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RESPONDING TO SEXUAL HARASSMENT ON TRANSIT

Towards an Agenda for Research and Practice

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In this chapter we draw from the results of the empirical work in the 18 case study cities to propose recommendations on how to respond to sexual harassment and sexual assault in transit environments. We first synthesize and critically review some of the key findings to set out a new research agenda, then outline a series of suggestions on how to address sexual harassment—first in each city, and subsequently as a global problem.

Responding to Harassment at Different Global South-Global North Contexts

So far, we have showed that sexual harassment is a global phenomenon, but how, where, and to what extent it happens may be quite context specific. For this reason, “one size fits all” responses to sexual harassment may not be valid. We, therefore, asked the authors of the 18 case studies to provide recommendations on how to address sexual harassment in their specific city and country contexts. The results are presented in Table 28.1 and are grouped in three categories: (1) city-specific research agendas; (2) design changes to the transit environment of cities; and (3) planning and policy changes in each city.

The discussion that follows is not meant to be a summary of the table but rather a critical reflection of the recommendations it presents. Recommendations can be distinguished between reactive (limiting mobility) and preventive (taking measures to minimize risk); some demand long-term investment or changes in people’s attitudes, while others impose minor changes and adjustments to the transit environments. We also reflect upon current and new technologies, as well as new advances in transportation that are bound to affect people’s mobility and safety.

TABLE 28.1 Suggestions for research and recommendations for practice.

	<i>Research</i>	<i>Design</i>	<i>Policy/Planning</i>
Tokyo, Japan	<ul style="list-style-type: none"> • Investigate what works and what does not in sexual harassment prevention. • Investigate what can improve the sense of security. • Study how current and new technologies can help reduce harassment. 	<ul style="list-style-type: none"> • Install good lighting at bus stops and station platforms. • Install CCTV cameras. • Enact a privacy conscious and easy to use reporting system. • Develop a real-time information system that shows which train cars are less congested. 	<ul style="list-style-type: none"> • Instigate detailed crime coding system for reporting sexual crime in transit environments. • Deploy visible staff. • Stop selling alcoholic drinks at station kiosks. • Increase human guardianship at particular times of the day/night. • Facilitate off-peak commuting.
Guangzhou, China	<ul style="list-style-type: none"> • Investigate how effectively security checks enhance safety perceptions of passengers. • Focus more on the safety situation of certain minority populations (e.g. the LGBTQI group and the disabled). • Determine the spatial distribution of sexual crime in transit settings and understand what types of environmental characteristics may generate crime. 	<ul style="list-style-type: none"> • Improve the lighting condition of bus stops. • Establish safe-guarded waiting zones for women both at the bus stop and platform during nighttime. • Install CCTV at the most problematic areas. • Have safety patrols in the metro during peak hours. 	<ul style="list-style-type: none"> • Instigate detailed and easy-to-follow guidelines for victims and witnesses to report crimes. • Better educate the public about the problem of sexual harassment. • Follow CPTED strategies (designing out crime), for example, increase visibility in transit environments. • Better maintain the routes linking public transport to residential areas. • Develop smart-phone apps showing transit timetables.
Manila, Philippines	<ul style="list-style-type: none"> • Systematically collect data as part of a national survey or local census to 	<ul style="list-style-type: none"> • Consider place-making as an important place activation strategy 	<ul style="list-style-type: none"> • Instigate policies to support those who report harassment/violence.

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TABLE 28.1 (Cont.)

	<i>Research</i>	<i>Design</i>	<i>Policy/Planning</i>
	<p>understand the nature of victimization and harassment across cities and to assess potential change. Collect information about victims of sexual harassment, by sex, age, disability status, and place of occurrence (in the previous 12 months) allowing us to understand the differences in the experiences of different subgroups, and informing appropriate gender mainstreaming policies.</p>	<p>to rejuvenate ignored and degraded transport environments that often encourage crime and sexual victimization and harassment. Place-making through cultural curation or tactical urbanism can encourage social interaction, improving our awareness and consciousness as place custodians and encouraging positive place values such as “showing respect” and “sharing spaces” with others.</p>	<ul style="list-style-type: none"> • Identify change champions—persons who would likely shepherd and advocate for safer public spaces. • Policymakers should be made aware and experience firsthand the conditions and situation of public transit environments in Manila to understand the lived experience of both public transport users and public transport drivers/operators and understand what change is needed and how change should occur.
Melbourne, Australia	<ul style="list-style-type: none"> • Identify the links between insufficient transit service for university students in the outer suburbs, low housing affordability in better served areas, and insecurity/harassment. • Explore the potential for collaboration with ride-sharing services for “the last kilometer” between 	<ul style="list-style-type: none"> • Install digital timetables at bus and tram stops. • Install better lighting and CCTV at tram stops. • Encourage more activity and less isolation near train stations, tram and bus stops and services, as these areas can be a focus for mixed-land-use intensification, including affordable housing. 	<ul style="list-style-type: none"> • Expand the focused campaign on reporting harassment undertaken by police and transit authority. • Public security officers should prioritize responding to assault and harassment instead of having as a primary focus fare evasion. • Instigate anti-racism and anti-

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TABLE 28.1 (Cont.)

