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**THE PREVALENCE AND NATURE OF SEXUAL HARASSMENT AND
ASSAULT AGAINST WOMEN AND GIRLS ON PUBLIC TRANSPORT:
AN INTERNATIONAL REVIEW**

Structured Abstract

Purpose: This paper reports on the findings from a study commissioned by the British Transport Police and the Department for Transport for England and Wales concerning sexual offences and harassment on public transport worldwide. Specifically, it aims to explore the prevalence of such behaviours, through a review of existing survey and interview data regarding women and girls' experiences.

Design/methodology/approach: A Rapid Evidence Assessment (REA) was used, the function of which is to: search the literature as comprehensively as possible within given time constraints; collate descriptive outlines of the available evidence on a topic and critically appraise it; sift out studies of poor quality; and provide an overview of the evidence.

Findings: It was found that prevalence rates range from 15 percent to 95 percent, with the UK having the lowest rates. Emerging economies had higher rates of harassment and assault, which may relate to differing cultural and gender norms, where public space is regarded as a male domain.

Research limitations/implications: A REA is not a full systematic review, differing in the scope and depth of the searches and depending almost exclusively on electronic databases, not accompanied by searching journals by hand.

Practical Implications:

1. More research of high methodological rigour needs to be carried out on prevalence rates of sexual harassment and offending on public transport worldwide.
2. The high prevalence rates found suggest the need for more work around the area of interventions to curtail offending in this setting.
3. The findings suggest that emerging economies, in particular, need to do more to address the problem of sexual harassment and assault on public transport.
4. More fundamentally, cultural norms around women's role in society need to be addressed and challenged.

Value: Women may become ‘transit captive’ and socially excluded if they are afraid to travel on public transport and do not have access to private transport. This is an unacceptable situation which must be addressed by transport authorities and police.

Introduction

Worldwide, every day, women are subjected to unwanted sexual behaviours on public transport¹. These may range from sexual harassment – broadly defined as any unwanted sexual attention including lewd comments, leering, sexual invitations, threats, displaying pornographic material, being followed or pictured, and public masturbation (e.g. Project Guardian, 2013; Shoukry, Hassan, & Komsan, 2008) – to sexual assault, when someone is threatened, coerced, or forced into non-consensual sexual acts (Lawlink, 1999).² Yet, as argued by Rivera (2007), research on transport from the 1950s until the 1980s ‘was outright gender blind...neither recognizing nor responding to the needs or priorities of women’ (p.4) – with interest slowly emerging from the early-1980s.

Most literature relating to sexual assault and harassment on public transport concentrates on trains, subways, buses, and trams. These forms of transit run on set routes, charge pre-defined fares, are accessible to the general public and usually have published time-tables. The particular conditions and environments within public transport may enable the perpetration of unwanted sexual behaviours. Rush hour, for example, may give offenders opportunities to touch or rub against victims who are

¹ Also known as public/mass transportation/transit.

² As legal definitions of various sexual offences vary across jurisdictions, this definition has been used as it relates to the range of behaviours that are the focus of the report.

essentially captive in crowded underground or train carriages. While at isolated transport hubs, or very late at night when public transport is sparsely utilised, women may be subjected to even more serious assaults, such as rape. Figures from the British Transport Police (BTP) support this, indicating that most serious sexual offences occur during commuting times, apart from rape, the peak time for which is Friday nights between 8pm and 2am (Lambillion, 2012). Although such unwanted behaviours may be experienced by males³, the focus of this research is females – both women and girls – as they constitute the vast majority of victims (Stringer, 2007) and there is even less extant literature on male experiences.

Like sexual assault and harassment generally, the vast majority of unwanted sexual behaviour on public transport is not reported (TfL, 2013). Reasons for non-reporting may vary between countries, and may depend on (e.g.) cultural and societal attitudes towards women and perceived police responses (Dhillon & Bakaya, 2014). One British study identified four barriers to reporting (TfL, 2013): (i) normalisation: victims see the behaviour as a ‘social nuisance’ to be tolerated; (ii) internalisation: victims want to escape and forget the incident as soon as possible, or find someone who cares (e.g. friends or family); (iii) lack of awareness: victims do not know which behaviours to report, who to report to, or how; and (iv) system credibility: victims have little faith that

³ It has been found that it is usually gay men who experience such behaviours (TfL, 2013).

reporting will result in the offender being caught or sanctioned. Elsewhere, women have been found to see the police as a threat, fearing being blamed for the harassment, and perceiving that there is a ‘socially programmed attitude that boys will be boys’ (Jafarova, Campbell, & Rojas, 2014). Women may also fear social stigma or scandal for themselves or their families (Fahmy et al., 2014) or bearing further reprisals.

The extent of under-reporting is illustrated by disparities between official figures of recorded crime and figures reported by women on online platforms, and in research conducted by transport organisations, government agencies, and academics. For example, TfL’s quarterly Safety and Security surveys –involving telephone interviews with 1,000 Londoners aged 16 and over and include nine questions about unwanted sexual behaviour on public transport – suggest that 98 percent of victims do not report such incidents (TfL, 2013). Of the 130 women interviewed in a study considering barriers and triggers to reporting, although *all* had experienced some form of unwanted sexual behaviour, only *one* had reported it (TfL, 2013). This was recognised, and led to intervention, by the BTP and in their most recent annual report, they recorded a proportional increase in reported sexual offences on public transport of just under 40 percent, to 1952 crimes in the preceding year. This is attributed to better reporting, rather than an increase in incidence (BTP, 2016).

High rates of non-reporting have also been found internationally. In New York, 96 percent of women who had been sexually harassed on the subway, and 86 percent of

women who had been sexually assaulted, did not report it (Stringer, 2007). In Baku, Azerbaijan, a study found that *none* of the 162 out of 200 women who reported having been sexually harassed on the metro made an official report (Jafarova et al., 2014) and, in Egypt, one study found that only 2.4 percent of women reported sexual harassment and assault in public spaces (Shoukry, et al., 2008).

