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# Improving young women's access to safe mobility in a low-income area of Tunis: Challenges and opportunities pre- and post-Covid

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# Abstract

This paper explores the everyday transport and mobility challenges faced by young women living in one poor peripheral neighborhood of a North African city, Tunis. Discussion spans a two-year period covering conditions prior to and within the COVID-19 pandemic. Using an innovative participatory methodology, young women from the study neighborhood were trained to work as peer researchers in collaboration with the academic team. We examine women's everyday mobility experiences, with particular reference to safety and the risk-avoidance practices they employ. In the context of the pandemic we then consider the impact of measures such as social distancing, lockdowns, and curfews on women's travel safety. In the early phases of the pandemic women's concerns around harassment seem to have been over-ridden by stronger concerns regarding disease contagion but also reflect reduced incidence of harassment due to limits imposed on transport usage and over-crowding. We conclude with reflections regarding the interventions needed for more positive post-pandemic travel scenarios, including priority seating, and boarding for women; expanded transport services into low-income areas; also improved surveillance on transport, at transport hubs and on the streets.

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# 1. Introduction

There is growing evidence to suggest that young women resident in poorer city peripheries in low income

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This is an open access article under the CC BY-NC-ND license (https://creativecommons.org/licenses/by-nc-nd/4.0) Peer-review under responsibility of the scientific committee of the Living and Walking in Cities 10.1016/j.trpro.2021.12.035 countries face particularly severe social and economic exclusions that promote unemployment and poverty; moreover, that these are closely associated with transport deprivations (Uteng and Turner, 2019; Vanderschuren et al., 2019; Woldemichael, 2020). Such transport deprivations extend well beyond matters of cost or frequency of services: at their heart lie issues of travel safety and security. Africa's highly gendered transport arena is certainly a major travel deterrent for many women: men dominate all types of vehicle ownership and operation and set the 'atmosphere' within which women have to negotiate their daily journeys (Porter, Abane and Lucas, 2020).

This paper explores the everyday transport and mobility challenges faced by young women living in one such low-income peripheral neighbourhood in a north African city, Tunis. Through in depth research conducted prior to and during the COVID-19 pandemic, we aim to demonstrate the scale of the travel problem young women can face when walking or riding on public transport, the risk-avoidance practices they employ, the impacts of insecure travel on livelihoods and well-being, and the potential for building safer, more secure, travel opportunities in a post-pandemic era. An additional purpose of the paper is to demonstrate the potential of the innovative participatory peer research methodology that is central to our study, not only for developing strong insights into current mobility constraints among a highly vulnerable group, but also as a sounding board for identifying measures that could help improve travel safety and security in the future. The case study we present forms part of a wider research project in three contrasting African cities (Abuja and Cape Town, in addition to Tunis).

# 2. Background: Tunis, the study context and our methodology

Tunis city as a whole is characterised by high traffic density and pollution. Public transport deficiencies (issues regarding comfort, speed, reliability and safety) are such that individual car ownership is widely preferred to public transport usage (Godard, 2007; Kilian-Yasin et al., 2016) Usage of public transport across Greater Tunis reportedly declined from 68% in 1977 to 28% in 2011 (Kilian-Yasin et al., 2016; TRANSTU, 2015). Moreover, transport users have to engage with a transport sector that is strongly male dominated: in TRANSTU (Société des transports de Tunis), the public enterprise responsible for the city's transportation, under 8% of the workforce was female in 2017 and the majority of these women were employed in administration, not in passenger-facing transport operations (Martin, 2017). For those users whose resources limit them to travelling on public transport, especially women, daily commuting is often hazardous and exhausting. Younger women are particularly exposed due to their need to undertake regular travel for education or employment while at the same time having little access to personal/family vehicles. The peripheral study location just inside the city boundary on which we focus is one of two study sites in the Tunis city-region where we have been conducting research since early in 2019. (The second site is located outside the city periphery; references to these locations are anonymised in this paper since some respondents might be too easily identified, possibly to their detriment.) Situated in the northern part of the agglomeration of Grand Tunis, the focus neighbourhood has a population of approximately 85,000 people and is mostly a high-density dormitory settlement. There is little employment beyond the local service sector, so that many young women in work have to commute into other parts of the city, particularly the Central Business District, despite the travel challenges this presents. This neighbourhood is considered to be one of the least provisioned, most unsafe neighbourhoods in the whole city.

