Institution: University of Westminster		
Unit of Assessment: 3 Allied Health Professions		
Title of case study: Suicide prevention in the context of probation and transport settings		
Period when the underpinning research was undertaken: 2011 – 2019		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s): Jay-Marie Mackenzie Jo Borrill	**Role(s) (e.g. job title):** Senior Lecturer Senior Lecturer	**Period(s) employed by submitting HEI:** 03/2015+; 09/2006 – 09/2017
Period when the claimed impact occurred: Aug 2013 – Dec 2020		
Is this case study continued from a case study submitted in 2014? ~~Y~~/N		

1. Summary of the impact (indicative maximum 100 words)

Suicide is a global health problem. According to the World Health Organization (WHO, 2020), a person dies by suicide worldwide every 40 seconds. Dr Mackenzie and Dr Borrill take a 'collaborative contextual approach' to suicide prevention: the research occurs through collaboration with mental health professionals (forensic psychologists) and mental health charities (Samaritans) working with or within organisations seeking to understand the causes of suicide in their area of operation. By providing such meaning and insight, and research-based recommendations for the prevention of suicide, collaborating partners are able to shape prevention strategies to their specific context. Two examples are described in this case study.

Suicide in probation settings: the research has informed the National Probation Service (NPS) London and National level suicide prevention strategies, staff practitioner guides, and targeted training, which has aided in the lowering of suicide rates within probation service users in regions where it has been rolled out.

Suicide in transport settings: the research informed the Samaritans' railway campaign 'Small Talk Saves Lives' which successfully increased public interventions to help those in distress, and reduced suicides on the London Underground by changing their messaging, staff training, and use of CCTV.

2. Underpinning research (indicative maximum 500 words)

Suicide in Probation Settings: In 2011 Mackenzie and Borrill formed a collaboration with the NPS to help them to understand and prevent suicides of probation service users; an area in which very little research existed. To redress this the researchers undertook a series of studies into suicidal behaviours by offenders serving their probation sentences.

The quantitative strand of research involved in-depth analysis of the records of service users who had died by suicide whilst serving their probation sentence (n=28) [1], and large-scale analysis of staff logs (N=38,910) on OAYs (Offender Assessment System for Risk – electronic records) to understand which factors staff identified when predicting risk of suicide [2]. The latter study revealed that working with offenders at risk of suicide is a regular element of probation practice, pressing the need for awareness raising within staff of prominent suicide risk factors and training in this area to all staff [2]. The lack of an understanding of risk factors – the complex association of events and experiences that may contribute towards pathways to suicide – also emerged as a prominent issue in the study of service users who had taken their own lives whilst under supervision [1]. The researchers thus recommended undertaking routine review(s) of suicide risk when instigating warning and breach processes and alerting staff to the significance of missed appointments [1].

These findings and recommendations were reinforced by qualitative research, funded by The Sir Halley Stewart Trust, that provided insight from the experiences of service users who had made near-lethal suicide attempts whilst serving their probation sentence [3] and from probation staff who had been impacted by their exposure to such suicidal behaviours [4]. Such research was devised in response to their NPS partners' request for such data.

Due to the vulnerable nature of the potential sample base, it was difficult to recruit participants to study [3], however the seven participants who did engage undertook in-depth interviews that provided a rich source of lived experience that the researchers analysed using IPA (Interpretative Phenomenological Analysis). The analysis provided greater insight into what can moderate, and thus prevent, suicidal feelings. These factors fell into four clusters relating to: experiences of loss, difficulties with trust, the loss of control, and struggles to find a purpose. The researchers suggest that countering the last cluster, by providing information to service users on how others, such as

these participants, had subsequently gained meaning in their life, would help to subdue the other three clusters [3].

