



Waipapa  
Taumata Rau  
**University  
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# Beyond Data Binaries

How LGBTQI+ Personal Security Can Bridge Data  
Gaps in Public Transport Research and Practice



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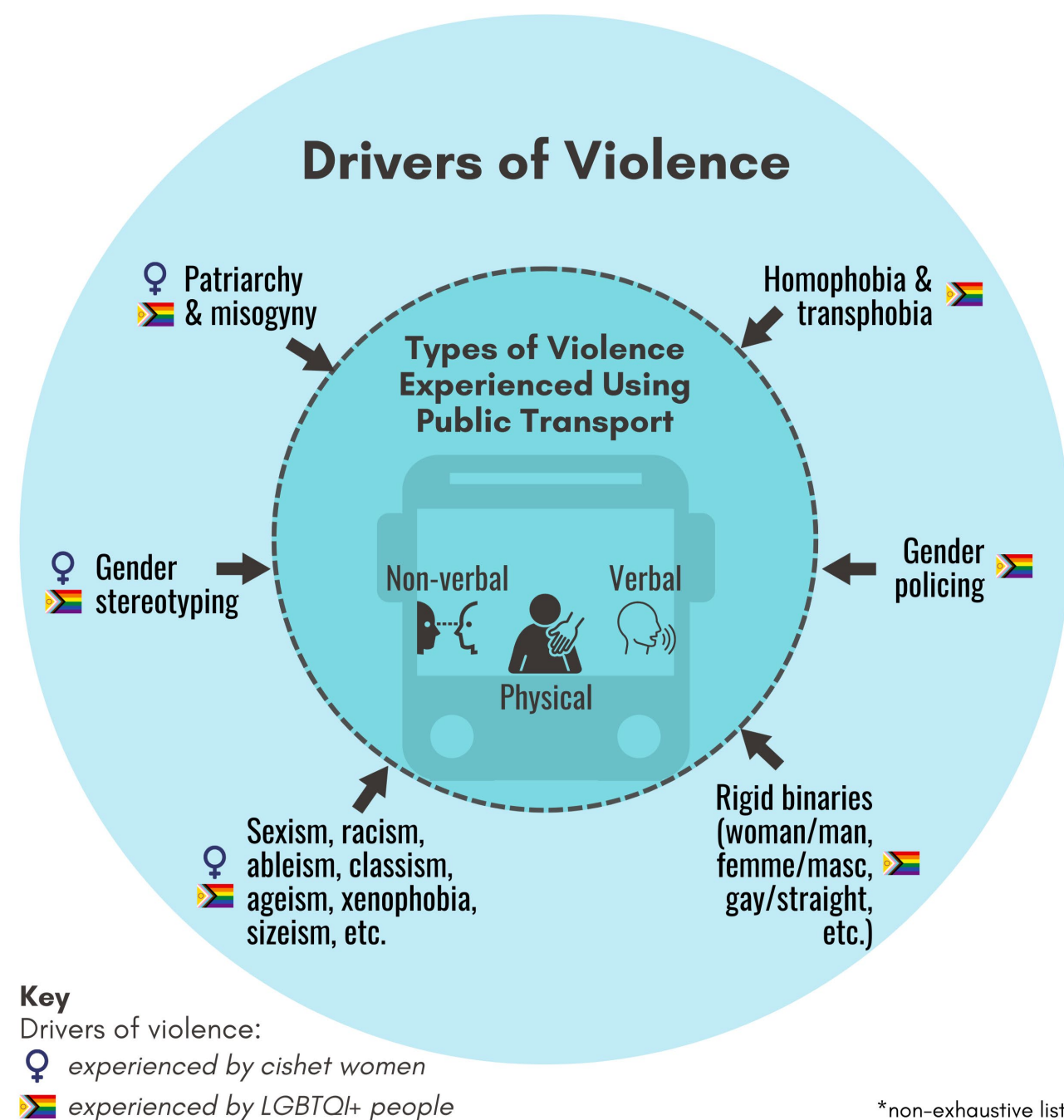