The innovative participatory methodology with community peer researchers that we employed from the start of the project fits particularly well in a research context such as this, given the focus on vulnerable groups facing potentially sensitive issues and resident in a location where insecurity prevails. The approach has been developed by the project PI over a series of mobility projects with vulnerable groups in Africa (Porter, 2016). In the Tunis case it involved two Tunisian Research Assistants (communicating principally in Tunisian Arabic), together with the PI, training 3 young unemployed women from each of the two study communities. These women, aged between 22 and 36, were recruited via local community-based organisations that work with unemployed youth. They were given one week's intensive training in in-depth interviewing, participant observation and writing mobility diaries but subsequently worked independently. Classroom-based teaching (in a neighbourhood youth centre) alternated with field exercises and associated reflection, not least concerning ethical aspects of their work. After the training each peer researcher conducted a minimum of a further 10 mobility diaries and 10 in-depth interviews (i.e. in addition to those completed during the training week). Additional interviews and focus group discussions were conducted by the academic research assistants. In total this amounted to approximately 50 in-depth interviews and 36 mobility

diaries for each of the study neighbourhoods before the onset of the pandemic. The peer researcher interviews with female friends, family and neighbours in our age range focus (18 to 35 years) alongside their personal mobility diaries were particularly valuable as a base for identifying key issues that could subsequently be further explored by the academic team. While our Tunis team included young Tunisian (female and male) RAs resident in the city, even they – as outsiders in this low-income community - benefited from careful introduction to the neighbourhood and its residents, following prior discussions with community leaders and local CBOs. In addition to their fieldwork across the neighbourhood, the peer researchers committed to attending project Consultative Group meetings (CCGs, to be held approximately 4 monthly) for discussion of research plans and emerging findings with those ministry, NGO and private sector staff who had agreed to participate. Payment to peer researchers covered the one week's training, subsequent fieldwork contributions (including pandemic diaries, discussed below) and attendance at the project CCGs. When COVID-19 struck Tunisia in March 2020 our peer researchers became even more crucial to our research study than we had anticipated. With lockdown no further face-to-face work could be conducted and we became largely reliant on peer researchers' reportage of their personal experiences of mobility/immobility in the study sites, using the medium of (im)mobility diaries. In total, 32 COVID diaries were written by peer researchers from the focus study neighbourhood (i.e. in addition to the 50+ in-depth interviews/focus groups and 36 mobility diaries written pre-COVID). While we cannot vouch in statistical terms for the representativeness of the experiences which our peer researchers report, the qualitative data offer rare insights into the mobility-related difficulties faced by young women in their community.

# **3.** Mobility practices of women resident in the study neighbourhood: a nexus of cultural and transport constraints

In low-income peripheral areas like our study neighbourhood, where car ownership is relatively low, transport deficiencies impose particularly heavy constraints on the mobility of young women. Few young women have access to their own vehicle and women are very rarely seen riding bicycles (seemingly viewed as culturally inappropriate for women, but also not popular with men) so they must rely on public transport for most journeys. They are thus what Ceccato (2017) refers to as "transit captives". Bus services into the area are sparse, irregular and extremely crowded, but far cheaper than taxis. Official metered private 'yellow' taxis are relatively expensive and rarely seen in this area though there are collective taxis which wait at set stops until the seats are filled and drive on specified routes. These are cheaper than private taxis (approximately one-fifth of the price for a journey into central Tunis) but do not provide a door-to-door service; the drivers are also often accused of driving dangerously, at high speed. However, women reported that even metered taxis often refuse to take passengers to the door, on the basis that roads in this area are so full of potholes that the vehicle will be damaged. These streets often flood too when there is heavy rain, making walking difficult. Transport availability becomes even more limited and unreliable at night, when operators are reluctant to enter this area at all. Cost and inconvenience are not the only barriers to travel, however, especially where young women are concerned. Most women's lives in the study neighbourhood are shaped by the rather traditional Muslim social mores that prevail and determine what is deemed seemly conduct for females: indeed. Muslim conservatism has been reinforced since the 2011 revolution (Nillesen et al., 2021). Of particular concern to young women and their families is the harassment and associated security issues that feature so regularly in the accounts of our peer researchers and those they interviewed as they walk or take motorised transport. The high rates of harassment they reference, and that we discuss further in the next section, can be linked to current prevailing gender norms (Gekorski et al., 2017): public space beyond the home, particularly in low-income neighbourhoods like this one, is essentially regarded as a male domain (Holmes-Eber, 2018:17). Unsurprisingly, evidence of harassment extends city-wide, such that the organisation CREDIF established a partnership with TRANSTU to address harassment on public transport, including an awareness campaign supported by the EU and UNFPA in 2017 (see Martin, 2017).