	<i>Research</i>	<i>Design</i>	<i>Policy/Planning</i>
	transit stops and homes.		<p>homophobia training for public security officers.</p> <ul style="list-style-type: none"> Recognize and respond to the fact that low transit frequency, resulting in scant services in urban periphery and overcrowding in central city, contributes towards assault and harassment.
Lagos, Nigeria	<ul style="list-style-type: none"> Examine the safety and comfort level of female undergraduates of the University of Lagos. Document the various harassment crimes, mostly encountered by Nigerian female undergraduates using public transport system. Determine coping mechanisms among female undergraduates who are using the public transport system in Lagos. Build on the emerging data and suggest new approaches to the design and delivery of urban transport services to support 	<ul style="list-style-type: none"> Install digital timetables. Encourage more women to get prominently involved in (re) design and planning of transport services. Install good lighting at bus stops and station platforms. Install CCTV cameras. Improve maintenance of transit facilities. Improve guardianship in transit nodes that are isolated/consider relocation of bus stops and crime prevention through environmental design (CPTED) measures 	<ul style="list-style-type: none"> Train and tram transportation as the most dominant mode of transportation in developed countries should be at the center of transportation policy and transportation investments in Nigeria.

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TABLE 28.1 (Cont.)

	<i>Research</i>	<i>Design</i>	<i>Policy/Planning</i>
	the complex needs of all urban residents in Nigeria.	such as increased visibility, lighting, alarms, phones, etc.	
Bogotá, Colombia	<ul style="list-style-type: none"> • Examine the role of social disorganization factors (disadvantage, turnover, and population heterogeneity) in encouraging sexual harassment. • Compare problematic stations, routes and times of travel with safe ones to understand differences. • Examine repeat victimization among students. • Analyze police response to cases of sexual harassment in public transport. • Examine the experience of victims reporting a case of sexual harassment. • Examine the impact of sexual harassment on mental health and students' performance at the university. 	<ul style="list-style-type: none"> • Increase the number of vehicles during peak hours to decrease waiting times and overcrowding. • Increase visibility and guardianship after 6pm in vehicles, stations, and bus stops. • Install cameras in problematic routes, stations and stops. • Develop or allow alternative modes of transport (Uber and other car sharing platforms) to decrease overcrowded services. • Restrict the access of panhandlers to bus stops, platforms and vehicles. • Increase patrolling of vehicles in TransMilenio (TM) and buses. 	<ul style="list-style-type: none"> • Produce a social marketing campaign to promote norms of respect and identify appropriate behaviors when traveling in public transport. • Cast deterrent messages that clearly identify different types of sexual harassment as a crime and warn about prosecution of cases of sexual harassment. • Make the public aware of the recording cameras (CCTV). • Promote a supportive attitude from bystanders to potential victims and offer suggestions as to "how to respond" when a member of the community is being harassed.
São Paulo, Brazil	<ul style="list-style-type: none"> • Identify how to prevent sexual 		<ul style="list-style-type: none"> • Demand from bus operators more

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TABLE 28.1 (Cont.)

<i>Research</i>	<i>Design</i>	<i>Policy/Planning</i>
<p>harassment on the way to/at the bus stop, and not just inside the bus and metro/train system.</p> <ul style="list-style-type: none"> • Understand better the challenges that different groups face when riding transit so as to improve their experience of using public transportation. • Identify ways to reduce fees paid by transport users on connections with other services achieving a more unified transportation system and increasing the use of public transportation. 	<ul style="list-style-type: none"> • Implement the RTI system in most of bus stops. • Better designs of bus stops, for example without elements that a person can hide behind, with more visibility for people passing by. • Install automatic doors between train and platforms in more train/metro stations. • Avoid long distances between platforms, with long stairs and ramps. • Improve the environment around the train/metro stations and bus stops, with better lighting, mixed use zoning, better location choices, in places with high pedestrian traffic. 	<p>responsibility about the security of the passengers waiting at or walking to the bus stops.</p> <ul style="list-style-type: none"> • Promote improved interaction between transit operators and public safety authorities. • Expand the metro/train lines, offering more bus fleets, so that transit reaches more distant places, at the same time, making trains less crowded. • Improve reliability of public transportation. • Reduce the time people wait at bus stops and platforms and define different ranges of waiting time in areas with high rates of sexual harassment and crime. • Implement a true mobility agenda that breaks with the culture of private transportation and makes public transport the most important travel mode. • Make public transport services more accessible, in terms

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TABLE 28.1 (Cont.)