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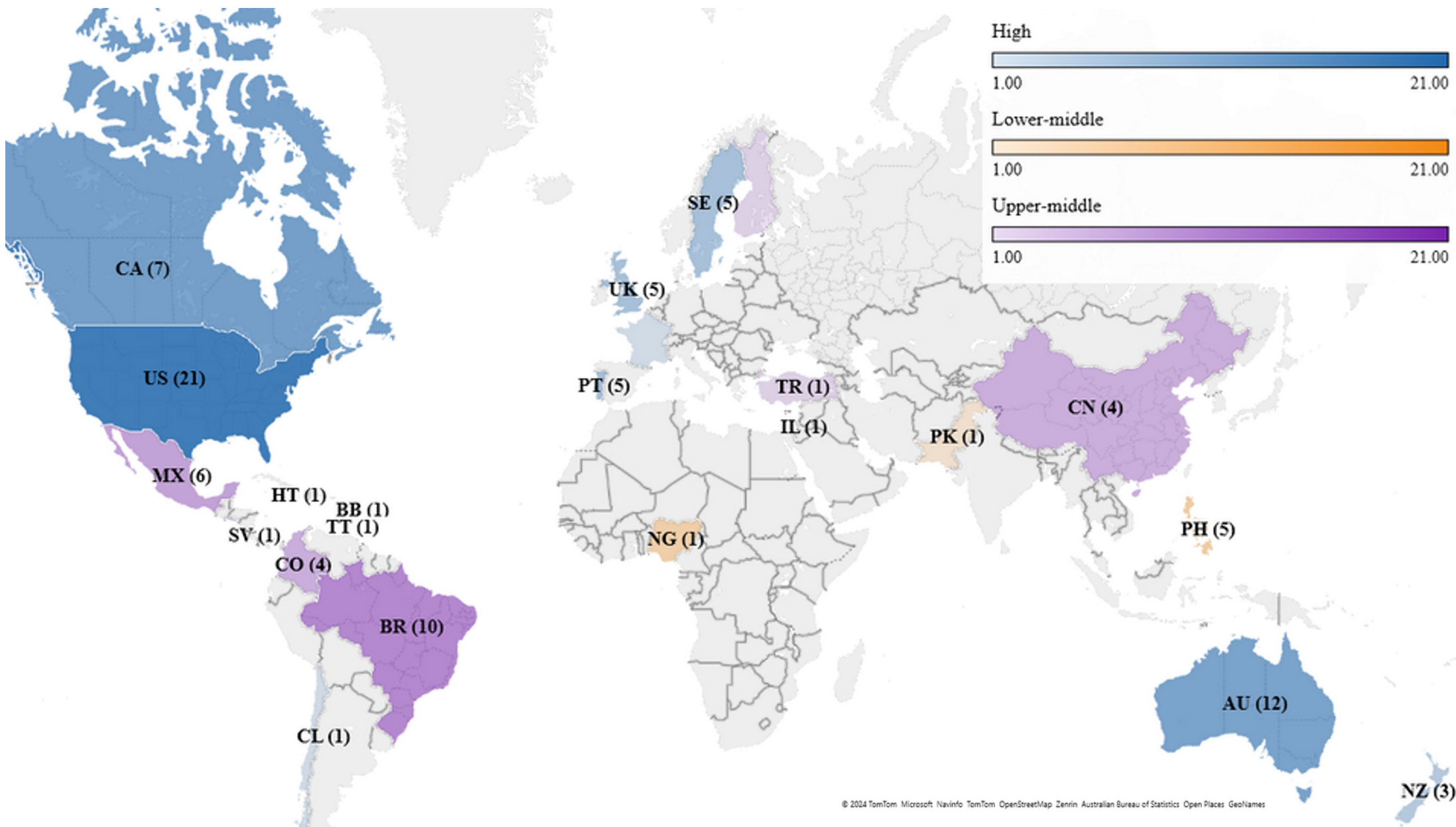
# Why LGBTQI+?