The ‘real’ extent of sexual harassment may also be underestimated due to jurisdictional specific police classification and recording practices that include subsuming sexual offences within other categories, such as ‘felony assault’ in the USA (Stringer, 2007). When such data *are* collected, ‘umbrella’ categories are often used, rather than offence specific codes. For example, the BTP has no means of identifying incidents of lewd or sexual comments, which are among the most common form of sexual harassment but are outside established sexual offence categories (Twyford, 2013).

This research seeks to illuminate the ‘dark figure’ of unwanted sexual behaviour on public transport globally, rather than relying on official statistics and recorded crime. The results follow on from a Rapid Evidence Assessment (REA) that was conducted by the authors and their colleagues (BLIND, 2015), commissioned by the BTP and the English and Welsh Department for Transport, to consider: ‘What works in reducing sexual harassment and offences on public transport nationally and internationally?’ The extent of sexual harassment and assault on public transport worldwide was beyond the specific research question in the published REA. However, it was included within the

scope of the initial methodology in order to contextualise other findings. This paper develops that review to draw out prevalence further and provide a more representative understanding of the extent of sexual offending, to better enable policy priorities.

Method

Design

The original research adopted an adapted question-led Rapid Evidence Assessment (REA). According to Davies (2003) the functions of an REA are to:

- search the electronic and print literature as comprehensively as possible within the constraints of a policy or practice timetable;
- collate descriptive outlines of the available evidence on a topic;
- critically appraise the evidence;
- sift out studies of poor quality; and
- provide an overview of what the evidence is saying.

A toolkit for undertaking a REA has been widely implemented since its inception by Government Social Research⁴ (e.g. Booth et al., 2011; Horvath, et al., 2014; and Adler et al., 2016). The toolkit advises that a REA is typically completed in three to six

⁴ See:

<http://webarchive.nationalarchives.gov.uk/20140305122816/http://www.civilservice.gov.uk/networks/gsr/resources-and-guidance>

months; however, as the timeline for the commissioned research was eight weeks, some amendments to the normal REA method were made. These included limiting: the databases utilised, the number of search strings, the results reviewed, and the ‘weight of evidence’ scoring approach; each is outlined further below.

Procedure

Inclusion and exclusion criteria were agreed between BLIND and the BTP at outset.

The key inclusion criteria were:

- studies published between January, 1994 and December 31st, 2014;
- studies focused on sexual offences on transport/transport stations/hubs;
- studies focused on preventing/reducing sexual offences on transport/transport stations/hubs;
- English language publications;
- all countries; and
- all research methods.

Search terms/strings. Search terms were developed that ensured scope and rigour when addressing the research questions (see Appendix 1). Two separate search strings were then generated. Although these search strings were not specifically generated to

interrogate data on the extent of sexual offending on public transport, the inclusion of ‘studies focused on sexual offences on transport/transport stations/hubs’, was thought sufficiently comprehensive to encompass this literature.

Literature searching. The relevant literature was identified through three main methods: (1) systematic searches for relevant studies and literature across high priority academic databases: ISI Web of Science (WoS) and International Bibliography of the Social Sciences (IBSS); (2) an online search for grey literature through Google; and (3) requesting relevant material through a Call for Papers to researchers, practitioners, and police forces. All results were ranked by relevance, and the first 1,000 results of each database were reviewed. RefWorks Flow was used to collate and store sources.

Data extraction. The academic database search identified 1,582 papers to screen further. This was done firstly by title, secondly by abstract, and lastly by reading full text articles, leaving seven relevant sources. This process was then repeated for the Google searches, which identified 243 items, 143 of which remained after screening. The reference lists and bibliographies of these sources were then scanned for key material that might have been missed, producing a further 14 documents. The ‘Call for Papers’ produced 43 materials, 27 of which were deemed relevant. This amounted to a total of 191 documents, 151 from the grey literature and 40 from more traditional sources.

Key information from source (e.g. author(s), title, date of publication, type of source, country, method, and summary) was then extracted into MS Excel. For this paper, the 191 documents were revisited, with one tenth ($N=19$) being concerned (to a greater or lesser degree) with the extent of sexual offending on public transport, both nationally and internationally. In order to quality assure our own process, we returned to these 19 documents in more depth and identified four further materials pertaining to prevalence. Although three out of four of these were secondary sources, they were considered relevant for inclusion in the narrative synthesis, bringing the total number of studies considered in this paper to 23.

Weight of Evidence (WoE) coding. Each reference in the REA was evaluated using a 'Weight of Evidence' (WoE) approach, in which the quality and relevance of the literature was assessed and given a strength rating of High (3), Medium (2), or Low (1). The REA used a modified version of the approach developed by the EPPI-Centre (Evidence for Policy and Practice Information and Co-ordinating Centre; Gough, 2007) which can be used for both quantitative and qualitative research. Given the tight timeframe for the REA, each study was weighted according to two (as opposed to five original) dimensions. The first dimension rated was for the confidence in the methodological rigour of the source itself, while the second dimension rated was the relevance of the paper to the REA. Studies with lower WoE scores were given less prominence in the original synthesis.

As the focus of this paper is different, the WoE scores were revisited. It was expected that confidence scores would remain largely unchanged (being focussed on rigour of the design) whereas relevance to the current paper may vary from relevance assessed for the overall REA.

Of the 19 original REA materials considered here, none were assessed at high methodological rigour. Nine were scored low, seven medium, and three papers in the original REA⁵ were not WoE scored at all as they were not concerned with interventions and were secondary sources with no way to access and assess the full methodologies. Three of the four new references identified for this paper were also secondary sources, where the primary sources could not be included (e.g. because they were foreign language publications) and could not be rated for confidence in methodology. However, for one primary full text found (Kirchhoff, Morosawa, Barkhuizen, Bussinger, Sutseyo, & Bey, 2007), a confidence score of medium was assigned. Overall, 17 papers were assigned confidence scores, with eight deemed medium and nine low; six papers were not assigned confidence scores.