Study [4] sought to explore the experiences of probation staff working with service users who have carried out suicide, attempted suicide, or self-harm. Through the thematic analysis of thirteen in-depth interviews, the researchers identified five key areas of importance in relation to staff encounters with suicidal behaviours and that such behaviour is evident in service users across the various levels of offending; not just those assessed as being at high risk of reoffending. This is important because the management of probation service users is split between the NPS, for high-risk offenders, and private sector Community Rehabilitation Companies (CRCs), for low-to-medium risk offenders. The researchers recommended that managers have a vital role in supporting staff across all parts of the probation service and so should be provided with specific training to help them provide this support [4].

Suicide in Transport Settings: Mackenzie and Borrill were co-investigators on a project led by Dr Lisa Marzano (Middlesex University) and commissioned by the mental health charity the Samaritans on behalf of the rail industry, to understand why people choose to end their lives on the railway and what can be done to prevent it. Though there is a suicide on the British railways every 36 hours – producing devastating consequences for families, friends, staff, commuters, and the rail industry (whole industry cost of one suicide on average is in the region of £275,000) – little research had been conducted in this specific context.

As part of a multidisciplinary project team using a mixed methods approach, the Westminster researchers specifically oversaw in-depth qualitative interviews with 34 people who had thoughts of, or had attempted, suicide at rail locations. These interviews included specific questions about the cognitive, affective, and visual imagery processes that lead up to rail suicidal thoughts and/or behaviour, including their state of mind and behaviours while planning or preparing for the act. An especially notable finding was that railway stations were considered a desirable place to carry out suicide as intervention from others in obstructing a suicide attempt was perceived to be relatively unlikely [5]. This finding was key to the adoption of the successful active bystander campaign described below.

The Westminster researchers also analysed the CCTV footage of 16 individuals who had died by suicide at 16 different rail locations in order to identify and catalogue indicators of suicidal behaviours. This research resulted in the identification of several behaviours that people may carry out before a suicide or suicide attempt at a rail location, including station hopping and platform switching, limiting contact with others, positioning themselves at the end of the track where the train approaches, and repetitive behaviour patterns [6]. These findings would result in direct changes in practice at the London Underground, as described below.

3. References to the research (indicative maximum of six references)

[1] Borrill, J., Cook, L.C. & Beck, A. (2016) Suicide & Supervision: Issues for Probation Practice. *Probation Journal.* 64 (1): 6-19

[2] Cook, L.C. & Borrill, J. (2013) Identifying suicide risk in a metropolitan probation trust: risk factors and staff decision-making. *Legal and Criminological Psychology. 20*: 255-266.

[3] Mackenzie, J. M., Cartwright, T., & Borrill, J. (2018) Exploring suicidal behaviours by probation clients—a qualitative near-lethal study. *The Journal of Public Health*. 40(1): 146–153

[4] Mackenzie, J.M., Cartwright, T., Beck, A. & Borrill, J. (2015) Probation staff experiences of managing suicidal and self-harming service users. *Probation Journal.* 62(2): 111-127.

[5] 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 (4): 582-587.

[6] 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(4), e021076.

Funding

- Sir Halley Stewart Trust. £2,600, 'Understanding Suicidal Behaviours by Offenders Serving Community Based Sentences' (2011) Co-I: Borrill
- Network Rail. £116,786, 'Why do people choose to take their lives on the railways in Great Britain? A research study' (Mar 2015 -Sept 2016) Co-Is: Mackenzie and Borrill

- Network Rail. £131,030, 'Suicide on the Railways in Great Britain: A Research Study' (Sept 2018-Feb 2020) Co-I: Mackenzie

4. Details of the impact (indicative maximum 750 words)

Impacts in the context of the probation setting

Dr Mackenzie has played a fundamental role in shaping best practice for suicide prevention in probation settings through her direct engagement with Amy Beck, Senior Forensic Psychologist and the Suicide Prevention Lead for the National Probation Service (NPS) at its London Division and, in more recent years, the NPS as a whole. As Beck attests, Mackenzie was 'the first academic researcher to work with the NPS to make **significant contributions to strategic probation suicide prevention planning and development'** and 'has generated research which the NPS have been able to reflect on and most importantly operationalise to facilitate better outcomes when supporting staff and service users in relation to suicide prevention work' [a-i]. For instance, Mackenzie's research **informed 'the content of NPS - London Suicide Prevention Plans'** [a-i], launched in 2017 and described by Her Majesty's Inspectorate of Probation as 'an impressive suicide prevention strategy' [a-ii, p.30].