*No one deserves violence in any form, nor are they “asking for it.”*

**LGBTQI+:** Lesbian, Gay, Bisexual, Transgender (“Trans”), Queer, Intersex, & other marginalised sexualities, gender identities, & biological sex characteristics

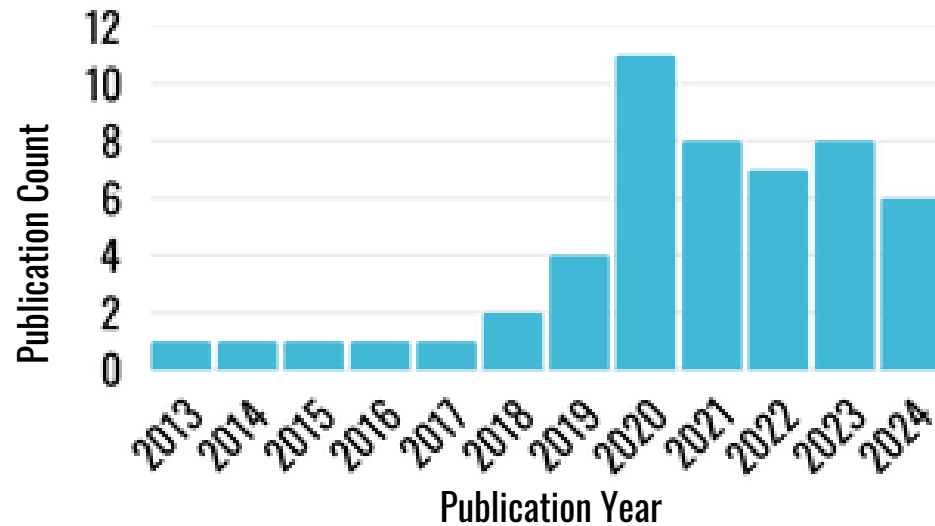


# Publication Locations

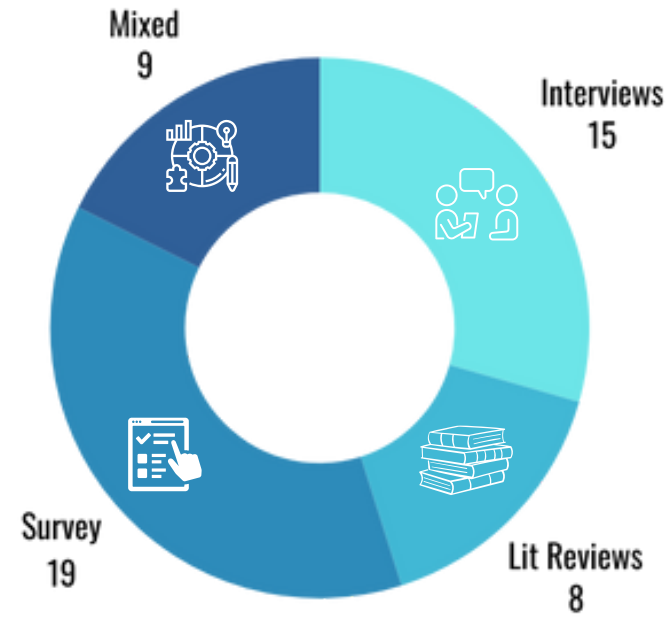


# Publication Stats

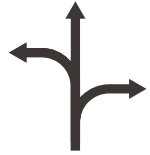
## Publication Years



## Data Collection Methods



# Coping Mechanisms



Adjusting route to avoid certain times, people, stops, stations, or places



Women-only safe spaces can exclude LGBTQI+



Waiting for buses and trains only at well-lit places



Lighting can facilitate excessive surveillance of LGBTQI+



Changing how they walk, speak, dress, or accessorise



Can include hiding queer identities and voices

# Coping Mechanisms



Waiting for or taking public transport only if friends or other people are around



LGBTQI+ riders may not receive support or be blamed



Avoiding taking public transport altogether



LGBTQI+ riders face additional economic barriers





# Recommended Strategies

## Policies & Training

Collect intersectional data to inform strategies



Inclusive of LGBTQI+ & other marginalised riders




Type		Point of Impact		
Physical	Procedural	Prevention	Intervention	Response
				

# Recommended Strategies

## Service Frequency & Reliability

Improve service quality to reduce exposure to risk during all parts of a journey

🏳️‍🌈 Consider LGBTQI+ neighbourhoods & events

Type		Point of Impact		
Physical	Procedural	Prevention	Intervention	Response
				

# Recommended Strategies

## Environmental Design & Activation

Improve lighting, maintenance, & natural surveillance strategies




Input from LGBTQI+ & other marginalised riders who face excessive surveillance


Type		Point of Impact		
Physical	Procedural	Prevention	Intervention	Response
				

# Recommended Strategies

## Emergency Response Staffing

Consider more security staff & non-policing solutions like crisis intervention teams