As the research question for this paper supplements the initial REA – with the emphasis on the extent of offending rather than intervention – the relevance dimension was reassessed. When it came to relevance, it was felt that secondary sources could be

⁵ St Xavier's College, Mumbai (cited in DNA, 2013); Secretaría de la Mujer (cited in Jaramillo, 2014); INMUJERES (cited in Dunckel-Graglia, 2013b).

assigned scores, albeit not full Weights of Evidence. Overall, 12 were deemed to be of high relevance and 11 medium. For more information, the WoE table (Appendix 2) can be referred to in order to see WoE scores for both confidence and relevance of the studies included.

Data synthesis. The studies identified by the original REA were thus re-examined to look specifically at the question: ‘What is the extent of sexual harassment and assault on public transport worldwide?’ Data from the 23 studies relevant to the extent of sexual offending worldwide was synthesised and written up, ensuring quality, sensitivity, coherence, and relevance. The data based on papers with the highest WoE scores are duly highlighted throughout the findings section.

Limitations

There are several methodological limitations to consider. A REA is not as comprehensive as a full systematic review. The fact that initial studies were excluded based on the title alone/their position in relevance rankings may also have led to some studies with a less central focus on the subject being missed. In addition, new search terms and strings were not generated for this particular paper and, as with the initial REA, all sources had to have been produced in English (although they could come from anywhere in the world).

Findings

Wide ranging prevalence rates were reported, from around 15 to 95 percent of women having experienced some form of unwanted sexual behaviour. It was evident from the literature that the problem is far greater in some cities, countries, or continents, than others, as can be seen below and is explored further in the discussion.

Asia

In Japan, media reports indicate that groping on public transport – known as ‘chikan’ – appears to be a particular problem, with incidents typically taking place during morning rush hour, on lines with long gaps between stations and with many schoolgirl passengers (Joyce, 2005). According to a 2004 survey, two thirds of women in their 20s and 30s have been groped on trains (Chao-Fong, 2014). Other surveys reveal that between 28 percent (Okabe, 2004) and 70 percent of women and girls (Anka et al. 2001, Ishibashi, 2003⁶) have experienced chikan. In a more rigorously reported study (high relevance/medium confidence) interviews with 155 young Tokyo based women in their 20s or under, found that 48 percent had been groped on a train (Horii & Burgess, 2012).

Reports in India have also revealed high levels of sexual harassment and assault which, being ostensibly less severe, is minimised and known as ‘Eve-teasing’ (Patheja, 2014). A study in Chennai, which looked at sexual harassment on overcrowded, rush hour buses, found that of the 100 female victims interviewed, 63 percent reported having

⁶ Cited in Horri & Burgess (2012).

been subjected to several forms of sexual harassment and assault (Chockalingham & Vijaya, 2008 (high relevance/medium confidence)). These included: 'leering looks (84 percent), winking (62 percent), gesture making (71 percent), unnecessary touching (73 percent), unnecessary leaning (79 percent), (being) pressed against (65 percent)' (p.176).

Sexual assault on Indian mass transit was brutally brought to the fore in 2012 during what has become known as the 'Nirbhaya' ('fearless one') case, in Delhi, when a student was raped on a bus by six men; she died from her injuries two weeks later. In the wake of the crime, Justice Verma's Commission was established to review the existing law, policy and sentencing provisions (Verma, Seith, & Subramaniam, 2013). In the wake of the 'Nirbhaya case', but prior to the implementation of the outcome of Justice Verma's Commission, university students at St Xavier's College, Mumbai, conducted a survey of 4,500 women and girls (aged 10-40) who took trains, buses and taxis for their daily commute (reported in DNA, 2013). The survey found around half (48 percent) said that they had been verbally or physically harassed; three quarters (75 percent) did not feel safe taking public transport after sundown; and only 15 percent were reassured by the government's pledge to keep women safe on public transport.

Since the 'Nirbhaya case', figures show that there has been a significant increase in the reporting of sexual harassment and assault. Although not exclusively focussed on public transport, Dhillon and Bakaya (2014) found that complaints of harassment in public

spaces rose fivefold, from 154 in 2012 to 793 in 2013. This, it has been argued, suggests that women feel more confidence in the authorities (Venkatesan, 2013). However, in a recent study Dhillon and Bakaya (2014 (medium relevance/medium confidence)) interviewed 20 women in Delhi about their experiences and perceptions of street harassment. This revealed an ongoing 'general apathy' amongst politicians, the criminal justice system, and the police about 'Eve-teasing', with one woman saying it was still seen as a 'normal and regular affair' (p.6).

Other Asian women also report high levels of unwanted sexual behaviour on public transport. In a study which looked at the potential of women-only buses in Dhaka, Bangladesh, interviews with 120 women found that 41 percent had been physically harassed or groped on public transport by male passengers, drivers, and/or conductors, rating such harassment as the main issue of concern for them in using buses (Rahman, 2010). Focus groups with representatives from women's interest groups also said that physical harassment was the major problem for women using buses.

In Karachi, Pakistan, interviews with 108 women and focus groups and interviews with bus drivers and owners, revealed the high cost, long waiting times, absence of schedules, overcrowding, accidents, and harassment that passengers experienced (Urban Resource Centre, 2001). Women specifically described male passengers rubbing their body parts against them, drivers playing vulgar music, and conductors touching them.