The NPS' operational structure is split into Local Delivery Unit (LDU) clusters that work with local commissioners to develop arrangements to support service users. Beck initially focused her prevention work on the London LDU, and then the North West Division [a-i]. In line with WHO recommendations for 'training of non-specialized health workers in the assessment and management of suicidal behaviour', Beck, Mackenzie, and Borrill undertook: joint delivery of an in-depth and tailored suicide prevention training session to 100 NPS practitioners in 2014; a full-day event in 2017 (Sir Halley Stewart Trust funded, £5000), based in London but open to all NPS staff, encompassing best practice workshops for knowledge exchange amongst 150 staff members, training sessions, and a working meeting on NPS strategy [a-iii]; and training in 2019 for 40 probation staff managers to better support front-line staff who deal with suicide situations, in line with the recommendations of output [4].

To assess progress in suicide prevention, the NPS works with the Self-Inflicted Death (SID) figures provided by the Ministry of Justice (MoJ). Though these SID figures record deaths through drug over dose as well as suicide [a-iv], the NPS uses this data as a guide for suicide data, taking into account other contextual knowledge such as a known rise in usage of dangerous drugs. The NPS consider their suicide prevention strategy to be working as **in the London and North West regions – where the staff interventions regarding suicide prevention were first rolled out – there has been a significant reduction in the self-inflicted death rate** whilst in the other regions SIDs have risen in line with suicides in the general population [a-v]. London LDU saw a drop from 8 SIDs in 2017/18 to 1 SID in 2018/19; NW LDU saw a drop from 15 SIDs in 2017/18 to 5 in 2018/19.

The gains in these LDUs indicate a trend that should occur at the national scale as the suicide prevention strategies are rolled out across all regions. Mackenzie's qualitative research data – as featured in outputs [3] and [4], and a larger base of interviews with service users and probation officers as featured in her PhD thesis and supplied to Beck – have been of particular importance to developing these interventions for roll out on a national scale [a-i]. Beck confirms that this research into the 'service user voice' [a-i] has led to:

- '**[T]he development of a national suicide prevention plan across the NPS**' [a-i, a-vi, a-vii], launched in 2019 and 'quality assured by the MoJ' [a-viii].
- '[T]he **review and update of the national probation 2 day training package** on suicide prevention'; which now includes information about specific stages of the probation process at which service users are at an increased risk of suicide (e.g. the beginning and end of a sentence), potential triggers to suicide within probation (e.g. strongly worded warning letters), and prevention/support specific to probation settings (practical staff actions) [a-i].
- '**[T]he first probation practitioner guide developed for staff** in probation and […] a new revised updated guide which is in development'; this guide is now provided to all of the NPS' 5000+ probation staff and Beck states that this has 'led to an increase in probation staff knowledge and skills in relation to suicide' [a-i].
- A recently launched **community safety plan** [a-ix] which 'includes direct service user quotes from Dr Mackenzie's research and have been specifically included as a way of hopefully encouraging other service users to engage in the safety planning process' [a-i].

Impacts in the context of the transport setting

The Network Rail funded research projects Dr Mackenzie and Dr Borrill undertook with Dr Marzano produced the above outputs [5] and [6], as well as two key reports – *Why do people take their lives on the railways: A Research study* (2016) [b-i] and *Suicide Interventions on the Railways in Great Britain: A Research Study* (2020) [b-ii]. These reports communicated their findings in an accessible and actionable manner, resulting in the impacts described below.