 LGBTQI+ & other marginalised folks are historically over-policed

Type		Point of Impact		
Physical	Procedural	Prevention	Intervention	Response
				

# Recommended Strategies

## Rider-Focused Programs & Campaigns

Provide an anti-violence PT environment that encourages & enables reporting



Reflect inclusion & protection of LGBTQI+ & other marginalised riders

Type		Point of Impact		
Physical	Procedural	Prevention	Intervention	Response

# Recommended Strategies

## Support When Violence Occurs

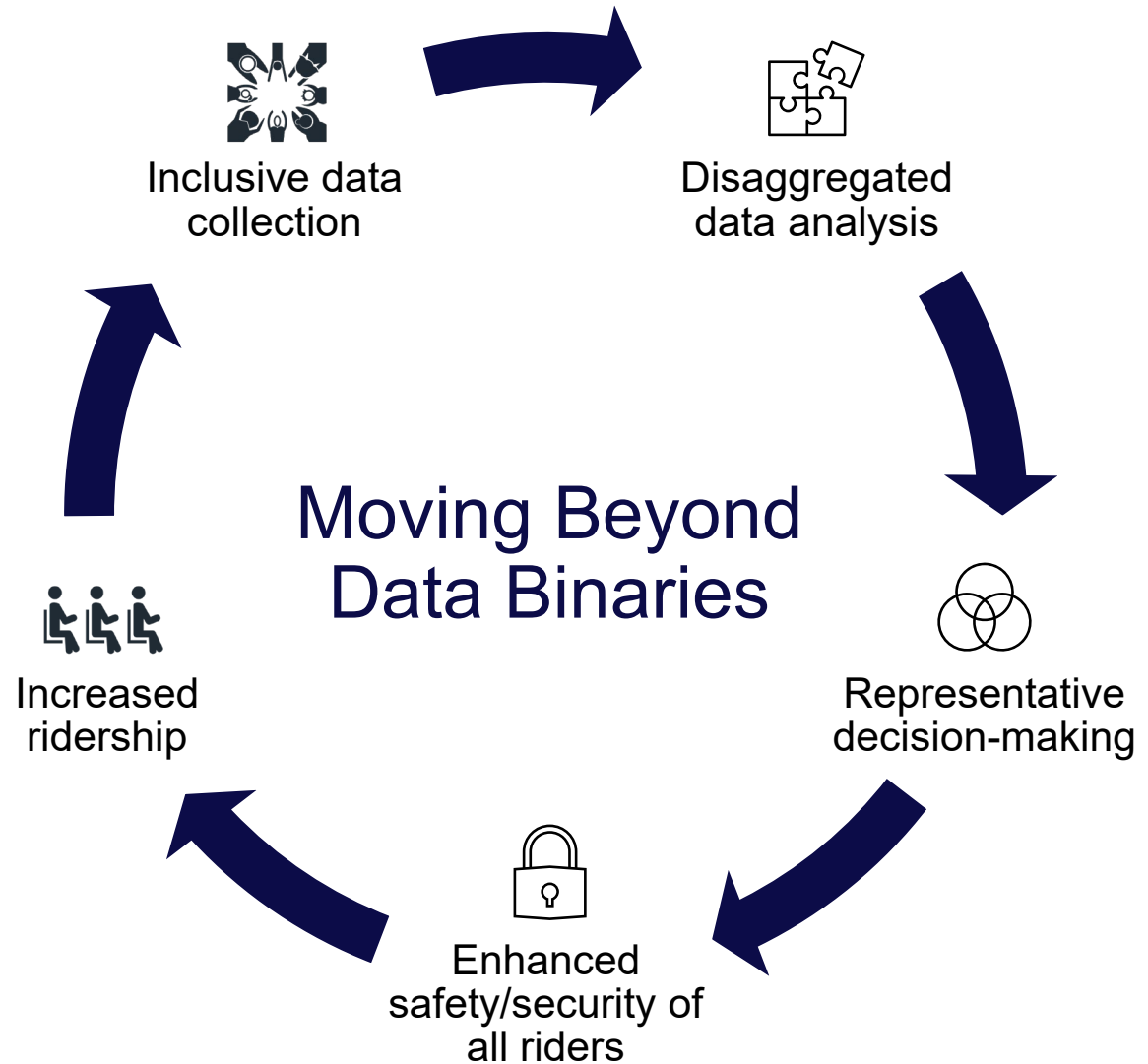
Educate staff about violence & ensure equal treatment and legal redress