	<i>Research</i>	<i>Design</i>	<i>Policy/Planning</i>
Rio Claro, Brazil	<ul style="list-style-type: none"> • Identify the most vulnerable bus stops and their most critical times of the day/night. • Identify the most adequate approaches for educational campaigns to persuade men not to harass women, and persuade women to report harassment crimes. 	<ul style="list-style-type: none"> • Install good lighting at bus stops and surrounding areas. • Relocate some problematic bus stops to safer places nearby. • Install CCTV cameras with face recognition software, both on the buses and at bus stops. • Install digital time-tables at bus stops. • Install digital displays on buses to run sexual harassment prevention education campaigns and real-time messaging. 	<p>of cost and access, and safer for citizens.</p> <ul style="list-style-type: none"> • Increase policing at the most critical times and at the most vulnerable bus stops. • Extend the existing police camera monitoring system to include buses and bus stops and include face recognition. • Install geolocation and tracking systems on buses to feed digital time-tables at bus stops. • Create regular and massive educational anti-harassment campaigns based on the best detected approaches. • Create educational campaigns for different age groups at schools.
Los Angeles, USA	<ul style="list-style-type: none"> • Examine harassment at different settings of the transit environment. • Understand how sexual harassment affects different sub-groups. • Examine the impact of new technologies on 	<ul style="list-style-type: none"> • Pay attention to first/last mile transit connections; have well-lit, well-maintained routes. • Install good lighting at bus stops and station platforms. • Install CCTV cameras. 	<ul style="list-style-type: none"> • Organize public education campaigns at schools against harassment. • Enact anti-harassment campaigns through social and print media and signage on buses and trains.

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TABLE 28.1 (Cont.)

	<i>Research</i>	<i>Design</i>	<i>Policy/Planning</i>
	<ul style="list-style-type: none"> women's safe travel. Disseminate findings beyond academia. 	<ul style="list-style-type: none"> Install digital time-tables at bus stops. Choose the location of bus stops to be near people and activities, allowing natural surveillance. Pay attention to bus/bus stop design to avoid obstructed views, nooks and corners where people can hide. Keep bus stops and public streets clean from litter. 	<ul style="list-style-type: none"> Instigate a clear and easy protocol for reporting harassment incidents. Instigate strict penalties for perpetrators. Improve transit frequency during rush hour to reduce bus overcrowding. Train bus drivers, transit staff to be sensitive and know how to respond to harassment incidents.
San José, USA	<ul style="list-style-type: none"> Identify high-crime stations and bus stops and study their physical and social characteristics. Evaluate sexual harassment prevention strategies to understand what works and what doesn't. Instigate research with a focus on <i>the whole journey approach</i> to identify the settings that generate more fear. Study the potential of new technologies to create safer environments for women. Investigate why certain settings 	<ul style="list-style-type: none"> Include women in the design and planning of transport facilities and services. Install digital time-tables at bus stops. Install good lighting at bus stops and station platforms. Install CCTV cameras. Improve policing/surveillance in isolated transit nodes with high rates of crime. Utilize environmental design (CPTED) to increase natural surveillance opportunities, lighting, alarms, phones, 	<ul style="list-style-type: none"> Have all materials aimed at the traveling public available in multiple languages and have programs designed to be sensitive to different cultural transitions.

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TABLE 28.1 (Cont.)

	<i>Research</i>	<i>Design</i>	<i>Policy/Planning</i>
	become crime places and others don't.	and cleanliness of transit facilities.	
Vancouver, Canada	<ul style="list-style-type: none"> • Identify bus and SkyTrain stations where riders feel the most unsafe and conduct an environmental scan to determine what preventive measures can be implemented to increase feelings of safety. • Determine which strategies would be most effective to make riders feel safe through research/focus groups (e.g. women, LGBTQI, minorities, etc.). • Collect data on transit crimes that are separate from regular police incidents to make a distinction between the two environments and can allow for comparison/research. 	<ul style="list-style-type: none"> • Increase lighting at bus stops. • Implement more digital timetables at major bus stops/exchanges (currently only at SkyTrain stations). • Re-consider the placement of certain bus stops (e.g. ensure bus stop is not in an isolated area). • Re-configure seating to allow more easy access/free movement within the train to avoid feelings of being "trapped". • Conduct more CPTED/environmental scans/detailed assessments of potential new bus stops/SkyTrain stations before construction to identify vulnerable areas and implement effective strategies to combat against new issues. 	<ul style="list-style-type: none"> • Patrol more bus stops and surrounding nearby environment of SkyTrain stations with the use of Transit Police (currently only at SkyTrain stations). • Use undercover transit officers on buses to routinely monitor space/intervene in potential situations. • Utilize more transit officers in all aspects of the transit environment and not just at some SkyTrain stations. • Liaise with police, city planners, and the public when implementing new prevention strategies/new construction of stations/stops/routes. • Employ more public campaigns that are in multiple languages to educate riders about travel etiquette and resources for help in the event of an

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TABLE 28.1 (Cont.)