The impact of these intersecting cultural and transport constraints is inevitably substantial. Most women's lives in the study neighbourhood revolve around the family home, caring for husbands, children, and elders, including much time spent escorting children to and from school. Many women here are educated locally, shop locally and, if they have found paid work, it is often for modest remuneration in small neighbourhood enterprises, such as children's nurseries, small shops, bakeries, and small manufacturing enterprises. Only a relatively small proportion of women

commute to other parts of the city for work. Seen by male family members as particularly vulnerable and in need of protection, young women must navigate between the dangers they and their families perceive to accompany women's independent lone travel, and the desire – or need - that at least some young women have in this neighbourhood to access the opportunities that may be available beyond the confines of home and the surrounding streets.

# 4. Managing mobility: Young women's experiences of travelling on public transport, pre-COVID

An excerpt from an interview describing one young woman's experiences of travel within and from the study neighbourhood will help set the scene for discussion and reflection. Habibah (note, all names are pseudonyms) was interviewed by one of our peer researchers. She is 29 years old and has lived in the neighbourhood all her life. She is married with 3 children, the youngest 9 months old, the oldest aged six, and works at a sewing factory downtown.

"We always use public transport, buses and collective taxis. We can't afford meter taxis. My husband works sometimes in cafes, and sometimes in restaurants... I work every day, except for Saturday afternoon and Sunday... In the mornings, when I am going to work, there is a lot of stealing and harassment and disrespect...I use the phone sometimes when I miss the bus. I have a friend who owns and drives a collective taxi. I (sometimes) call him to ask him to save me a seat because, after work, it's impossible to manage to find a seat in a collective taxi. And it's hard to get a meter taxi too...The way I dress has a big impact on my experience. I didn't wear the Hijab; I used to get harassed a lot with the pretext that the way I dressed wasn't decent. I still get harassed now (that I wear the Hijab), but not as much. Yesterday, I woke up at 5 AM... I woke the kids up a fed them then took them to my mother's house. She keeps the youngest with her and take the other two to kindergarten at 8AM. I walked to the bus station at 5:50 AM and waited for the bus. It came at 6:20AM (it takes one hour and costs 0.47 TND). There was a lot of traffic, so I arrived to (location near the factory) at 7:30 AM. I walked for 5 minutes to work...I finished at 5 PM so I walked to the bus station to take the 5:10 bus. Sometimes I finish work slightly late, so I would have to wait for the bus that comes at 6:10 PM. I missed the first bus yesterday, so I had to wait. It was packed and I couldn't find a seat. I got to (destination) at 7:15. I walked to my mother's house to pick up the kids. I took them home and made them dinner. After they finished their homework, we slept."

Habibah's family depend on her income, so she is forced to travel beyond her neighbourhood for work. Her reflections span some important themes around travel constraints, not least congestion on public transport and the harassment issues (facilitated by over-crowded transport) that shape her choice of dress. They also point to the exhaustion that underlies these daily activities since work at some distance from home has to be combined with housework and childcare in the home. Her mother clearly provides a vital prop in holding this routine together.

Many of these themes similarly thread through other interviews or reflections of young women included in our Tunis study. In line with the conference focus on safe mobility for innovative cities, however, we have selected one theme for particular attention, the harassment of young women, when they are walking or travelling on motorised transport. Whether this comprises gestures (e.g. leering), verbal remarks (cursing, making inappropriate comments) or actual physical harassment, or some combination of these (i.e. along the same lines as the harassment noted in Cairo by Peoples, 2008), there is no doubt as to the extent to which it negatively impacts on women's mobile lives: it is a significant deterrent to their travel, sometimes inhibiting job search and employment and thus contributing to both social and economic exclusion. A few women reported how they had resigned from their jobs because of their negative experiences on public transport. For others precarity is such that they have no option: 'I have to accept it (sexual harassment). It's either that or I stay at home with no job' (21-year-old, working at a sewing factory).