A multi-national study by Action Aid explored and compared women's safety in cities and urban spaces, which included female users of public transport in Kathmandu Valley, Nepal (Taylor, 2011 (high relevance/medium confidence)). Although there is no equivalent term for 'harassment' in Nepal, the term 'hensa' is used to describe behaviours such as: staring, groping, masturbation, whistling, intimidation, and rape. Interviews with 50 women and focus groups with both men and women, found that four in five women (80 percent) had experienced hensa and two in five men (40 percent) admitted committing it. These behaviours were most often from conductors, in addition to passengers, drivers, traffic police, and army officers doing security checks.

In Jakarta, Indonesia, a pilot study by the research group on Passengers' Safety in Public Transport surveyed university students about victimization on public transport systems (Kirchhoff, et al., 2007 (high relevance/medium confidence)). They found that while the 635 students (379 female and 256 male) often underestimated the risk of sexual harassment and assault, two thirds of females and one third of males reported having been sexually molested on public transport, with many having been subjected to repeat victimisation; 39 percent of females and 17 percent of males said they had experienced this in the last year.

Whilst the literature relating to the Asian region is of variable quality in terms of the WoE assessments ascribed, it is notable that high rates of sexual harassment on public

transport are routinely reported. Figures from the most rigorous reports reflect between approximately half to two thirds of participants reporting such experiences.

South America

In South American countries, sexual harassment in public places is also widespread and often characterised/minimised as a compliment by the men who perpetrate it (Jaramillo, 2014). A survey of 17,399 residents in Bogotá, Colombia, conducted by the Secretaría de la Mujer – Bogotá’s office for women’s rights – in 2012 found that 64 percent of women had experienced unwanted sexual touching on public transport (cited in Jaramillo, 2014).

In Mexico, a 2009 study by the National Board for the Prevention of Discrimination and the federal institute for gender equality and equal opportunities for women (INMUJERES) conducted a study on violence against women on public transport in Mexico City, finding that nine in ten women had experienced sexual violence on public transport (cited in Dunkel-Graglia, 2013b).

Also in Mexico, a study used three years of ethnographic data – including interviews, a survey, the author’s own participant observation, and online comments posted on public forums – to consider the issue of women-only transport and violence against women (Dunkel-Graglia, 2013a (medium relevance/medium confidence)). Of the 15 women interviewed, each had experienced sexual assault or harassment on public transport.

Participants told how men put their hands up their skirts, pressed their erect penises against them, masturbated in front of them, and, in one case, threatened sexual violence while holding a weapon. Furthermore, a survey with 125 women commuters highlighted that seven in ten women did not feel safe using public transport (Dunckel-Graglia, 2013a).

Although two of the three sources from South America have been assessed as low confidence in the WoE assessment (or not able to be assessed), taken together, they suggest that a substantial majority of women and girls are experiencing such behaviours, with rates reported between 64 percent and 100 percent.

North America

Surprisingly, very little data was found for North America, and no research with a medium (or high) WoE rating for confidence was identified. However, an online survey of 1,790 users (63 percent female and 32 percent male) of the New York subway, USA, found that 63 percent of respondents said that they had been sexually harassed in the subway system (Stringer, 2007). One in ten reported that they had been sexually assaulted, most commonly during the morning and evening rush hours; nearly seven in ten (69 percent) respondents had felt the threat of harassment or assault; and 44 percent said they had witnessed sexual harassment (Stringer, 2007). Over 99 percent of victims

of sexual harassment and assault were female. These figures appear to be broadly consistent with those seen elsewhere in the world.

Africa

Some African countries also have indications of high levels of sexual harassment and assault on public transport. The main form of commuter transit in Nairobi, Kenya, are ‘matutu’ – public passenger vehicles, that are privately owned vans and mini-buses – in which sexual harassment and assault are common and viewed as ‘normal’ (Mungai & Samper, 2006). In over 100 interviews with matutu users, women described being indecently assaulted or groped, rubbed against, having their tops looked down, and being ejaculated on. Rape on matutu is also a crime that ‘many Kenyan women have suffered’ either by hijackers or the men who work on matutu (p.60). In Egypt the research tends to look at public spaces generally, including public transport, the streets, marketplaces, and outside schools and universities. A study commissioned by the Egyptian Centre for Women’s Rights (ECWR) surveyed 2020 participants (1010 men and 1010 women, including 109 foreign women), finding that 83 percent of Egyptian women and 98 percent of foreign women had experienced sexual harassment, most often on the streets and public transport (Shoukry et al., 2008). Types of harassment cited, included: touching; noises (e.g. whistling, hissing); ogling; stalking or following; indecent exposure; displaying sexual photographs; and repeated invitations to go out. 62

percent of men said they had carried out one or more of these behaviours and 54 percent blamed men's sexual harassment *of* women *on* women.

The available data for countries in Africa suggests that sexual harassment is widespread, although not always specifically quantified. Furthermore, figures based on research that is rated as medium or high confidence in rigour is not available. Whilst recognising these limitations, it appears that a wide range of harassing behaviours are experienced by women, and that the rates may be higher than has been identified in other regions.

Europe

Only two studies concerned Europe, beyond the UK, which is almost certainly due to the English language search criterion (insufficient time or budget for translation). However, a survey of 200 female commuters using the metro in Baku, Azerbaijan⁷, found that eight in ten women (81 percent) reported having experienced sexual harassment, with a quarter of these (26 percent) reporting it as an almost daily occurrence (Jafarova et al., 2014). Nearly six in ten victims had experienced non-physical harassment (e.g. leering, making sexual comments) and around four in ten had experienced physical harassment (e.g. groping, frotteurism). While a recent survey of 150 women on the Paris Metro found that 94 percent had experienced 'some sexist behaviour', from whistling to sexual assault. Almost three quarters of the women

⁷ Azerbaijan is sometimes classified as Europe, and sometimes as West Asia.

reported changing their behaviour or what they wore on the subway as they feared aggression (Osez le Feminisme, 2014).

