**Supplementary materials for “Factors influencing the decision to attempt suicide by rail”**

**1. ONLINE SURVEY**

***Content Analysis of Survey Responses: A multi-stage approach***

The online survey aimed to explore respondents’ suicidal thoughts and attempts (please see Appendix 1 for a full copy of the online survey). Firstly, by asking if they had experienced suicidal thoughts and if so whether these thoughts involved a particular method or methods, and then to describe in an open text format what these were. A second open text question asked them to expand on why they chose these methods by asking what influenced their decision to use the method(s). Next respondents were asked if their suicidal thoughts involved a particular location, whether this was a private or public place, and if a public place whether it was a train/tube station or railway, public building; public road or bridge; park or country side; or other (with an option to describe what was meant by ‘other’). An open-ended question followed asking why this particular location or locations was chosen, and then what participants thought could be done to prevent suicide a this/these or similar locations. A second block of questions followed the same format, but in relation to suicide attempts. At the end of the survey, participants answered questions (also open-ended) about key socio-demographic characteristics, and had the opportunity to record any further comments or suggestion in an open text box.

Analysis of these data was beset by two interrelated problems: the first is that respondents gave multiple answers within one question, so for example the method question would typically result in a list of several. Secondly, there was a good deal of overlap in content among the question responses (for example respondents would answer question by referring to and/or reiterating what they had written in previous questions).

Processes had to be developed in order to deal with the complexity of the resultant data. In particular, we followed a multi-stepped approach:

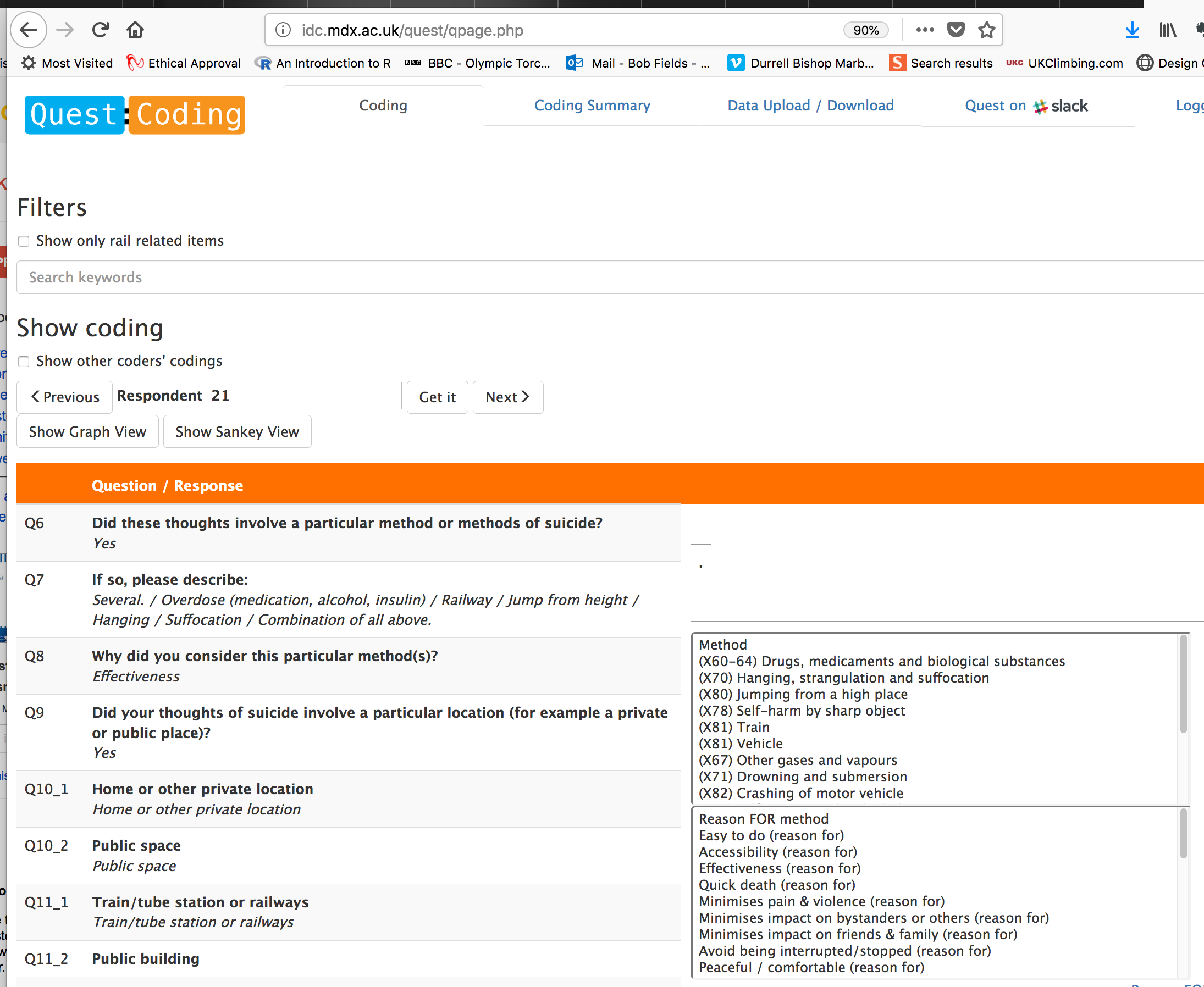
**1. Text analysis**: The first step was to do a text analysis of each of the responses using SPSS Text Analytics for Surveys tool, producing a list of concepts which were then built up and restructured to create a suicide specific thesaurus. In turn, this provided a starting point for a set of codes.