The experiences that bring most distress tend to take place on very congested public transport, especially where men can squeeze up against young women. Hela, a 20-year-old university student recounts how: I was on the tram once, when this woman who was sitting stood up and asked me to sit down. I asked why and she said: "I said sit down". I sat down, confused. When I got out of the tram, she followed me and told me that an older man had unzipped his trousers, gotten his genitalia out and come closer to me. I broke down in tears. I hated all men in that moment. Even though I wear the hijab, he didn't respect that. I could be his daughter. The problem is they (are) all older men. Most of them are sexually frustrated. There are no solutions because the problem is the mentality." Another student, 21-year-old Sonia, described how she uses the public bus and manages with all the pushing and shoving but again has been distressed by the physical harassment: "One time, a man got very close to me and stuck

his body against mine. When I asked him to back off, he told me that if I didn't like it, I should take a meter taxi. I was the one to blame!"

Gesturing and verbal pestering are less extreme issues but still very upsetting for many young women: one 17year-old is a secondary school pupil and likes to go into town sometimes after school to meet friends for a coffee: "Last time, I took the tram at 7pm. It wasn't full. A man who looked in his late 20s kept looking at me and gesturing. I changed my spot so he followed me and asked me for my number. I refused and told him that I had a boyfriend, but he kept insisting. It's true that he didn't touch me or beat me, but I didn't particularly feel safe. Behaviours like this make me feel uncomfortable and unsafe, and it makes me think twice about what I wear, or if I smile or not."

Dress/appearance, as noted above, is often viewed by women and their families as a potential incitement to harassment: Nour, 27 years old and single stressed that, "*The way I dress plays a role in being harassed, especially when I wear short skirts or show some skin*". Habibah found the hijab (used to signal Muslim identity and religious observance) some protection against harassment, as does Saida (a 34year old divorcee with two children), who reflects, "*The way I dress doesn't cause me issues because I wear the hijab. But, in general, when women are not dressed decently, men will harass them.*" *This is something I see every day*" A 16-year-old student talked about wearing the hijab from the age of thirteen, encouraged by her family, to avoid harassment. Similarly, Hela, aged 27, who work in a pastry store and travels by bus observed: "*People don't bother me, on the contrary, they avoid me because I wear Hijab Charii (Niqab without the face veil, baggy and usually in a dark colour, it could also include gloves to cover the hands).*" When a young girl was harrassed by a man on the metro, one peer researcher complained how, after she hit the man, all the women around (all older women) blamed her: "you should be quiet, not dress like that'. But other young women suggest harassment can occur regardless of dress: 'My clothes have little impact on my experience, because in Tunisia, it doesn't matter if you're covered or not, you're not safe' (unmarried 21-year–old).

Given the high potential for harassment on crowded public transport, and the sparsity of taxis operating in this neighbourhood, young women often prefer to walk over short distances. However, even walking in daylight hours can be dangerous, so young girls try to walk in groups. The threat of mugging is particularly high early in the morning or late at night when street lighting is often absent or defunct; a few interviewees had personal experiences of being mugged. For this reason, our peer researchers prefer to go to high income neighbourhoods for recreation, especially if a family member with access to a vehicle (usually male) will drive them there. These are considered 'safer: there is more of a police presence. There are cameras. You have to pay for your safety.' (Peer researcher). For many Tunis women (in and beyond our study neighbourhood), having a personal vehicle is the favoured solution to all their transport problems; one fortunate 30-year old woman described how her father had paid for her drivers' license when she passed the Baccalaureat - she subsequently bought a car from funds she earned by tutoring: "Because I live in a poor neighborhood, when the government doesn't pay much attention to us, they don't pay attention to our roads or our transport. When I'm driving and I see public bus full of people, I feel suffocated. I deprive myself from many things in order to be able to save money and free myself from public transportation and protect myself from the public bus and its problems like sexual harassment and stealing." She has now started carpooling with four people to reduce her petrol costs. While this presents a solution for those women able to afford a car, the negative implications of increased recourse to private personal vehicles are significant, not only in terms of the contribution to city streets already congested with traffic, but also to wider issues of air pollution and the city's expanding carbon footprint. In the long-term this cannot be a sustainable solution to women's transportation problems.