Studies in the UK have found significantly lower prevalence. A YouGov survey, commissioned by the End Violence Against Women Coalition (EVAW, 2012), asked 523 London women about their experience of unwanted sexual contact or attention (such as wolf-whistling, staring, and exposure) on public transport in London. Nineteen percent had experienced such behaviour. Specifically: 14 percent of all women had experienced unwanted sexual attention; one in twenty (5 percent) of all women had experienced unwanted sexual touching; nearly a third (31 percent) of women aged 18-24 had experienced unwanted sexual attention; and nearly a quarter (24 percent) of women aged 25-34 had experienced unwanted sexual attention. Partly as a result of these experiences, 28 percent of women in London reported not feeling safe using public transport at any time of day or night.

Supporting these figures, TfL's Safety and Security surveys (high relevance/medium confidence) between April 2012 and January 2013 found that between 12 -15 percent of women reported experiencing some type of unwanted sexual behaviour (cited in Twyford, 2013). The most commonly victimised age group was 16-24; the behaviours most frequently involved staring, inappropriate touching, and verbal comments; and the incidents most commonly took place on buses, in the evenings between 5-11pm (Twyford, 2013).

As with many other regions, there is relatively little research reported that can be rated to have a medium or high degree of confidence in rigour. The two studies identified outside of the UK indicate a very high rate of sexual harassment, in line with some of the highest rates identified in other regions of the world. The data from the UK stands out for its notably lower rate of incidence than identified elsewhere.

Discussion

This study sought to uncover the ‘dark figure’ of sexual offending on public transport, using research that asked women and girls about their experiences, rather than officially recorded crime figures. The findings suggest that the problem is a considerable one, even at the lower end of reported prevalence, with estimated rates of around 15 percent in the UK to between 40 percent - 95 percent in other countries. There may be numerous reasons for the wide disparity between the UK and elsewhere. Lower figures in the UK may be partly due to an increasing awareness of sexual assault and harassment in this area, its unacceptability, and subsequent commitment by government and transport agencies to tackle the problem (Department for Transport, 2000), with initiatives being implemented to specifically target such behaviour (Twyford, 2013).

In addition, as only English language publications were included in this report, while much of Europe was *not* considered, many emerging economies *were* included. The differences in prevalence rates may therefore arguably be more fundamentally

attributable to deeply seated disparities in cultural attitudes towards women. In many of the countries considered in this review, male and female roles are very traditionally defined, with men going out into the world to work and socialise, and women staying at home to look after the house and family. As Taylor (2011) observed in relation to women's use of public transport in Nepal:

‘There is a firm gender division of roles, prescribing that women should remain within the house and take care of their families and men are the bread winners’ (p.49).

It is important to recognise that the majority of information available relating to the rates of sexual harassment on public transport is not reported in resources that can be considered to demonstrate high methodological rigour. Whilst some of the studies may be more rigorously conducted than is apparent in the reporting of them, in the context of this report it has not been possible to establish this. Despite these limitations, the findings synthesised in this paper provide a clear indication that sexual harassment on public transport is an issue of international concern, and that affects a significant proportion of women and girls.

Impact of sexual harassment on public transport

Dhillon and Bakaya (2014), in their study of street harassment in Delhi, note that this may create an ‘informal ghettoization’ of women, which feminists argue may be

grounded in patriarchal needs to control women and their sexuality, limiting their mobility so that their movements and activities can be continuously monitored.

When women *are* in public spaces they are governed by strict, yet unwritten, rules to behave in certain ways, such as dressing and acting modestly (Sen, 1984). If they break these rules, they are deemed to blame for any harassment or assault that occurs. For example, the majority of Egyptian male respondents in Fahmy et al. (2014) said that women are mainly to blame for harassment, with half citing tight clothing to be the cause and over a third saying that women want to be harassed and are 'asking for it'. As noted by Dhillon and Bakaya (2014): within patriarchal societies 'women are often treated as objects ... [which] is considered natural and justified' (p.8).

With such engrained misogyny, women venture into public spaces at their peril, frequently afraid. In Mexico City, it is noted that women who use public transport must navigate 'what might be termed a 'hyper-masculinised' space, where large numbers of men behave in ways which are oppressive to women' (Dunckel-Graglia, 2013, p.271). Fear of using public transport may have multiple adverse effects on women including amongst victims of unwanted sexual behaviour: mental health problems (Horii & Burgess, 2012); agoraphobia (Fahmy et al., 2014); disturbed sleep, and nightmares (Battered Womens Support Services, 2014). Victims, and those who fear victimisation, may feel angry, disgusted (Jafarova et al., 2014), upset, anxious, humiliated (Fahmy et al., 2014), objectified, and frustrated (Dhillon & Bakaya, 2014).

Girl's and women's fears may also impact upon when, where, how, and indeed if, they travel. Women may change their own behaviour when travelling, for example, they may alter how they present themselves, such as 'dressing more conservatively' (Fahmy et al., 2014, p.47). They may also position themselves in certain ways on public transport so that there is nobody behind them (Rossi, 2014). Some women also report putting bags between themselves and other passengers and avoiding eye contact (Dhillon & Bakaya, 2014). Others stop travelling alone, take a male companion to protect them (Dhillon & Bakaya, 2014), or travel in groups (Tulloch, 2000).

Women's fear of travelling on public transport may lead to them choosing only to take it at times of day perceived as safer, or even stop them using it altogether (Easton & Smith, 2003). In this case, they may seek alternative means of travel, such as taxis (Jafarova et al., 2014) or private transportation (Smith & Clarke, 2000). However, as these options are more expensive, or may be unavailable, women often cannot access them, particularly in low income or deprived areas (Peters, 2001; Easton & Smith, 2003). Afraid to use public transport and with no access to, or unable to afford, private, this may mean that they become 'transit captive' (Smith, 2008).