Reflect inclusion of LGBTQI+ & other marginalised riders

Type		Point of Impact		
Physical	Procedural	Prevention	Intervention	Response

# In Summary...



Ngā mihi nui  
**Thank you very much**



Kirsten J. Tilleman

# References

- Abelson, M., Garcia, I., Khan, S., Lubitow, A., Puczkowskyj, N., & Zapata, M. (2023). Marginalized Populations' Access to Transit: Journeys from Home and Work to Transit (<https://rosap.ntl.bts.gov/view/dot/68933>)
- Angeles, L. C., & Robertson, J. (2020). Empathy and inclusive public safety in the city: Examining LGBTQ2+ voices and experiences of intersectional discrimination. *Women's Studies International Forum*, 78, 102313. <https://doi.org/https://doi.org/10.1016/j.wsif.2019.102313>
- Aversa, I., Coleman, T., Travers, R., Coulombe, S., Wilson, C., Woodford, M. R., Davis, C., Burchell, D., & Schmid, E. (2022). "I'm Always Worried": Exploring Perceptions of Safety and Community Inclusion Among Transgender People. *International Journal of Community Well-Being*, 5(1), 37-54. <https://doi.org/10.1007/s42413-021-00123-9>
- Ceccato, V. (2021). Sexual Violence in Public Transportation. In R. Vickerman (Ed.), *International Encyclopedia of Transportation* (pp. 576-583). Elsevier. <https://doi.org/https://doi.org/10.1016/B978-0-08-102671-7.10166-6>
- Ceccato, V., Gaudalet, N., & Graf, G. (2022). Crime and safety in transit environments: a systematic review of the English and the French literature, 1970–2020. *Public Transport*, 14(1), 105-153. <https://doi.org/10.1007/s12469-021-00265-1>
- Ceccato, V., Gliori, G., & Sundling, C. (2024). LGBTQI+ safety perceptions in transit environments. *Journal of Urban Mobility*, 6, 100087. <https://doi.org/https://doi.org/10.1016/j.urbmob.2024.100087>
- Ceccato, V., & Loukaitou-Sideris, A. (2020). Responding to Sexual Harassment on Transit (Transit Crime and Sexual Violence in Cities: International Evidence and Prevention (pp. 305-328). Taylor & Francis Group. <https://doi.org/10.4324/9780429290244>
- Ceccato, V., & Loukaitou-Sideris, A. (2021). Sexual Harassment in Transit Environments among College Students in the #MeToo Era: Reporting Evidence from Six Continents. *American journal of criminal justice*, 46(1), 107-129. <https://doi.org/10.1007/s12103-020-09583-9>
- Ceccato, V., & Loukaitou-Sideris, A. (2022). Fear of Sexual Harassment and Its Impact on Safety Perceptions in Transit Environments: A Global Perspective. *Violence against women*, 28(1), 26-48. <https://doi.org/10.1177/1077801221992874>
- Ceccato, V., Sundling, C., & Gliori, G. (2024). What makes a railway station safe and for whom? The impact of transit environments on passengers' victimisation and safety perceptions. *European Transport Research Review*, 16(1), 21. <https://doi.org/10.1186/s12544-024-00641-5>
- Crossland, K. (2023). *Queering public transport: Understanding access for Aotearoa queer communities*, University of Waikato].
- Das Neves, B., Unsworth, C., & Browning, C. (2023). 'Being treated like an actual person': attitudinal accessibility on the bus. *Mobilities*, 18(3), 425-444. <https://doi.org/https://doi.org/10.1080/17450101.2022.2126794>