#### 5. Young women's transport and mobility experiences during COVID-19

In Tunis, COVID-19 restrictions commenced with a 6pm to 6am curfew from 18th March 2020, followed by full lockdown on the 22nd March. Subsequent relaxation occurred from early May, driven by the country's dependence on international tourism. In August, however, COVID-19 infections were starting to increase again and by October 2020 the country was in the grip of a significant second wave. Since then, conditions have remained difficult: a short-lived decrease in infection and death rates was followed by a third wave in April 2021 (El Kadhi et al., 2020). Measures such as social distancing, lockdowns and curfews, coupled with price hikes in the informal transport sector, have inevitably changed the mobility landscape, but with varying impact on women's travel and travel

safety, as our peer researchers observed through their personal (im)mobility diaries.

At an early point in the pandemic it would seem that women's fears of harassment were over-ridden by even stronger fears of contagion, such that they moved to more expensive forms of transport such as collective and private taxis in preference to public buses. Subsequently, because government is a major player in the city's transport sector, essential workers with appropriate papers, in periods of lockdown, were allowed to travel free of charge on formal public transport to and from work: this reduced crowding substantially for a time in buses, trams and trains, probably to the advantage of women covered by the dispensation (though as none of our peer researchers or their contacts were in this category, we were unable to access formal evidence of this). With fewer passengers and less crowding it is likely that one very positive result in Tunis was a reduction in sexual harassment (a point which is elaborated further below).

After the end of the first lockdown our peer researchers reported a combination of reduced numbers in collective taxis operating in the neighbourhood at the same time as fares rose: from 1 dinar in March 2020 (pre-C-19) to 1.6 dinars in late July (approximately twice the cost of the same journey by bus, but buses were starting to become crowded once again). At the same time, by this point in time many people were not observing social distancing or mask-wearing on the city streets. As one peer researcher entered a collective taxi she observed, 'No one except me wore masks as usual. Handing in the taxi fare from hands to hands was usual thing they continue as if there's no COVID-19'. On the metro, however, there seemed to be more compliance: one peer researcher observed that most older people wore masks and around 70% among the other age groups (but not children).

By late October 2020 the second wave of COVID had set in. Mask-wearing was now mandatory, and a curfew was in place overnight, from 8 pm. Our peer researchers now observed how the metro became 'weirdly crowded' in the early evening because of the curfew: even taxis were full. Interestingly, however, remarkably few observations in our peer researcher's diaries refer to harassment in this COVID-19 second wave: it would seem that the pandemic has reduced travel substantially and while social distancing may not be well-observed, the degree of crowding has reduced to the extent that it is at least much more difficult for physical harassment to occur. When we directly questioned our peer researchers about this reduction in observations of harassment, they confirmed that since the advent of COVID-19 physical harassment is no longer a common issue (hence its absence from diary observations). As one of the peer researchers pointed out, because of the physical distancing measures, only a small number of people are allowed at a time on the public bus. Thus, getting on is less hazardous in terms of crowding, and once on the bus, if a perpetrator of harassment were to do something, everyone would know about it now, whereas, before the pandemic the man would say that overcrowding on the bus meant he couldn't keep a distance. Our peer researchers are now more focused on health safety concerns around mask-wearing and social distancing on public transport and at major transport hubs. However, they also emphasise that visual harassment continues as before: they argue that it is specifically the lack of opportunities provided by overcrowding on public transport that has reduced the incidence of physical harassment.

#### 6. Potential interventions for promotion of more positive post-pandemic travel scenarios

During two Country Consultative Group meetings held prior to the pandemic, members of our peer research team were able to engage productively with city transport officials and others to consider current issues around women's mobility constraints. We discussed the findings from the research in the study neighbourhoods and some potential solutions to the issues faced by women, drawing on suggestions made both by the peer researchers and by other members of the CCG. In terms of the major travel issues women in their community faced, harassment was consistently raised by the peer researchers as the most significant hazard. Interestingly, at the first CCG meeting this seemed to genuinely surprise one (male) transport sector participant who then asked for an estimate of the percentage of women harassed on transport. A peer researcher immediately responded: "Most. But it's different kinds of harassment, touching, and verbal comments on your dress and hair... I will pay more to feel safe... Crowdedness leads to sexual harassment." She and her colleagues argued for more security in the stations as well as on transport and suggested that transport staff needed training on how to advise women who have been harassed. In the ensuing discussion, another (male) official observed 'harassment is the culture and mentality. Lack of safety, it's everywhere (not just in the city)....Thirty years ago we had more decency. This generation.... But if I hear (about) harassment, you need proof – these people (harassers) are professional. The new technologies are making it easier

to catch people...' He then argued strongly for far wider application of surveillance cameras in buses and at hubs, noting that this would also support a return to public transport: 'Surveillance works!' However, as other meeting participants noted, surveillance will only work if the technology is maintained (against vandalism) and the justice system deals adequately with perpetrators.