Another useful starting point that shaped the codes for suicide methods was the International Classification of Diseases, which provides a classification of intentional self-harm (X60-X84). The codes for suicide method were closely based on ICD-10 (<http://apps.who.int/classifications/icd10/browse/2016/en>).

In addition, an iteration of thematic coding on the reasons for choosing method(s) had been done by two researchers working on the interviews, which contributed to the collection of concepts under themes, renaming and combining the text analysis concepts further. This finally produced an initial list of codes with associated words and phrases that coders in the second phase could expect to find in the responses as evidence for assigning a particular code to a response.

**Limitations of text analysis:** The text analysis was limited on several levels. Firstly, it was not possible to develop the dictionary beyond a very basic level of a collection of words and phrases. Secondly, text analysis, for all its power, cannot provide the necessary context to the words categorised under specific themes. It was therefore necessary to have another layer in the analysis of the data and treat the text analysis as a source for initial codes and as partial definition of the codes.

**2. Coding of complete responses with a web-based coding tool:** In order to present the respondents’ entire response and support the coding process, an online tool was created, as shown in Figure 1. The collection of data could be filtered by keywords and other criteria (Data Filtering and Selection area), and the content of a single response viewed (Questions and Responses area). The coder was thus able to view the questions and the answers given by a respondent, and make decisions about how the response should be coded. Possible codes were available as menu selections (Coding Choices area), so that the coder could assign codes in the context of the respondent’s entire response (including the comments section at the end of the survey). This was necessary because respondents often referred to what they had written in previous questions and in each question multiple answer were frequently given. Next to each response, the relevant codes were repeated, as shown below.



Questions and Responses

Coding Choices

Data Filtering and Selection

Figure 1 Layout of online coding tool, with three key areas highlighted

***Coding protocol.*** A coding protocol was developed, in relation to 6 main code categories (see Figure 3), applied to suicidal thoughts first and then suicide attempts (where reported).

Guided by the main line of questions, coders would identify and code

* A method (1)
* Reason(s) for or reasons against this method, if evident (2).
* The location (3)
* Reason(s) for that location (4)
* Finally, possible prevention measures (5).

Together, this identification of codes for Method, Reasons, Locations, Reasons and Preventions constituted a “coding thread” (a “thread” through the respondent’s story). Coding of a response was exhausted when all methods had been identified. Evidence for these codes could be found in any part of the response, although there was a separate set of codes for attempts and coders were asked to separate out what was clearly associated with an attempt from what were just thoughts, if possible. A response could contain several “threads” if the respondent has described contemplating or attempting to use several different methods.