Even in more affluent areas, where women have both the means and access to private transport, steps taken to promote 'greener' cities may actively discourage car-use (e.g. Department for Transport, 2000). Thus, the inability to use private transport and fear of

using public transport may affect all types of women in all types of settings, impacting upon their freedom and ability to go about their normal lives:

‘This fear may preclude them from a basic right of the city – the ability to move carefree from origin to destination without worrying that a “wrong choice” of mode, transport setting, or time of travel could have consequences for their safety’ (Loukaitou-Sideris, 2009, p.105).

Such travel restrictions not only impinge upon women’s basic rights and freedoms but may also lead to social exclusion through the inability to access activities such as employment, education, childcare and healthcare (Easton & Smith, 2003). As women worldwide are increasingly working and studying outside the home and socialising in urban environments (Dhillon & Bakaya, 2014), they need now, more than ever, to be mobile and able to use public transport alone, in safety (Taylor, 2011).

Implications

To date, the priorities of public transport operators have been mainly to create reliable and dependable systems; it is only recently that the need for *safe* transport, particularly for women, has even been recognised. The first step in addressing this issue is establishing the true extent of unwanted sexual behaviour on public transport. As seen in this paper, this has begun through research, surveys, and studies that ask women (and men) about their experiences of public transport. However, in order both to capture the

real extent and nature of offending, and to catch and punish offenders, more proactive strategies also need to be taken.

A key approach is encouraging women to report incidents. Reporting is emphasised by Project Guardian – run by the BTP, TfL, Metropolitan Police and City of London Police – which aims to reduce unwanted sexual behaviour on public transport in London and is now being extended and rolled out across the UK as part of the ‘Report it to stop it’ campaign (British Transport Police, 2015). The campaign emphasises the importance of reporting and has widely distributed written information about sexual harassment and assault on public transport and how victims should report it. Similar initiatives, aimed at encouraging women to report such behaviour, have been developed in the USA by the Massachusetts Bay Transportation Authority Police (Twyford, 2013) and the New York Police Department and New York City Transit (NYCT) (Kabak, 2008).

However, the problem is not merely about (under)reporting. As noted by Stringer (2007), in his report on sexual harassment and assault on the New York subway system: ‘Inefficiencies in the collection and provision of crime data are a key impediment to better crime and safety management’ (p.17). As noted in the introduction, data on sexual harassment and assault on public transport is often not collected separately but falls within other categories (Stringer, 2007) or under ‘umbrella’ categories (Twyford, 2013). Yet more detailed information is crucial in order to gain a more complete understanding of the types of sexual harassment and offending on public transport, as well as how

often and where it occurs, in order to provide targeted interventions and responses (Stringer, 2007). Such interventions are identified and described in detail in the REA upon which this paper is based and recommendations made for how to protect more women, and catch more offenders, in the future (BLIND, 2015).

References

Adler, J.R., Edwards, S.K., Scally, M., Gill, D., Puniskis, M.J., Gekoski, A. & Horvath, M.A.H (2016). What works in Managing Young People Who Offend? A Review of the International Evidence. London: Ministry of Justice.

Anka, H., et al., 2001. Chikan-sut_oka ni taisuru fuankanto taishoni kansuru kenky_u [online]. Tokyo, Research Foundation for Safe Society. Available from: http://www.syaanken.or.jp/02_goannai/10_higai/higai1303_01/higai1303_01.htm Cited in: In Horii, M., & Burgess, A. (2012). Constructing sexual risk: 'Chikan', collapsing male authority and the emergence of women-only train carriages in Japan. *Health, Risk & Society*, 14(1), 41-55.

Battered Women's Support Services (2014). *How can we improve public transit safety for women?* Retrieved from <http://www.bwss.org/how-can-we-improve-public-transit-safety-for-women/>

Booth, A., Meier, P., Shapland, J., Wong, R. & Paisley, S. (2011). [*Alcohol pricing and criminal harm: a rapid evidence assessment of the published research literature*](#). Sheffield: ScHARR

British Transport Police (2014). *Personal communication*.

British Transport Police (2015). *Report it to stop it: Tackling unwanted sexual behaviour on public transport*. Retrieved from: http://www.btp.police.uk/advice_and_information/how_we_tackle_crime/report_it_to_stop_it.aspx

British Transport Police (2016). *Policing your journey. Annual Report 2015/16*. Retrieved from: <http://www.btp.police.uk/PDF/BTP%20Annual%20Report%202015-16%20FINAL.pdf>

Chao-Fong, L. (2014, November 5). Assaulted, angry and afraid: London women face barrage of abuse on public transport, says research. *South West Londoner* [online]. Retrieved from <http://www.swlondoner.co.uk/assaulted-angry-afraid-london-women-facebarrage-abuse-public-transport-according-research/>

Chockalingam, K., & Vijaya, A. (2008). Sexual harassment of women in public transport in Chennai city: A victimology perspective. *The Indian Journal of Criminology and Criminalistics*, XXIX(3), 167-184.

Davies, P. (2003). *The Magenta Book. Guidance notes for policy evaluation and analysis*. Chapter 2. What do we already know? London: Cabinet Office.

Department for Transport (2000). *Transport Ten Year Plan*. London: Department for Transport.

Dhillon, M., & Bakaya, S. (2014). *Street harassment: A qualitative study of the experiences of young women in Delhi*. SAGE Open, 4(3), 1-11.

DNA, 5 September 2013. *Only 15 percent women feel safe in public transport*. Retrieved from: <http://www.dnaindia.com/mumbai/report-only-15-women-feel-safe-in-public-transport-1884478>

Dunckel-Graglia, A. (2013). 'Pink transportation' in Mexico City: Reclaiming urban space through collective action against gender-based violence. *Gender and Development*, 21(2), 265-276.

Dunckel-Graglia, A. (2013). Women-only transportation: How "pink" public transportation changes public perception of women's mobility. *Journal of Public Transportation*, 16(2), 85-105.