# References cont.

- Ellis, S. J., McNeil, J., & Bailey, L. (2014). Gender, stage of transition and situational avoidance: a UK study of trans people's experiences. *Sexual and Relationship Therapy*, 29(3), 351-364. <https://doi.org/10.1080/14681994.2014.902925>
- Evens, E., Lanham, M., Santi, K., Cooke, J., Ridgeway, K., Morales, G., Parker, C., Brennan, C., de Bruin, M., Desrosiers, P. C., Diaz, X., Drago, M., McLean, R., Mendizabal, M., Davis, D., Hershow, R. B., & Dayton, R. (2019). Experiences of gender-based violence among female sex workers, men who have sex with men, and transgender women in Latin America and the Caribbean: a qualitative study to inform HIV programming [Article]. *Bmc International Health and Human Rights*, 19, 14, Article 9. <https://doi.org/10.1186/s12914-019-0187-5>
- Hawkey, A. J., Ussher, J. M., Liamputtong, P., Marjadi, B., Sekar, J. A., Perz, J., Ryan, S., Schmied, V., Brook, E., & Dune, T. (2021). Trans Women's Responses to Sexual Violence: Vigilance, Resilience, and Need for Support. *Archives of Sexual Behavior*, 50(7), 3201-3222. <https://doi.org/10.1007/s10508-021-01965-2>
- He, Q., Rowangould, D., Karner, A., Palm, M., & LaRue, S. (2022). Covid-19 pandemic impacts on essential transit riders: Findings from a U.S. Survey. *Transportation Research Part D: Transport and Environment*, 105, 103217. <https://doi.org/https://doi.org/10.1016/j.trd.2022.103217>
- Ison, J., Forsdike, K., Henry, N., Hooker, L., & Taft, A. (2023). "You're just constantly on alert": Women and Gender-Diverse People's Experiences of Sexual Violence on Public Transport [Article; Early Access]. *Journal of interpersonal violence*, 25. <https://doi.org/10.1177/08862605231186123>
- Ison, J., Forsdike, K., Henry, N., Hooker, L., & Taft, A. (2024). "I'll Try and Make Myself as Small as Possible": Women and Gender-Diverse People's Safety Work on Public Transport. *Violence against women*, 10778012241270279. <https://doi.org/10.1177/10778012241270279>
- Ivanova, O., & O'Hern, S. (2024). Mobility of non-binary and gender nonconforming individuals: A systematic literature review. *Journal of transport geography*, 121, 104008. <https://doi.org/https://doi.org/10.1016/j.jtrangeo.2024.104008>
- Kolysh, S. (2021). *Everyday Violence: The Public Harassment of Women and LGBTQ People*. Rutgers University Press. <https://doi.org/10.36019/9781978824034>
- Lampe, T. M., Reisner, S. L., Schrimshaw, E. W., Radix, A., Mallick, R., Harry-Hernandez, S., Dubin, S., Khan, A., & Duncan, D. T. (2020). Navigating stigma in neighborhoods and public spaces among transgender and nonbinary adults in New York City. *Stigma and Health*, 5(4), 477-487. <https://doi.org/10.1037/sah0000219>
- Linovski, O., Dorries, H., & Simpson, S.-A. (2021). *Public Transit and Equity-Deserving Groups: Understanding Lived Experiences* (<http://hdl.handle.net/1993/36137>)

# References cont.

Loukaitou-Sideris, A., & Ceccato, V. (2022). Sexual harassment on transit: a global, comparative examination. *Security journal*, 35(1), 175-204. <https://doi.org/10.1057/s41284-020-00271-1>

Lubitow, A., Abelson, M. J., & Carpenter, E. (2020). Transforming mobility justice: Gendered harassment and violence on transit. *Journal of transport geography*, 82, 102601. <https://doi.org/10.1016/j.jtrangeo.2019.102601>

Lubitow, A., Carathers, J., Kelly, M., & Abelson, M. (2017). Transmobilities: mobility, harassment, and violence experienced by transgender and gender nonconforming public transit riders in Portland, Oregon. *Gender, Place and Culture*, 24(10), 1398-1418. <https://doi.org/10.1080/0966369X.2017.1382451>

Marques, A. C. (2022). Displaying (Trans)Gender in Space and Time: Deconstructing Spatial Binaries of Violence and Security in the UK and Portugal. In M. Blidon & S. D. Brunn (Eds.), *Mapping LGBTQ Spaces and Places: A Changing World* (pp. 539-553). Springer International Publishing. [https://doi.org/10.1007/978-3-031-03792-4\\_31](https://doi.org/10.1007/978-3-031-03792-4_31)

