

Impact case study (REF3)

Institution: Middlesex University		
Unit of Assessment: UoA4: Psychology, Psychiatry and Neuroscience		
Title of case study: Preventing Railway Suicide		
Period when the underpinning research was undertaken: March 2015-October 2016		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Lisa Marzano Ian Kruger	PI – Associate Professor (Mdx) Research Assistant (Mdx)	2015 to present (for both)
Period when the claimed impact occurred: September 2015 - ongoing		
Is this case study continued from a case study submitted in 2014? No		
<p>1. Summary of the impact Research conducted at Middlesex contributed to a decrease in suicides on the London Underground Network (LU) through practice changes, staff training and an award-winning public awareness campaign [g-1] which “successfully changed people’s behaviour, increasing their intent to take action, as well as increasing their understanding of how to recognise that someone needs help” [g-2]. Impacts in other countries (e.g., Germany, the Netherlands) and contexts (including other public places and Criminal Justice settings) followed. Universities UK recognised Dr Marzano as a “Nation’s Lifesaver” for “saving lives and making a life-changing difference to our health and wellbeing” [g-3]. She also received a “Lifesaver Award” from Transport for London (TfL).</p>		
<p>2. Underpinning research There is a suicide on the British rails approximately every 35 hours. The impact on all those affected, including family and friends, and the rail staff and fellow commuters who are present, is clearly devastating. Training transport police officers may contribute to reducing suicides on the railways by increasing knowledge, attitudes and confidence in suicide prevention [1]. However, the success of any preventative strategy also rests on understanding the factors influencing and discouraging the decision to attempt suicide on the railway networks, including from a lived experience perspective. The suicide-prevention charity Samaritans, on behalf of the rail industry, commissioned research at Middlesex to increase understanding of why people take their lives on the railways to fill an important evidence gap both nationally and internationally.</p> <p>The research was carried out between March 2015 and October 2016. It involved an online survey (N=1,804) and qualitative interviews with individuals who had contemplated or attempted suicide by train (N=34) [2]. To explore what behaviours might immediately precede a suicide or attempted suicide at a railway location, first-person accounts of suicidality on the railways were also analysed alongside CCTV footage of individuals who died by Railway Suicide (RS) (N=16) [3].</p> <p>To maximize its impact, this work was supported from the outset by an expert advisory group, and clear plans were formed to enable dissemination of findings to closely-identified practice, policy and academic audiences. This included efforts to raise awareness of the study during the data collection phase (e.g., to rail employees via the bi-monthly Suicide Prevention Report issued by the Rail Industry Suicide Stakeholder Group (RISSG), and through an online blog (posted September 2015) hosted by Middlesex for wider dissemination [g-4]).</p> <p>Key findings of the research:</p>		

- Factors contributing to an individual choosing the railway as a suicide method included: perception of quick and certain lethality, ease of access, familiarity of the site, avoiding intervention, influence of the media (reinforcing lethality) and announcements acting as a trigger [2].
- Key deterrents against RS were its traumatic impact on others (especially train drivers), the possibility of surviving with injuries, and of being interrupted by a bystander [2].
- A third of the RS attempts described by survey participants were impulsive and influenced by their immediate surroundings [2].
- Several behaviours may be identifiable in the moments leading up to a suicide or suicide attempt on the railways, which present opportunities for intervention: station hopping and platform switching, limiting contact with others, positioning oneself at the 'incoming' end of the track, allowing trains to pass by and carrying out repetitive behaviours [3].

These findings open up possibilities for influencing suicidal behaviour based on dissuasion and reducing cognitive availability (e.g., via responsible media reporting), in addition to preventative measures to restrict access to means and delay impulsive behaviour (e.g., via third-party interventions).