	<i>Research</i>	<i>Design</i>	<i>Policy/Planning</i>
			<p>emergency/dangerous situation.</p> <ul style="list-style-type: none"> • Conduct regular evaluations of bus stops/train stations/transit routes in consultation with actual riders to determine best practices.
Mexico City, Mexico	<ul style="list-style-type: none"> • Quantify the impact of new measures such as pink (women-only) transport and new police modules located in transport system facilities for reporting sexual aggressions. • Relate the travel experience with the characteristics of the mode of transport to propose mitigation measures for the different travel modes (formal or paratransit). • Research what happens after victimization takes place. • Analyze the processes of reporting to see why it is ineffective. 	<ul style="list-style-type: none"> • Show in real time the timetables of established transport services (Metro or Metro-bus) and less formal services (combi, minibus). • Design the modal exchange infrastructure with a crime prevention approach such as: short walking distances, lighting, or police surveillance. • Increase the quality levels of transportation services that currently have low standards (combi, minibus). • Provide transportation infrastructure maintenance (transit vehicles, stops and stations, and access routes). • Identify the stations, modal exchange points or public transport routes with the highest rates of 	<ul style="list-style-type: none"> • Carry out educational and social awareness programs that talk about respect for women riders. • Amplify police security during critical times (at night and early in the morning). • Interweave security technology systems to extend their impact radius; for example, not only placing CCTV cameras or panic buttons on vehicles but also linking them to control and surveillance systems to have a real-time reaction. • Change the process of reporting to make it easier and less intimidating for victims to report sexual criminal offenses.

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TABLE 28.1 (Cont.)

	<i>Research</i>	<i>Design</i>	<i>Policy/Planning</i>
		sexual violence incidents and design mitigation programs according to the characteristics of the place (infrastructure, schedules).	
Stockholm, Sweden	<ul style="list-style-type: none"> • Identify the most problematic stations or bus stops that have high rates of sexual crimes. • Detect what does work and what does not in sexual harassment prevention. • Understand why women feel safer onboard or at stations and less safe on the way to train or bus stops. • Explore the requirements for a <i>whole journey approach</i> for security from harassment. • Determine how current and new technologies (e.g. micro-mobility, mobility as a service—MaaS, drones, body worn cameras (BWCs), Uber, apps, etc.) lead to safer environments for women. 	<ul style="list-style-type: none"> • Install digital timetables. • Involve more women in the (re) design and planning of transport services. • Install good lighting at bus stops and station platforms. • Install CCTV cameras at transit stops. • Improve the maintenance of transit settings. • Improve guardianship in transit nodes that are isolated or consider their relocation. • Instigate crime prevention through environmental design (CPTED) measures such as increased visibility, lighting, alarms, phones, etc. • Plan transport nodes as part of the nighttime economy (NTE). 	<ul style="list-style-type: none"> • Develop a detailed coding system for reporting sexual crimes in transit environments. • Use the social and print media and install signs on buses and trains against sexual harassment. • Make transit staff visible. • Ensure that fellow passengers can be a valuable source of additional surveillance and reporting through multi-agency consultation between transport agencies, police, women’s groups and the wider community. • Extend safety programs to areas immediately around public transport (the whole journey approach). • Increase human guardianship at

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TABLE 28.1 (Cont.)

	<i>Research</i>	<i>Design</i>	<i>Policy/Planning</i>
	<ul style="list-style-type: none"> Evaluate the “necessary situational conditions” for sexual harassment in transit environments by investigating why certain settings become crime places and others don’t. 		<p>particular times of the day/night.</p> <ul style="list-style-type: none"> Engage safety experts to examine responses to sexual crime. Recruit more women in public transportation sector.
Huddinge	Same as Stockholm.	Same as Stockholm.	Same as Stockholm.
	<ul style="list-style-type: none"> Investigate the causes of differences in victimization rates and safety perceptions of women between the Stockholm and Huddinge samples. 		
Lisbon, Portugal	<ul style="list-style-type: none"> Identify the most problematic spots in the city—Conduct this identification together with a diverse group of women, such as women in different stages of their life, of different sexual orientation, and with other sub-groups of women. Compile and systematize collected data (regarding harassment), and analyze and monitor harassment patterns. 	<ul style="list-style-type: none"> Install better lighting at bus stops, tube/train/boat stations and other transport nodes. Relocate isolated bus stops to nodes where there are more people passing by on the street or close to shops/cafes. Ensure that people at bus stops have visibility of the area around the stop (avoid opaque bus stop shelters). Install digital timetables. 	<ul style="list-style-type: none"> Inform transport providers, so that they recognize that there is a harassment problem in public transport and transport stations/stops/nodes. Re-plan some routes of the transport network so that there is a higher frequency of transport, especially during nighttime. Coordinate several transport modes, and schedules, to assure seamless

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TABLE 28.1 (Cont.)