Easton, H., & Smith, F. (2003). *Getting there: Reducing crime on public transport*. London: NACRO.

End Violence Against Women (2012, March 30). *Poll reveals 1/4 women don't feel safe on London public transport* [web post]. Retrieved from <http://www.endviolenceagainstwomen.org.uk/news/14/poll-reveals-14-womendont-feel-safe-on-london-public-transport>

Fahmy, A., Abdekmonem, A., Hamdy, E., & Badr, A. (2014). *Towards a safer city; sexual harassment in greater Cairo: Effectiveness of crowdsourced data*. Cairo: HarrassMap

Gekoski, A., Gray, J.M., Horvath, M.A.H., Edwards, S., Emirali, A. & Adler, J. (2015). *'What Works' in Reducing Sexual Harassment and Sexual Offences on Public Transport Nationally and Internationally: A Rapid Evidence Assessment*. London: British Transport Police.

Gough, D. (2007). Weight of evidence: A framework for the appraisal of the quality and relevance of evidence. In J. Furlong & A. Oancea (eds) *Applied and practice-based research*. Special edition of Research Papers in Education, 22, 213-228.

Horii, M., & Burgess, A. (2012). Constructing sexual risk: 'Chikan', collapsing male authority and the emergence of women-only train carriages in Japan. *Health, Risk & Society*, 14(1), 41-55.

Horvath, M.A.H., Davidson, J.C., Grove-Hills, J., Gekoski, A. and Choak, C. (2014). "It's a lonely journey" A Rapid Evidence Assessment on intrafamilial child sexual abuse. London: Office of the Children's Commissioner.

Ishibashi, E. (2003). Naze onna wa otoko o miruto chikan dato omounoka, naze otoko wa onna nofukaikanga wakaranainoka: Chikan-dairons_o!. Tokyo: BKC. Cited in: Horii, M., & Burgess, A. (2012). Constructing sexual risk: 'Chikan', collapsing male authority and the emergence of women-only train carriages in Japan. *Health, Risk & Society*, 14(1), 41-55.

Jafarova, T., Campbell, S., & Rojas, W. S. (2014). *AZE: Rapid assessment on sexual harassment in the Baku metro rail - final report*. Philippines: Asian Development Bank.

Jaramillo, J. J. (2014, August 1) Can undercover cops end sexual assault on public transportation. *Slate Magazine* [online]. Retrieved from http://www.slate.com/blogs/xx_factor/2014/08/01/undercover_cops_for_sexual_assault_bogot_police_crack_down_on_sexual_assault.html

Joyce, C. (2005, May 15). Persistent gropers force Japan to introduce women-only carriages. *The Telegraph* [online]. Retrieved from <http://www.telegraph.co.uk/news/worldnews/asia/japan/1490059/Persistentgropers-force-Japan-to-introduce-women-only-carriages.html>

Kirchhoff, G. F., Morosawa, H., Barkhuizen, J., Bussinger, C., Sutseyo, H., & Bey, J. F. (2007). The Asian Passengers' Safety study of Sexual molestation on trains and buses: The Indonesian Pilot study, *Acta Criminologica*, 20 (4), pp. 1-13.

Lambillion, A. (2012). Serious sexual offences problem profile. London: British Transport Police.

Lawlink. (1999). *Plan it safe: From wasteland to heartland* [web post]. Retrieved from http://www.lawlink.nsw.gov.au/swp/swp.nsf/pages/swp_5

Lo, C. (2013). *Project Guardian: Standing up to sexual harassment* [web post]. Retrieved from <http://www.railway-technology.com/features/feature-project-guardian-sexual-harassment-public-transport/>

Loukaitou-Sideris, A. (2009). 'What is blocking her path? Women, mobility, and security'. In S. Herbel & D. Gaines (Eds.) *Women's Issues in Transportation: Summary of the 4th International Conference* (pp 103-121). Washington, D.C.: Transportation Research Board.

Mungai, M. W., & Samper, D. A. (2006). 'No mercy, no remorse': Personal experience narratives about public passenger transportation in Nairobi, Kenya. *Africa Today*, 52, 51-82.

Okabe, C., 2004. Study of the 'Carriage for Women Only'. *Kurume Shin-ai Women's College Bulletin*, 27, 57–66.

Osez le Feminisme [web post] (2014). *Pourquoi cette campagne?* Retrieved from <http://takebackthemetro.com/>

Patheja, J. (2010, October 27). *Case study: Blank noise* [web post]. Retrieved from <http://www.indiasocial.in/case-study-blank-noise/>

Peters, D. (2001). *Gender and transport in less developed countries: A background paper in preparation for CSD-9*. London: UNED Forum.

Project Guardian. (2013). Project Guardian leaflet. London: BTP. Retrieved from Retrieved from: http://www.btp.police.uk/pdf/Project_percent20Guardian_percent20Leaflet.pdf

Rahman, M. S. (2010). Bus service for 'Women only' in Dhaka city: An investigation. *Journal of Bangladesh Institute of Planners*, 3, 17-32.

Rivera, R. L. K. (2007). Culture, gender, transport: Contentious planning issues. *Transport and Communications Bulletin for Asia and the Pacific*, 76, 1-20.

Rossi, M. (2014, March 21). Why sexual assault goes almost unpunished on Brazil's public transport. *El Pais* [online]. Retrieved from http://elpais.com/elpais/2014/03/21/inenglish/1395410628_963335.html

Sen, G. (1984). Subordination and sexual control: A comparative view of the control of women. *Review of Radical Political Economics*, 16, 133-142.

Shoukry, A., Hassan, M. & Komsan, N.A. (2008). *"Clouds in Egypt's sky", Sexual harassment: From verbal harassment to rape*. Cairo: The Egyptian Center for Women's Rights.