3. References to the research

- [1] Marzano, L., Smith, M., Long, M., Kisby, C. & Hawton, K. (2016). Police and Suicide Prevention: Evaluation of a training programme. *Crisis*, 37, 194-204.
- [2] Marzano, L., Mackenzie, J.M., Kruger, I., Borrill, J. and Fields, B. (2019). Factors deterring and prompting the decision to attempt suicide on the railway networks: findings from 353 online surveys and 34 semi-structured interviews. *British Journal of Psychiatry*, 215, 582-587.
- [3] Mackenzie, J. M., Borrill, J., Hawkins, E., Fields, B., Kruger, I., Noonan, I., & Marzano, L. (2018). Behaviours preceding suicides at railway and underground locations: a multimethodological qualitative approach. *BMJ Open*, 8, e021076.

4. Details of the impact

The underpinning research generated new evidence of why and how individuals attempt suicide on the railways. This work has been described by railway stakeholders as "seminal" [a] and "a watershed moment [...which] shaped thinking about rail-related suicides and their management" [b]. Our findings have led to a series of suicide prevention activities coordinated by RSSG, Transport for London (TfL), and Samaritans, contributing to a significant decrease in suicides on the LU [c], and increase in life-saving interventions at railway locations by staff and members of the public [b, d].

Fewer suicides on the LU and other changes in policy and practice influenced and informed by Middlesex research

In 2018 TfL rolled out a suicide prevention training course for staff [c], based on our research insights on how suicidal people behave at rail locations [3]. To date, 4,200 individuals, 59% of all TfL station staff, have received such training. This training programme has been associated with an unprecedented drop in suicide of a third in two years (the first two-year consecutive drop for almost twenty years, and one of the lowest levels of completed suicide on the London Underground network (LU) in recent times, despite a rise in the UK suicide rate by all methods) [c]. At the same time, staff-led interventions almost doubled, and changes were introduced to the LU CCTV review system to operate in a more evidence-informed fashion (e.g., TfL have built a framework to assess incidents based on different types of 'pre-suicidal' behaviour identified by our research, which is being used to identify longer-term trends and novel prevention strategies, in consultation with the research team) [c]. In recognition of the impact of the research on suicide rates on the LU, the PI received a "Lifesaver Award" by TfL in 2019.

Our research also influenced changes in practice within the British Transport Police (BTP). These include the gathering of more relevant information in relation to rail fatalities and crisis

interventions, in turn leading to several important insights. Significant changes in operational focus followed (e.g., changes to police visibility and patrol patterns in the immediate aftermath of a RS to prevent further incidents and increase the likelihood, and perceived likelihood, of intervention [3]) [please see corroborating evidence from BTP [a] for full details].

Our work has also been commended for “continuing to shape the [rail] industry's relationship with its long-term partner, Samaritans” [b]. For example, based on our work in this area [1-3], we have developed and delivered training to Samaritans staff who train rail employees (over 20,000 to date) on how to identify, approach and support a potentially suicidal person (September 2020) [d]. Our findings [2] also underpin Samaritans’ guidelines for responsible reporting of rail suicide [d], and featured in Samaritans’ (as well as the rail industry’s) submissions to the Health Select Committee Suicide Prevention [g-5] and the Transport Committee Rail Safety Inquiry [g-6].

‘Small Talk Saves Lives’: influencing life-saving interventions on the GB railway network and beyond

Small Talk Saves Lives [g-1] is an award-winning media campaign launched in November 2017 (with a further three phases since then, and a fifth one due in the Spring of 2021). It was developed by Samaritans and RSSG, with direct and ongoing input from the research team, because of our finding that suicidal thoughts at railway locations are often temporary, and suicidal behaviours frequently impulsive and deterred (or at least interrupted) by the presence and intervention of third parties (be it simply by a smile or brief exchange) [2]. The campaign used real-life examples of how people had used small talk to intervene and save someone’s life, following piloting with commuters, the general public and people with lived experience of suicidality.