	<i>Research</i>	<i>Design</i>	<i>Policy/Planning</i>
	<ul style="list-style-type: none"> • Develop and test methodologies to promote assessments of prevention strategies which may lead to improvements at the local level. 	<ul style="list-style-type: none"> • Use CPTED (crime prevention through environmental design) techniques to enhance the design of critical spots/stations, and surrounding areas, where harassment incidents are reported. 	<p>mobility for all passengers, even during nighttime.</p> <ul style="list-style-type: none"> • Improve passenger information—timetables, frequency, routes. • Create a proper procedure to report harassment, at all transport modes. • Provide training to workers dealing with harassment reports so that complaints are well taken care of and victims are supported. • Employ more police at critical spots where harassment has been reported. • Organize public campaigns for the general population regarding harassment prevention. • Increase women’s participation in the planning of public transport services and the design of public spaces.
London, UK	<ul style="list-style-type: none"> • Identify the most problematic stations or bus stops. • Detect what works and what doesn’t in sexual harassment prevention. 	<ul style="list-style-type: none"> • Install digital timetables. • Include women in the planning of transit services and the (re)design of transit environments. 	<ul style="list-style-type: none"> • Use the social and print media and install signs on buses and trains to make the problem of sexual harassment visible to the general public.

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TABLE 28.1 (Cont.)

	<i>Research</i>	<i>Design</i>	<i>Policy/Planning</i>
	<ul style="list-style-type: none"> • Determine in what ways new technologies can help create safer environments for women. 	<ul style="list-style-type: none"> • Install good lighting at transit environments. • Install CCTV cameras. • Improve maintenance and upkeep of transit environments. • Improve guardianship/policing of transit nodes that are isolated or consider their relocation. • Enact CPTED strategies to enhance the visibility of transit environments. 	<ul style="list-style-type: none"> • Have more transit staff at problematic locations. • Enact campaigns that inform transit riders to not be passive bystanders if they are witnessing sexual harassment incidents. • Extend policing and surveillance to areas immediately around public transport. • Increase human guardianship at particular times of the day/night. • Recruit more women in the public transportation sector.
Paris, France	<ul style="list-style-type: none"> • Develop research tools that are specifically designed to analyze sexual violence in public transport. • Rely on mixed methods (quantitative and qualitative) to analyze this phenomenon. • Assess how sexual violence in public transport affects specific groups (e.g., teenagers, the elderly, LGBTQI, users with reduced mobility). 	<ul style="list-style-type: none"> • Improve visibility of alarm devices in the transit environment. • Improve visibility/display of transit rules and laws on sexual violence in the transit environment. • Develop “boa” carriages for the metro, tram, RER and train: wagons are not separated and users can freely walk from one to another. • Improve accessibility for users with reduced mobility 	<ul style="list-style-type: none"> • Remove/ban sexist advertising from the transit environment. • Conduct awareness campaigns against sexual violence in public transport that depicts this phenomenon realistically. • Conduct campaigns to inform users about their rights if they are victims of sexual violence in public transport, and how they can react if they witness this phenomenon.

(Continued)

TABLE 28.1 (Cont.)

<i>Research</i>	<i>Design</i>	<i>Policy/Planning</i>
<ul style="list-style-type: none"> • Map sexual violence for each type of public transport (i. e., metro, tram, RER, train, bus). • Evaluate measures and policies in a rigorous, transparent, and independent way. 	<p>who may be or feel vulnerable towards sexual violence.</p>	<ul style="list-style-type: none"> • Develop on-demand stops for the bus, especially at night: riders can ask the driver to get out of the bus between two bus stops, thus reducing the walking distance to their destination. • Facilitate reporting and filing of a complaint in case of sexual violence in public transport: online complaint or pre-complaint, enable transit staff to record complaints. • Collect riders'/ rider groups' opinions in order to identify their specific security needs, to include them in policy-making processes, and to develop security measures accordingly. • Include the issue of sexual violence as a key element of future transit projects (e.g., Grand Paris Express, opening of subway and tram lines at night).

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TABLE 28.1 (Cont.)

