminine / "top" surgery	5 (7.9%)	Breast augmentation, implants
Transfeminine / "bottom" surgery	13 (20.6%)	vaginoplasty
Transmasculine / "top" surgery	12 (19.0%)	mastectomy
Transmasculine / "bottom" surgery	17 (27.0%)	phalloplasty
Multiple / Other Surgery Types	5 (7.9%)	Facial feminization, vocal cord surgery, combined surgeries

57 studies reported smoking prevalence: 3.1% to 91.0%

Summary:

- Assessment of tobacco / smoking: varied and inconsistent
- Little information about whether smoking cessation was offered, what services were offered (only 2 studies mentioned "assistance")
- <50% examined complications in relation to tobacco use
 - Mixed results

Smoking Cessation & Surgery Eligibility	# of studies, %
Not reported	38 (60.3%)
Yes required	13 (20.6%)
Not required	5 (7.9%)
Other	7 (11.1%)

Clinical implications:

- Disparities
- Reasons for use, reasons for cessation, barriers to cessation
 - Some similar and some unique

Research Implications:

- More research
- Consider intersectionality
- Gender-affirming care (surgery, hormone treatment)

Assessment

- Sex, gender identity
- Range of terms
- Questioning, changes over time
- Reporting findings

Dermody, Heffner, Hinds, McQuoid,
Quisenberry, Tan, & Vogel (2020). We are
in This Together: Promoting Health Equity,
Diversity, and Inclusion in Tobacco
Research for Sexual and Gender Minority
Populations. Nicotine & Tobacco
Research, 22(12), 2276–2279.
https://doi.org/10.1093/ntr/ntaa070

Weinberger, Steinberg, Mills, Dermody,
Heffner, Kong, Pang, & Rosen (2022). Assessing
Sex, Gender Identity, Sexual Orientation, Race,
Ethnicity, Socioeconomic Status, and Mental
Health Concerns in Tobacco Use Disorder
Treatment Research: Measurement Challenges
and Recommendations From a Society for
Research on Nicotine and Tobacco Preconference Workshop. Nicotine & Tobacco
Research, 24(5), 643–653.
https://doi.org/10.1093/ntr/ntab201

Thank you!



- Grant funding: None
- Conflicts of Interest/Disclosures: None



Thank you to:

- Tres Hinds, PhD (GAS and GAHT projects)
- Caroline Delbourgo Patton, MA, MSLIS (GAS and GAHT projects)
- Smoking and Nicotine Dependence Research Lab
 - GAS and GAHT projects: Loriann Cioffi, Kaitlin Cuddleston, Talya Gordon, Noam Kuritzky, Jung-Yun Min, Isabella Plotnik, Esther Stern, Perel (Perri) Wein, Elijah Wolfe
- ARCS (Addictions Research Consortium on Sex/Gender): Alicia Allen, PhD;
 Elise DeVito, PhD; Raina Pang, PhD; Nicole Petersen, PhD