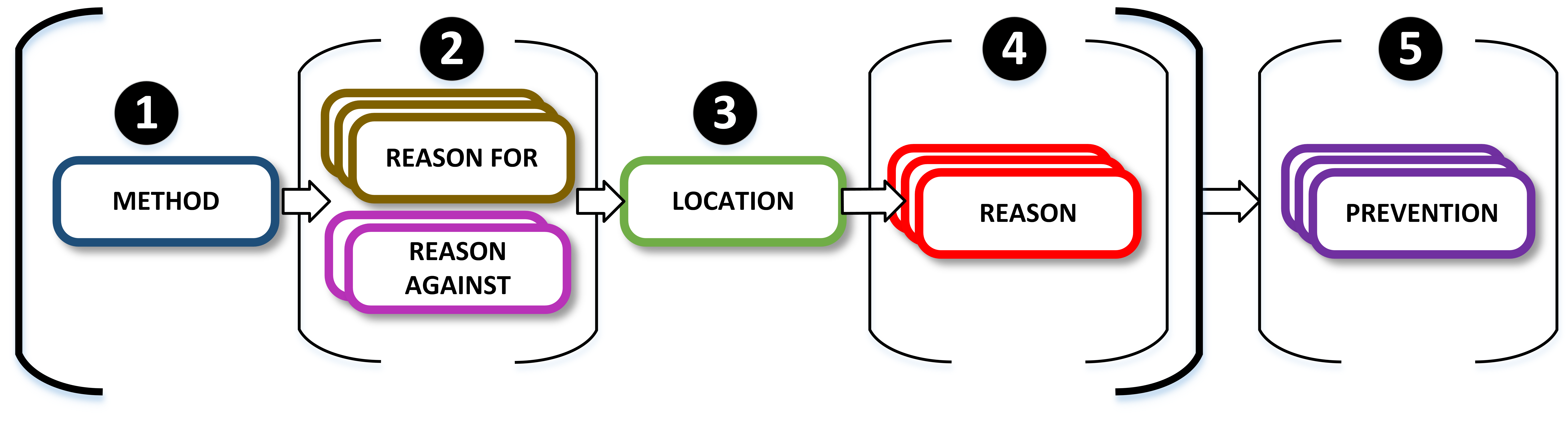


Figure 2 Coding Protocol

Table 1 illustrates the process with the content of one response, along with two of the threads identified by coders.

After a response has been coded, each of the threads generated could be displayed in both textual and graphical form for review. If more than one coder had coded the same response, this visualization could help to identify disagreements and potential divergences in understanding, either of the data or of the coding scheme, that led to the disagreement. Figure 3 shows the graphical visualization of the threads generated by several coders.

Table 1 Example Response and Coding Threads

|  |  |
| --- | --- |
| Response number 21 | |
| Q6. Did these thoughts involve a particular method or methods of suicide? | Yes |
| Q7. If so, please describe: | Several. / Overdose (medication, alcohol, insulin) / Railway / Jump from height / Hanging / Suffocation / Combination of all above. |
| Q8. Why did you consider this particular method(s)? | Effectiveness |
| Q9. Did your thoughts of suicide involve a particular location (for example a private or public place)? | Yes |
| Q10\_1. Home or other private location | Yes |
| Q10\_2. Public space | Yes |
| Q11\_1. Train/tube station or railways | Yes |
| Q11\_2. Public building |  |
| Q11\_3. Public road or bridge | Yes |
| Q11\_4. Park or countryside | Yes |
| Q11\_5. Other | Yes |
| Q11\_5. Other-TEXT | Mountains |
| Q12. Why did you consider this particular location or locations? | Effectiveness / Isolation / |
| Q13. What do you think could be done to help prevent suicide at this or similar locations? | Barriers, cctv, support contacts |
| Q30. Additional comments | Multiple attempts aged 9, 14, 17 / Thoughts and plans permanent since then. / Only thing that stops me is knowing that no method certain to work and I will not fail again |

|  |  |
| --- | --- |
| Thread A |  |
| Method: | (X81) Train |
| Reasons for: | Effectiveness (reason for) |
| Location: | Train/tube station or railways |
| Reason for location: | Effectiveness (reason for) | Privacy (reason for) |
| Prevention: | barriers, fences, railings; CCTV; people to talk to |

|  |  |
| --- | --- |
| Thread B |  |
| Method: | (X80) Jumping from a high place |
| Reasons for: | Effectiveness (reason for) |
| Location: | Public road or bridge |
| Reason for location: | Effectiveness (reason for) |
| Prevention: | signs and posters; barriers, fences, railings; CCTV |

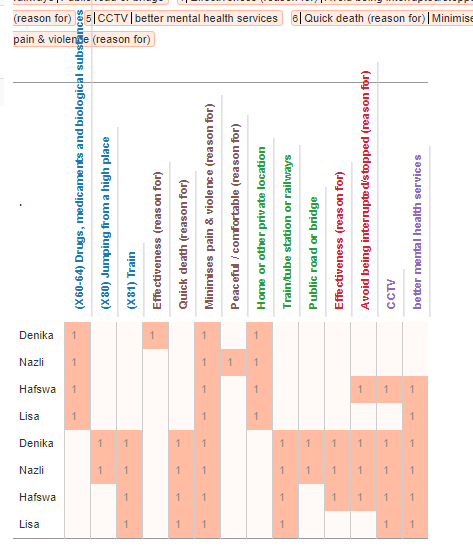


Figure 3. Graphic display of all coders' thread

Development of the codes. The codes were developed by refining the definitions where subtleties were encountered in the full text. Secondly, any response that did not fit the coding scheme was given a new code which was then available as an option for further coding. It is important to note that reasons for location were given as a repeat of the method reasons but with expectation that each code would be treated as referring to the qualities of the location.