	<i>Research</i>	<i>Design</i>	<i>Policy/Planning</i>
			<ul style="list-style-type: none"> • Improve cooperation between police services, transit operators, and researchers/research organisms, in order to rely on evidence-based policing to guide and evaluate practitioners.
Milan, Italy	<ul style="list-style-type: none"> • Identify most problematic stations or bus lines and daily and night patterns. • Identify most problematic harassment issues in transit experienced by the population and suggest possible ways to address them. • Enhance awareness among policy makers about the issue which is currently not at the center of the debate in Italy. 	<ul style="list-style-type: none"> • Place “help alarms” in the most problematic platforms and bus stops. • Improve maintenance and lighting. • Enact crime prevention through environmental design (CPTED) measures at transit settings to increase visibility and opportunities for natural surveillance. 	<ul style="list-style-type: none"> • Enhance awareness among the population about sexual harassment. Organize public outreach campaigns about the topic. • Advertise where to go to report a sexual harassment or who to contact (which telephone number). This can be useful both for victims and witnesses. • Increase policing at problematic transit settings at particular times of the day/night. • Promote a cultural change starting from specific/tailored education programs in primary and secondary schools.

Source: Authors.

Research

Sexual crimes against women in transit represent a rather invisible problem. The message is unanimous across all case studies: sexual harassment and sexual assault against women are highly underreported crimes. Underreporting or low reporting rates have many causes; some of the most known relate to societal norms of behavior between men and women in public places (leading to normalization of certain sexual harassment behaviors), but may also be affected by “what is there” in terms of infrastructure that enables victims to report a crime, as discussed in Chapter 24.

Research on sexual harassment in public places also requires detailed data collection. The current methods of crime coding in many cities do not take into account the spectrum of sexual crimes, from serious crimes such as rape and sexual assault, to other coercive acts such as inappropriate touching, to verbal offenses (e.g. unwanted sexual comments). Further research is needed in each context to understand where the problem lies and how to deal with it. In cases of sexual violence, for example, there may be variations of victimization by type (verbal, non-verbal, physical) and transportation mode. There may also be temporal variations such as differences between weekdays and weekends and between peak and off-peak hours. Without this contextual perspective, policy makers miss opportunities to address the problem systematically. There is also a need to develop appropriate methodologies for data collection and analysis that take into account the different parts of the stations and/or bus stops, as well as the trip to/from the transit station or stop.

Avoidance of certain stations and/or routes is a common precaution taken by students around the world to prevent exposure to sexual harassment. Some of these precautions limit their mobility; others may help empower them to minimize risk as indicated in Chapter 26 of this book. Further research is suggested to better understand these behavioral changes triggered by the risk of victimization and/or perceived lack of safety. This is particularly important for women who compose a large share of the group known as “transit captives,” namely, those with relatively little access to non-public forms of transportation, who are therefore overly reliant on public transit. They constitute millions of passengers all around the world. For those in countries of the Global South, poor safety means impaired mobility, which directly affects the life chances of many women and girls.

The “whole journey approach” to safety is fundamental in the context of the United Nation’s 2030 Agenda and its goals for sustainable development. Only when we focus on safety patterns over time and space will we be able to achieve safe travel from door to door. The empirical work in the 18 cities showed that women riders often feel safer onboard the transit vehicle or at the station platform (even though these are settings where overcrowding significantly facilitates groping), and less safe on the way to the train station or

waiting at the public environment of the bus stop. Studies find that different types of crime take place in different environmental conditions ((Loukaitou-Sideris, 1999), and this seems to be true about the different types of sexual crimes. This necessitates a research agenda that inquires about the variations of safety risk during the whole trip.

We also need to understand that the risk of victimization is unequally distributed in society, and as such, interventions must be tailored to the needs and particularities of different groups. Even though our study shows that women are overrepresented as victims of sexual harassment in transit environments, women are far from a homogenous group; and this has an impact for both research and policy implications (Loukaitou-Sideris, 2016). Indeed, the intersectionality of women's safety is a recurring topic in this book and has been illustrated in Chapter 23. The case studies also showed that a segment of male students are also victimized by sexual harassment. More research is necessary to understand the characteristics of harassment against male victims, and who the offenders are.

Focusing on women victims, it is essential to understand the differential levels of vulnerabilities; in particular, the vulnerabilities of women with disabilities, who are often an easy target of sex offenders (Iudici et al., 2017). There is also a need to better understand how sexual harassment affects other sub-groups of women, such as older or younger women, minority women, transit captives, and low-income women. We need to study norms and behavior patterns as well as possible solutions that are tailored to the safety needs of these diverse women travelers (Whitzman, 2007; Smith, 2008). The overarching question is: How do we make transit safer for all groups, in particular for vulnerable groups to maximize their mobility?