Smith, M. J. (2008). Addressing the security needs of women passengers on public transport. *Security Journal*, 21(1-2), 117-133.

Smith, M. J., & Clarke, R. V. (2000). Crime and public transport. *Crime and Justice*, 27, 169-233.

Stringer, S. M. (2007). *Hidden in plain sight: Sexual harassment and assault in the New York City subway system*. NY: Office of the Manhattan Borough President.

Taylor, A. (2011). *Women and the city: Examining the gender impact of violence and urbanization: A comparative study of Brazil, Cambodia, Ethiopia, Liberia, and Nepal*. Johannesburg: Actionaid.

Transport for London (2013). *Project Guardian: Encouraging reports of unwanted sexual behaviour on London's Transport Network*. London: Transport for London.

Tulloch, M. (2000). The meaning of age differences in the fear of crime. combining quantitative and qualitative approaches. *British Journal of Criminology*, 40(3), 451-467.

Twyford, R. (2013). *Report: Project Guardian- Public awareness campaign rationale*. London: Project Guardian.

Urban Resource Centre. (2001). Urban poverty and transport: A case study from Karachi. *Environment and Urbanization*, 13, 223-233.

Verma, J. S., Seth, L., & Subramaniam, M. (2013). *Report of the committee on comments to the criminal law*. New Dehli: Committee on Comments to the Criminal Law.

Venkatesan, J., October 31, 2013. *Rape cases double, molestation up four times in Delhi*. The Hindu. Retrieved from <http://www.thehindu.com/news/cities/Delhi/rape-cases-double-molestation-up-4-times-in-delhi/article5298622.ece>

Appendix 1: Search Terms

<i>Behaviour terms (OR separator):</i>	<i>Transport terms (OR separator)</i>	<i>Prevention terms (OR separator)</i>
Rape Harass* Flash* Frotteur*	Bus* Shuttle* Rail* Transport*	Prevent* Interven* Program* Campaign*

“Sexual violence”	Train*	Strateg*
“Sexual assault”	Tram*	Evaluat*
“Sexual activity”	Autobus	Review*
“Sexual harassment”	Underground	Process*
“Sexual abuse”	Tube	Impact*
“Sexual offence”	Subway	Outcome*
“Sexual offense”	Trolleybus	Polic*
“Sexual offences”	Metro	Report*
“sexual offenses”	Airplane	Operation*
“Sex offence”	Aeroplane	Scheme*
“Sex offense”	Plane	Training
“Sex offences”	Airport	Education
“Sex offenses”	Aeroport	Reduc*
“Sexual aggression”	Station	Lower
“Sexual Offender”	Transit	Increase*
“Sexual Offenders”	Coach	Patrol*
“Sex offender”	“Public transport”	Monitor*
“Sex offending”	“mass transit”	Camera*
“Unwanted sex”	“rapid transit”	Surveillance*
“Unwanted sexual”	Minibus	CCTV
“Sex crime”	“Cruise ship”	“Closed circuit”
“Indecent assault”	Cab*	Secur*
“Indecent exposure”	Taxi*	Agen*
“Public indecency”	“Cable car”	Authorit*
“Unwanted exposure”	Transrapid	Federal
“Sexual behaviour”	Ferr*	Sherriff
“Sexual behavior”		Enforc*
“Illicit sex*”		Guard

“Sexual attack” “Sex attack” “Sex attacks” “Sexual Abusers” Fetish* Grop* Indecen* Masturbat* Lewd Exhibitionis*		Staff Officer Person* Alarm Deter Watchman Safe*
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Appendix 2: Sources, References and Weight of Evidence scores

Source ⁸	Reference	Relevance Score	Confidence score
R	Anka et al., 2001 (cited in Horii, M. & Burgess, A., 2012)	MEDIUM	N/A
G	Chao-Fong, L. (2014)	HIGH	LOW
G	Chockalingam, K., & Vijaya, A. (2008)	HIGH	MEDIUM
G	Dhillon, M., & Bakaya, S. (2014)	MEDIUM	MEDIUM
R	Dunckel-Graglia, A. (2013a)	MEDIUM	MEDIUM
C	End Violence Against Women (2012)	HIGH	LOW
G	Fahmy, A., Abdekmonem, A., Hamdy, E., & Badr, A. (2014).	MEDIUM	MEDIUM
G	Horii, M. & Burgess, A. (2012)	HIGH	MEDIUM
G	INMUJERES (cited in Dunckel-Graglia, 2013b)	MEDIUM	N/A

⁸ A=Academic; G=Google; R=Reference lists; C=Call for papers

R	Ishibashi, E. (2003) (cited in Horii, M. & Burgess, A., 2012)	MEDIUM	N/A
G	Jafarova, T., Campbell, S., & Rojas, W. S. (2014)	HIGH	LOW
G	Kirchhoff, G. F., Morosawa, H., Barkhuizen, J., Bussinger, C., Sutseyo, H., & Bey, J. F. (2007).	HIGH	MEDIUM
A	Mungai, M., & Samper, D. A. (2006)	MEDIUM	LOW
R	Okabe, C., 2004 (cited in Horii, M. & Burgess, A., 2012)	HIGH	N/A
G	Osez le Feminisme (2014)	HIGH	LOW
G	Rahman, M. S. (2010)	MEDIUM	LOW
G	Secretaría de la Mujer (cited in Jaramillo, 2014)	HIGH	N/A
G	Shoukry, A., Hassan, M. & Komsan, N. A. (2008)	MEDIUM	LOW
C	Stringer (2007)	HIGH	LOW
G	St Xavier's College, Mumbai (cited in DNA, 2013)	MEDIUM	N/A
G	Taylor, A. (2011)	HIGH	MEDIUM
C	Transport for London (2013)	HIGH	MEDIUM
A	Urban Resource Centre (2001)	MEDIUM	LOW