Further recommendations were made at these pre-pandemic CCGs regarding the need for improved frequency/scheduling of services and the reductions in crowding this would promote; in response, transport ministry staff raised affordability concerns, particularly the cost of expanding bus fleets and metro. With regard to expanded services, a small city-wide survey of men and women (N=155) by Kilian-Yasin et al. (2016) suggested potential interest in uptake of an inter-suburb E-Minibus system with a network of charging stations: this was not raised at the meetings but would merit further examination. Discussion of the controversial 'pink (segregated) transport' approach that followed in our CCG was dismissed by transport officials as unworkable, unless accompanied by awareness-raising among the public and strong media support; our peer researchers were also unconvinced of its potential in Tunis. There has been considerable debate globally regarding potential benefits and disbenefits of segregated transport, with positive reports for instance from Mexico City (Dunckel-Graglia, 2013) and contrary arguments regarding its potential to increase women's feelings of isolation and victimhood and failure to address the more fundamental issues of gender inequality at the heart of violence and harassment (Narayanan, 2020). In Tunis, the current limited availability of public transport passenger vehicles (and resource constraints associated with the economic downturn of recent years) would hamper the allocation of women-only seats or coaches, even if there was significant local interest in its adoption. Meanwhile, car-pooling (which some better-resourced women would prefer to adopt), may be open to misinterpretation: transport officials referred to car-pooling as 'unformal, unlicensed' business, now illegal, but their comments related to on-line touting for business by informal operators, rather than private arrangements between women who know each other. Other issues such as improvements to lighting and community roads were seen as needing stronger engagement with local government. While airing of these issues with transport and NGO staff in the CCG has proved a useful first stage towards building sensitisation to women's travel constraints, transport planners conventionally require large data sets amenable to statistical manipulation, as one official observed. Fortuitously, there may now be an opportunity to move forward with this, post-pandemic, because we were informed that a new budget law (replacing that of 2002) requires consideration of gender issues: "so now (when budgeting for transport), for the first time now we need to take account of gender." This will, of course, require careful reflection as to what gender-sensitive planning should encompass in the Tunisian context and what baseline data are essential in the first steps towards implementation.

The pandemic has clearly re-shaped Tunis's mobility landscape, at least in the short-term. However, as regular transport services return to the city, yet dangers of disease transmission on crowded transport remain, this could be a particularly timely moment for experiments with seating and boarding arrangements that give women priority access, particularly on routes into low income areas where public transport demand is high. Physical distancing requirements on public transport, if supported by transport operators, would represent an opportunity for women to claim and maintain safe space, but would require negotiation with current operators given consequently reduced operating revenues and the need for additional scheduled transport. With regard to surveillance, there is clearly some potential for phone-based apps which women could use when faced with harassment. A new app, 'SafeNess', was launched late in 2020 across Tunisia and Morocco by the Centre of Arab Women for Training and Research to help protect women on public transport. This has the facility to alert five trusted individuals regarding the time and location of an incident. However, none of our peer researchers referenced this in their diaries and, when asked directly about safety apps, all said they had never used one.

### 7. Conclusion

The everyday mobility challenges faced by young women living in the Tunis low income neighbourhood discussed in this paper are substantial: intersecting cultural and transport constraints combine together to promote severe social and economic exclusions. Prior to the pandemic, the threat of harassment (in its various forms) substantially shaped young women's everyday mobility practices. The pandemic has certainly brought new mobility challenges to the fore, as travellers try to manage the threat of contagion, but the reduced levels of physical harassment associated with reduced crowding on public transport also suggest the significant potential of

interventions that can maintain current low levels of congestion. Suburban E-minibus services which improve service frequency and reduce crowding, as suggested by Kilian-Yasin et al. (2016), for instance, would merit further exploration, particularly with reference to these low-income areas that are currently so badly served. Priority seating and boarding for women on public transport, together with (working, regularly serviced) surveillance cameras and safety apps may also support women's safer travel, but more fundamental interventions that lie outside the transport sector, in basic gender education/sensitisation for boys and men, will be necessary if the underlying gender norms and attitudes that inhibit women's mobility in Tunis are to be adequately addressed.

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