Future research should also focus on transit safety beyond the simple binary category of women/men. In this study, we made a first attempt to examine the impact of sexual orientation on sexual victimization in transit environments, and some researchers collected information about the LGBTQI status of their student sample. However, the small numbers of samples did not allow for a robust analysis of the victimization patterns of this subgroup, and therefore, our analysis in this book focused primarily on women who were non-LGBTQI. How sexual harassment in transit environments affects gender non-conforming and transgender individuals is a topic that needs further exploration.

Another important area of future research is to identify settings and places that should be improved to decrease victimization and maximize safety perceptions. Transport nodes with signs of poor social control, poor maintenance and lighting, signs of social disorder, and desolate settings were often mentioned by students as problematic. Crime Prevention Through Environmental Design (CPTED) strategies can provide useful guidelines for interventions, as illustrated in Chapter 25, but further research is needed to evaluate whether and how

individual characteristics of passengers *interact* with types of settings in transit environments, be it a rail station or a bus stop. Detailed records of events at different parts of the transportation system in peak and off-peak hours would facilitate intervention measures.

Knowledge needs to reach out to practice. This requires creation of arenas of contact (interface) between academia and decision makers as well as practitioners. Moreover, there is a need to further develop groundbreaking methodologies to best *translate* and *transfer* scientific knowledge to practical action (Laub, 2012). At the same time, academics could learn from security experts' best practices of preventing transit crime, and in particular sexual harassment. However, academics and security practitioners often do not interact, usually attend different conferences, and read different publications. As a result, much of the current knowledge remains siloed in universities or professional cycles. In contrast, we need to detect opportunities and obstacles for translating knowledge into practice, and practice into knowledge, and develop detailed guidelines of what must be done to achieve successful translational processes.

Current and new monitoring technologies, such as CCTV, body worn cameras, and apps, can be particularly effective in promoting safety (Ariel et al., 2018; Piza et al., 2019; Ceccato, 2019) in combination with traditional security routines in transit environments, while data collection methods can be assisted by new digital technologies such as crowdsourcing. However, it is still unclear what kinds of opportunities and risks digitalization, ICT solutions, and new mobility services could offer in promoting safety for individuals in the near future. In particular, research is necessary to understand how current and new technologies and new advances in transport (e.g. micro-mobility, mobility as a service—MaaS, drones, body worn cameras (BWCs), Uber, apps etc.) may lead to safer environments for women.

Design

Research has long suggested that certain environmental characteristics have a positive effect on reducing crime rates and enhancing feelings of safety, while others have adverse impacts and seem to relate to higher crime incidence and/or fear. As suggested by Loukaitou-Sideris (2016) the design of transit vehicles, stops and systems can contribute to comfort and perceived safety for all travelers, especially women. As she notes, “placing bus stops in places that facilitate natural monitoring, as well as good lighting, makes waiting for the bus less stressful.” However, there is a lack of research as to what types of factors may facilitate different types of harassment—namely verbal, non-verbal, or physical (see Figure 1.1 in Chapter 1). Crowded rush hours might just provide the right opportunity for groping and all sorts of inappropriate and unwanted sexual behaviors (Madan and Nalla, 2015; Natarajan,

2016); meanwhile an empty bus stop in the late evening hours may just offer the anonymity that an offender needs to commit a rape (Hewitt and Beauregard, 2014; Gekoski et al., 2015; Ceccato et al., 2017). Based on the local contexts of the case studies and the literature review discussed in Chapters 2 and 25, we propose a number of changes and improvements in these transit environments to tackle transit crime, and in particular sexual transit crime.

Good lighting at bus stops and station platforms is perhaps one of the unquestionable interventions (mentioned by most students) to reduce risk of crime and improve people's perceived safety. The physical environments of the stations/bus stops and the routes that lead to them (first/last mile connections to transit) should be well-lit and well-maintained. Presence of CCTV has also been suggested as an important element that may deter sexual offenders from acting, while digital timetables, especially if their information can be accessed via a smartphone App, help minimize long waits for the transit vehicle, and hence exposure to possible harassment. Additionally, the design of the transit setting can help minimize dark corners and nooks and ensure high visibility from bystanders and surrounding establishments.

Overcrowding facilitates groping. Many transit operators seek to improve transit frequency during rush hours to reduce overcrowding. In certain cases, they could also consider adjusting the size of the transit vehicles according to passenger density for peak and off-peak hours.

In general, CPTED strategies that have been shown to have a positive impact on reducing transit crime (Cozens and Love, 2015) should also have a positive effect on making sexual harassment more difficult for offenders.

Policy

In terms of policies that can help minimize the risk of harassment, the relatively simple measure of "on-demand stops," especially at night, which has been tried in certain cities in Europe and elsewhere, lets women disembark from the bus at places closer to their destination than the bus stop, thus helping reduce the risk of stalking. Other policies that respond to the risk of harassment relate to the improvement of guardianship in transit nodes that are isolated; however, it is difficult to deploy police or transit personnel in every possible hot spot of transit crime, and prioritization for police/staff deployment should focus on the most problematic spots.