Inspiring a successful active bystander campaign on the railways

Each suicide on the railway network has great mental health consequences. As Network Rail report, railway suicides 'account for around 4-5% of all suicides in Great Britain' and the context of these deaths is such that a '[h]uge number of people can be affected' [b-iii, p.3]. Along with the direct loss of life, and loss to family and friends of the deceased, 'the emotional, human […] costs are disproportionately high' for the train drivers, passengers and station staff who witness such suicides [b-iii, p.3]. Further, the delay minutes attributed to suicide events (364,000 in 2015/6) create broader despondency within fellow commuters, with passengers feeling 'frustration' and 'even apathy' towards those who had died [b-iii, p.5].

The 'Small Talk Saves Lives' (STSL) campaign, launched in Nov 2017 to help reduce fatalities from suicide, was developed by the Samaritans in partnership with a Network Rail coordinated stakeholder group encompassing Train Operators, Trade Unions, Public Health England, and the Department for Transport. The STSL campaign empowers the public to act to prevent suicide on the railways and the Senior Campaign Manager at Network Rail confirms [b-iv] that **the 'Small Talk Saves Lives' campaign's central concept was based on the following recommendation from the researchers' 2016 report**: 'A bystander awareness campaign is likely to be needed if members of the general public are to play a role in identifying individuals in distress and intervening in safe and effective ways', and such a campaign is 'worth pursuing given that fellow commuters are more likely to be on a platform in the moments preceding a suicide attempt than any member of staff, police or lay volunteer' [b-i, p.49].

STSL aimed to raise awareness of the vital role commuters can play in suicide prevention and to boost their confidence to do so 'through role modelling – playing back success' [b-iii, p.7-8]. The two approaches came together in a multifaceted media awareness campaign through which the role-modelling was amplified, as was also recommended in the 2016 report [b-i, p.47]. The campaign targeted national and regional print broadcast media, online media outlets, social media, and the channels of the stakeholder group, and was extremely successful, with social media impressions achieving a cumulative reach of 33.8 million; 3.9 million views of the role-modelling videos; and 42% of train passengers having seen the campaign, with two-thirds seeing it 3+ times, thus reinforcing the message [b-iii, p.26-7].

The significance of this reach is that the campaign has been **effective in encouraging rail commuters to approach persons in apparent distress and to proactively prevent potential deaths by suicide** [b-iii, p.27]. A survey of 5000 commuters found that, on the basis of the STSL campaign, 74% were 'likely to approach someone in distress'; 50% claimed 'it had increased / reinforced their intent to act if they were to notice someone in distress'; and 64% now 'feel confident about what to say to a person in distress' [b-iii, p.27-28]. Most significantly, approximately 33% of those surveyed had already approached someone in distress, claiming they were 'encouraged by Small Talk Saves Lives' [b-iii, p.26]. Data obtained by the Samaritans showed that there were '163 interventions by members of the public between January and September' 2018 – 'a 20% increase compared with 2017' – indicating that the wide reach of the STSL campaign, which launched in Nov 2017, had significantly contributed to this change in commuter behaviour in this area [b-v].

Due to the success of the campaign in 'chang[ing] people's behaviour, increasing their intent to take action, as well as increasing their ability to recognise that someone needs help, and [their] knowledge of how to intervene safely' [b-vii, p. 41], STSL has been incorporated into the UK government's National Suicide Prevention Strategy, the first cross-governmental initiative in this area, and is cited as **a best practice example of how the government can meet their commitment 'to work with partners to develop effective mental health crisis care and suicide prevention across the rail network'** [a-viii, p.34]. As the WHO state, such a national strategy emphasises 'suicide as a major public health problem and [challenges] the taboo in many

societies to openly discuss it'; Mackenzie and Borrill's research has thus contributed to this development in the UK.