A total of 47 awareness events were organised at stations across the country to launch *Small Talk Saves Lives*. An impressive amount of media coverage followed, with 341 items appearing across broadcast (e.g., BBC Breakfast interview with Marzano), print and online media, creating more than 158 million opportunities for people to see or hear the campaign’s messages [b, d]. Importantly, the campaign “demonstrated real impact, with 74% of the public more likely to intervene and help someone after seeing the campaign” [g-7]. Data recorded by the BTP showed that the number of ‘life-saving interventions’ made by members of the public on the GB railway network in the month the campaign was launched was over three times higher than in the previous month [g-8]. As a result, the campaign and our research featured in the Fourth Progress Report of the Cross-Government Outcomes Strategy to Save Lives (2019), for “successfully changing people’s behaviour, increasing their intent to take action, as well as increasing their understanding of how to recognise that someone needs help, and knowledge of how to intervene safely” [g-2].

Following the success of *Small Talk Saves Lives*, a campaign to involve the public in suicide prevention on the railways was launched in the Netherlands [e] and Germany [f], and in 2019 the Thames Water Safety Forum also signed up to build on *Small Talk Saves Lives*, as part of a new Drowning Prevention Strategy. Current plans to translate the campaign for use in Japan will further increase its reach and impact, alongside our active involvement with the *Safer Public Spaces Network* [g-9] (e.g., we are currently replicating key elements of the underpinning research in relation to coastal locations (with funding from Public Health England) and road-related methods (with Highways England) to explore how best to support people in crisis at these and other public locations).

In addition, our findings about the role of bystanders in suicide prevention [2] led to the commissioning of further contract research to increase understanding of third-party interventions, also from the perspective of those making (or withholding) such interventions. A team led by the PI carried out a programme of research (funded by the rail industry) between 2018 and 2020, for which it was recognised by Universities UK as a “Nation's Lifesaver”, one of “the top 100 individuals or groups based in universities across the country whose work is saving lives and making a life-changing difference to our health and wellbeing” [g-3]. This work

was in turn the catalyst for plans to train 16,000 Barristers working in England and Wales in suicide prevention, and on this basis, was brought to the attention of all members of the Courts and Tribunals Judiciary of England and Wales (e.g., via an article in the April 2020 edition of the Mental Health Journal). By extension, this could have a profound impact for the many thousands of litigants who access the Justice System.

Impact on policy and practice around suicide-related communications

Our research showed that people often attempt RS because of an inaccurate perception (fuelled by news and online sites) of quick and certain lethality [2]. Therefore, tackling exaggerated perceptions of lethality may help reduce suicides by train. To take forward this research recommendation, a Task and Finish Group (chaired by BTP) was set up in August 2016 (until August 2017), and two workshops were carried out with experts from a range of fields and industries (January and July 2017). As a result of these, the Rail Safety Standards Board (RSSB) Annual Safety Performance Report now includes data (not previously released to the public) about non-fatal suicide attempts on the railways, and BTP have altered their official communication strategy for suspected suicides and injurious attempts, to influence public discourse around the perceived lethality of the railways (e.g., press releases or social media updates are no longer issued regarding suspected suicides and attempts, unless the person survives [a]). Based on our finding that railway suicidality can be triggered by suicide-related communications [2], TfL also recently reviewed their station and social media announcements of suicidal behaviour on the LU (now changed to “casualties on the tracks”, to avoid drawing attention to fatalities), and in 2019 Network Rail commissioned further research and consultation to explore the potential impact of station signage and announcements [b]. This has in turn led to a ‘Dissuasion Campaign’ (due to be launched in 2021) to deter people from attempting suicide by train.

Similarly, our research influenced a number of strategic decisions around how, when, and to whom suicidal behaviour on the railway is communicated in the Netherlands [e], where suicides by train decreased by 10% in 2019. This includes public communications about suicide attempts on the rails that did not result in death, whilst sharing as little as possible about fatalities (to tackle perceptions of effectiveness), as well as media stories to highlight the impact of suicide by train on others, in particular drivers and other staff (because identified by our research as a major deterrent against this method).

5. Sources to corroborate the impact

- [a] British Transport Police
- [b] Network Rail
- [c] Transport for London
- [d] Samaritans
- [e] ProRail, Netherlands
- [f] Caritas Berlin
- [g] Links to impact cited in the text