Transit and policing agencies can also employ ICT technologies and social media to faster inform passengers and better enable them to report problems, but should also train transit drivers and transit staff to be sensitive and know how to intervene when a female rider needs help. Indeed, students in all cities mentioned that the perception of lack of support during and after a crime occurs, as well as the general ambiguity of where and how to report it, highly

contribute to the victims deciding not to report to the police and/or transit authorities. If the police are not there, or if it is too difficult to file a report, reported cases of sexual crimes against women in transit will continue to remain low and invisible to authorities. Therefore, policy interventions should create clear and easy protocols for reporting harassment incidents.

Creating educational campaigns and policy frameworks is also essential. Public transport authorities could launch awareness campaigns for the general public against sexual harassment, sharing strategies and getting institutions, organizations and the public at large to work together to reduce these incidents. At the same time, educational institutions—from primary and secondary schools to community colleges and universities—should conduct age-appropriate anti-harassment education workshops, letting students know from very early on that sexual harassment is not okay but constitutes a serious offense. There is also a need to rethink the training of those who plan, build, and renew urban environments, such as architects, engineers and urban planners. The relationship between women's victimization and fear of crime in transit environments should be taught to students in these professions, so that future practitioners can gain a sensitivity to gender-based dangers to personal safety.

Campaigns by some transit operators in the US, such as *All Are Welcome Here* and *Keep Your Hands To Yourself*, highlight that transit serves all types of passengers, and that sexual harassment and inappropriate comments are off limits and should be reported to transit authorities immediately, so that all riders can use transit safely (Hanson, 2019). The American Public Transportation Association (APTA) has assembled examples of best practices; for instance, in April 2018, Seattle launched a public facing communications campaign to coincide with National Sexual Assault Awareness month. Other cities launching initiatives include Los Angeles, and the Twin Cities, as well as some cities in Canada (Hanson, 2019). There are also examples from the Global South, such as a campaign initiated in the São Paulo metropolitan area that motivates bystanders or victims to report sexual harassment incidents to a hotline (Ceccato and Paz, 2017).

Women riders are the real experts of where, when, and how sexual harassment takes place in transit environments; where they feel mostly scared and unprotected; and what it will take to mitigate this. Therefore, more women should be prominently involved in the (re)designing and planning of transport services and transit facilities, and also more women should find work in the transportation sector—a sector that today is male-dominated in most countries.

Lastly, it is imperative that legislators and the criminal justice system take the problem of sexual harassment in public spaces seriously. Only a few countries have started enacting legislation specifically focusing on sexual harassment offenses and designating strict penalties for them. But even when this happens,

most penal codes tend to adopt a narrow definition of sexual harassment that only considers physical harassment—namely inappropriate touching or penetration for sexual gratification, which are considered as misdemeanors or felonies respectively. Many other sexual harassment behaviors are not included in these codes.

In the end, response to sexual harassment in transit environments must be multi-pronged, and demands an interdisciplinary and holistic approach by transport operators, the police, legislators, educators, municipal authorities, NGOs (e.g. women's organizations), and civil society to ensure that sexual crime in transit environments will not be tolerated.

Conclusion

Sexual harassment and sexual crime in transit environments are unfortunately omnipresent, albeit invisible to authorities; they remain highly underreported among youth across the world. Verbal sexual violence is more common, followed by physical sexual violence, and non-verbal sexual violence. Regardless of the type, harassment varies by transport mode but also by time of day. Access to safe and reliable transport is an individual right that is not guaranteed in many cities for all citizens. All over the world, the victims have to deal with the problem of sexual harassment and sexual crimes as they travel through their cities. Such victimization affects mobility and may diminish women's employment or recreational opportunities.

Issues of women's safety in transit environments in many countries touch upon more fundamental challenges in the delivery and provision of public transportation services (Ceccato, 2017). If we want more sustainable cities, public transport and trips by bus and train must be made attractive, secure and safe for all groups of travelers. Servicing the "universal needs" of riders, as many transit operators purport to do (Loukaitou-Sideris and Fink, 2009), is not adequate, and attention should be paid to the particular needs of different sub-groups. This demands more solid evidence of what works, what doesn't, and for whom, in the prevention of sexual crimes. We should also recognize that things will not change unless we deliberately consider and plan for safer environments. As Juma Assiago, head of the Safer Cities program, UN-Habitat, suggests in the Preface to this book: "the safety of women and young people in public transit cannot be taken to be *an incidental consequence* of the spatial development of cities and human settlements. Rather, it must be considered *an explicitly planned outcome of urban planning*." This task is far from complete and needs concerted efforts from different stakeholders, as discussed above. Only then will we have safer and sustainable transit environments for all in our cities.

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