McAndrews, C., Schneider, R. J., Yang, Y., Kohn, G., Schmitz, A., Elliott, F., Pittner, J., & Purisch, H. (2022). Toward a Gender-Inclusive Complete Streets Movement. *Journal of planning literature*, 38(1), 3-18. <https://doi.org/10.1177/08854122221087472>

Nourani, F., Antonello, S. L., Govone, J. S., & Ceccato, V. (2020). Women and LGBTI youth at target: Assessing transit safety in Rio Claro, Brazil. In V. Ceccato & M. Nalla (Eds.), *Crime and Fear in Public Places: Towards Safe, Inclusive and Sustainable Cities* (1st ed.). Taylor & Francis Group. <https://doi.org/10.4324/9780429352775>

Osborn, M. (2022). "Nobody Ever Correctly Recognizes Me": Nonbinary Presentation, Visibility, and Safety Across Contexts. In M. T. Segal & V. Demos (Eds.), *Gender Visibility and Erasure* (Vol. 33, pp. 51-69). Emerald Publishing Limited. <https://doi.org/10.1108/S1529-212620220000033011>

Otu, S. E., & Agugua, A. O. (2020). Lagos, Nigeria. In V. Ceccato & A. Loukaitou-Sideris (Eds.), *Transit Crime and Sexual Violence in Cities: International Evidence and Prevention* (pp. 80-86). Routledge. <https://doi.org/10.4324/9780429290244>

Panjwani, N. (2018). Mainstreaming Gender in Karāchī's Public Transport Policy. *European Journal of Sustainable Development*, 7(1), 355. <https://doi.org/10.14207/ejsd.2018.v7n1p355>

Pedersen, L. (2020). Moving Bodies as Moving Targets: A Feminist Perspective on Sexual Violence in Transit. *Open Philosophy*, 3(1), 369-388. <https://doi.org/10.1515/opphil-2020-0134>

Peterson, Z. D., Carver, D. N., Klann, E. M., Gesselman, A. N., Akers, B. M., & Garcia, J. R. (2023). Sexual Harassment and Assault in Public Spaces: Individual Vulnerability and Contextual Risk Factors. *Sex Roles*, 89(11), 685-701. <https://doi.org/10.1007/s11199-023-01416-3>

# References cont.

- Reisner, S. L., Hughto, J. M. W., Dunham, E. E., Heflin, K. J., Begenyi, J. B. G., Coffey-Esquivel, J., & Cahill, S. (2015). Legal Protections in Public Accommodations Settings: A Critical Public Health Issue for Transgender and Gender-Nonconforming People. *The Milbank quarterly*, 93(3), 484-515. <https://doi.org/10.1111/1468-0009.12127>
- Romero-Torres, J., & Ceccato, V. (2020). Youth safety in public transportation: The case of eastern Mexico City, Mexico. In V. Ceccato & M. Nalla (Eds.), *Crime and Fear in Public Places* (1 ed., Vol. 1, pp. 145-159). Routledge. <https://doi.org/10.4324/9780429352775-10>
- Sagaris, L., Baker, L., & Woodcock, A. (2024). Gender, transport, and health: Emerging trends and gaps in global research. In J. S. Mindell & S. J. Watkins (Eds.), *Advances in Transport Policy and Planning* (Vol. 13, pp. 383-438). Academic Press. <https://doi.org/https://doi.org/10.1016/bs.atpp.2023.11.007>
- Santoro, P. F., Harkot, M. K., Loukaitou-Sideris, A., Ceccato, V., Sundling, C., Romero-Torres, J., & Agrawal, A. W. (2020). Intersectionality of Transit Safety. In V. Ceccato & A. Loukaitou-Sideris (Eds.), *Transit Crime and Sexual Violence in Cities: International Evidence and Prevention* (1st ed.). Taylor & Francis Group.
- Schein, A., Bauer, G., & Pyne, J. (2014). *Avoidance of Public Spaces by Trans Ontarians: The Impact of Transphobia on Daily Life* (
- Scheuerman, M., Branham, S., & Hamidi, F. (2018). Safe Spaces and Safe Places: Unpacking Technology-Mediated Experiences of Safety and Harm with Transgender People. *Proceedings of the ACM on human-computer interaction*, 2(CSCW), 1-27. <https://doi.org/10.1145/3274424>
- Schwan, K., Versteegh, A., Perri, M., Caplan, R., Baig, K., Dej, E., Jenkinson, J., Brais, H., Eiboff, F., & Pahlevan Chaleshtari, T. (2020). *The State of Women's Housing Need & Homelessness in Canada: A Literature Review*. Canadian Observatory on Homelessness Press
- Shakibaei, S., & Vorobjovas-Pinta, O. (2021). Access to Urban Leisure: Investigating Mobility Justice for Transgender and Gender Diverse People on Public Transport. *Leisure sciences*, ahead-of-print(ahead-of-print), 1-19. <https://doi.org/10.1080/01490400.2021.2023372>
- Silan, M. A. A., Rivera, M. A. F., & Chulipa, L. T. (2016). Trans on Trains: Lived Experiences of Filipina Transgender Women on the MRT. *PHILIPPINE JOURNAL OF PSYCHOLOGY*, 49(2), 35-60.
- Song, Y., Fan, Y., hang, Y., & McDonnell, A. (2023). Advancing Equity in Accessibility and Travel Experiences: The Role of Gender and Identity. *M. D. o. Transportation*
- Sundling, C., & Ceccato, V. (2022). The impact of rail-based stations on passengers' safety perceptions. A systematic review of international evidence. *Transportation Research Part F: Traffic Psychology and Behaviour*, 86, 99-120. <https://doi.org/https://doi.org/10.1016/j.trf.2022.02.011>