Reducing suicide incidents on the London Underground

In 2017, Transport for London (TfL) created a Suicide Prevention Programme to address this issue on the London Underground (LU) network and worked with Mackenzie and colleagues 'to ensure [their] strategy reflects current best practice and the latest academic research' [b-vii]. The Suicide Prevention Lead at LU highlights the following key outcomes of this strategy, which was informed by the research that would be published in the 2020 report [b-ii]:

- TfL has seen '**an unprecedented drop in suicide on the London Underground network of a third in two years;** from a peak of 66 in FY [Fiscal Year] 2017/18 to 45 in 2019/20. This represents the first two-year consecutive drop for almost twenty years, and one of the lowest levels of completed suicide on our network in recent times' [b-vii].
- In this connection, '**staff-led interventions have almost doubled**, with around ten interventions made every week', and 700 staff members having been decorated with "LifeSaver Awards", 'using a criteria based on the best practice intervention suggested by [the] research', indicating the overall extent of staff interventions [b-vii].

The Suicide Prevention Lead explains that a key element of this strategy regards the messaging issued by LU to 'explain to customers when an incident involving a customer being struck by a train had occurred. Your research suggested this messaging could inadvertently be encouraging suicide attempts […] Following this **we changed our messaging** to "Casualty on the track", a decision that took into account your suggestions' [b-vii]. This re-wording would make it clear that the train network is not actually an effective way to carry out suicide, but more often results in serious injury, subduing their motivation to try.

Another aspect that has fed into the reduction of suicides on the LU relates to how their CCTV review system could be better used to identify behaviours that indicate the potential of suicide, following Mackenzie's study as featured in [b-ii] and output [5]. More broadly, this 'research of what behaviours people would likely exhibit' has led LU to '**buil[d] a framework to assess incidents based on different types of behaviour and use that to identify ways we can improve our response'**, giving the team 'a clearer perspective on the long-term trends on the network' and allowing them to adapt in accordance with any changes in the nature of suicide attempts on LU, thus ensuring their strategy's continued efficacy [b-vii].

Further, and referring to both of the reports [b-i & b-ii], the Suicide Prevention Lead states that: 'One of the key findings of the research was that pro-active staff-led intervention is one of the best means of preventing suicide on an accessible railway system. […] As a result, we rolled out a 2-hour suicide prevention training course for station staff, using the research on how suicidal people were likely to behave and react to staff-led intervention. We've now trained over 4,200 people across TfL, and 59% of our station staff have received training' [b-vii]. This '**training, guided by the research done, has proved extremely effective in saving lives** and allowing our colleagues to effectively, and safely, intervene' [b-vii].

5. Sources to corroborate the impact (indicative maximum of 10 references)

[a] (i) Testimony: Amy Beck, NPS (ii) HMIP Quality & Impact Inspection 2018 [link] (iii) Mackenzie, J. "Saving Lives: New Approaches to Suicide and Self Harm Prevention in Probation Practice FINAL REPORT" (2018) (iv) Phillips, J., et al (2018) Suicide and community justice. *Health & justice*, 6(1). (v) Spreadsheet: Deaths of Offenders in the Community Statistics. (vi) Mackenzie, Beck, Cook, presentation on NPS Suicide Action Plan [link] (vii) NPS Suicide Prevention Strategy – Action Plan (2019 – 2022) (viii) HM Gov. *Cross-government suicide prevention workplan*. 2019 [link] (ix) NPS. *Safety Plan: A well-being and community support resource.*

[b] (i) Marzano, Mackenzie, et al. (2016) *Why do people take their lives on the railways: A Research study* (ii) Marzano, Mackenzie, et al. (2020) *Suicide Interventions on the Railways in Great Britain: A Research Study* (iii) Network Rail STSL Evaluation Report [link] (iv) Testimony: Senior Campaign Manager, Network Rail (v) Samaritans press release [link] (vi) HM Government 'Preventing suicide in England: Fourth progress report' [link] (vii) Testimony: Suicide Prevention Lead, London Underground