# References cont.

- Tilleman, K. J., & Chowdhury, S. (2024). Role of Bystanders on Women's Perception of Personal Security When Using Public Transport. *Transportation research record*, 03611981241255901. <https://doi.org/10.1177/03611981241255901>
- Todd, J. D. (2023). Exploring young trans people's everyday experiences of 'out-of-placeness' and socio-bodily dysphoria. *Transactions of the Institute of British Geographers*, n/a(n/a). <https://doi.org/https://doi.org/10.1111/tran.12662>
- Transport for London. (2019). Travel in London: Understanding our diverse communities 2019 (<https://content.tfl.gov.uk/travel-in-london-understanding-our-diverse-communities-2019.pdf>)
- Transport for NSW. (2023). Safer cities survey report: perceptions of safety in public spaces and transport hubs across NSW. NSW Government. [https://www.transport.nsw.gov.au/system/files/media/documents/2023/Safer-Cities\\_Survey-Report\\_0.pdf](https://www.transport.nsw.gov.au/system/files/media/documents/2023/Safer-Cities_Survey-Report_0.pdf)
- Ussher, J. M., Hawkey, A., Perz, J., Liamputtong, P., Sekar, J., Marjadi, B., Schmied, V., Dune, T., & Brook, E. (2020). Crossing Boundaries and Fetishization: Experiences of Sexual Violence for Trans Women of Color. *Journal of interpersonal violence*, 37(5-6), NP3552-NP3584. <https://doi.org/10.1177/0886260520949149>
- Veale, J., Byrne, J., Tan, K., Guy, S., Yee, A., Nopera, T. w., & Bentham, R. (2019). Counting ourselves: the health and wellbeing of trans and non-binary people in Aotearoa New Zealand (Version: 23 September, 2019. ed.). [Transgender Health Research Lab, University of Waikato]. <https://hdl.handle.net/10289/12942>
- Weintrob, A., Hansell, L., Zebracki, M., Barnard, Y., & Lucas, K. (2021). Queer mobilities: critical LGBTQ perspectives of public transport spaces. *Mobilities*, 16(5), 775-791. <https://doi.org/10.1080/17450101.2021.1958249>
- Whitzman, C., Marathe, R., & Thompson, J. (2019). Tertiary Students' Public Transport Safety in Melbourne, Australia. Part Of a 17-city International Study. Transport, Health and Urban Design Research Hub Faculty of Architecture, Building and Planning. [https://msd.unimelb.edu.au/\\_\\_data/assets/pdf\\_file/0011/2993339/Tertiary-Students-Public-Transport-Safety-in-Melbourne,-Australia.pdf](https://msd.unimelb.edu.au/__data/assets/pdf_file/0011/2993339/Tertiary-Students-Public-Transport-Safety-in-Melbourne,-Australia.pdf)