***Coding practice.*** Three coders applied this coding framework to an initial common set of responses. Discussions around the coded responses helped refined the codes based on their applicability, and develop consensus on their interpretation and applicability. Once confidence in the codes and in a common understanding of their applicability had been established amongst the coders, each coded a section of those responses that contained rail related responses. The rail related responses were identified through key words and phrases from the Methods dictionary.

***Wiki development.*** A shared online space was created to help build up a commonly understood and robust set of definitions for the codes. This included an operational definition of all codes used in the analysis, which are available at <http://idc.mdx.ac.uk/quest/codingwiki>.

***Inter-rater reliability.*** In order to assess the robustness of the coding scheme and coding practices, and to diagnose any problems or disagreements that arose during coding, around 10% of the responses were coded by all three coders. Inter-rater reliability was assessed by computing Kraemer’s extension of the kappa statistic1. This way of calculating kappa is applicable in situations where each item may be assigned multiple codes by multiple coders. Across all coding categories, the calculated value of kappa was 0.774, a level typically judged to be a ‘substantial’ or ‘excellent’ level of agreement.

In an attempt to reveal where problems and coding disagreements may be occurring, the kappa statistic was computed separately for each code category, as shown in Table 2. A high level of agreement can be seen across most of the categories, with the only coding in the ‘Reasons AGAINST method’ (a rather small category) and ‘Reasons for location’ categories showing a level of agreement that is ‘fair to good’:

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Table 2: Inter-rater reliability across coding categories showing Kraemer’s kappa and the number of responses coded in each category

|  |  |  |
| --- | --- | --- |
| Coding category | Kappa | N |
| Method | 0.904 | 120 |
| Reason FOR method | 0.774 | 118 |
| Reason AGAINST | 0.514 | 22 |
| Location | 0.787 | 108 |
| Reason for location | 0.677 | 102 |
| Prevention | 0.723 | 98 |

**2. INTERVIEW STUDY**

Table 3 below shows main themes and subthemes for each participant group.

Table 3. Main interview themes and subthemes (for each participant group)

|  |  |
| --- | --- |
| Group 1 - Why they chose a railway location and what happened | |
| Frequency | Easy access and familiar with location/trains |
| Familiar |
| Easy access |
| Announcements & noise | Where perceptions of lethality come from |
| Media and Internet searches |
| Final | Lethal and quick |
| Lethality |
| Speed; quick |
| Adrenaline and extreme behaviour | Feelings associated with method and outcome |
| Freight train because of destruction |
| Desire for physical destruction |
| Pain - quick |
| Anonymity | Avoiding intervention |
| Quiet |
| CCTV influenced behaviour |
| Specific time chosen |
| Away from public less chance intervention |
| Impact vs less impact on others | Concern about impact on others |
| Impact on railway staff |
| Impact of the station | Station environment |
| Impulsive or planned | Decision-making process and intent |
| Thoughts of jumping |
| Still uncertain just before jumping |
| Relief after decision |
| Difference in methods | Difference in methods |
| Behaviour (station hopping, positioning, timing, where, when, hidden etc) | Reported behaviour (see also CCTV) |
| Alcohol involved |  |

|  |  |
| --- | --- |
| GROUP 2 - Why thoughts of railway? | |
| Speed of trains | Quick and lethal |
| High lethality |
| Pain is quick |
| Final – no going back |
| Anger violence |
| Signs make it seem more attractive | Perception of lethality – where do they come from? |
| Media online influence |
| Heard of railway as a method |
| Not in control–puts control in someone else’s hands | Easy access/to do and familiar location |
| Familiarity |
| Easy access or easy to do |
| Intrusive thoughts/ideation | Decision-making process and intent |
| Impulsive |
| Location away from home |
| Did not want family to find them |
| Did not want to be seen or intervention | Minimise chances of intervention or being seen |
| No one present |
| Did not think of others | Did not think about impact on others |
| Lonely places | Station/railway atmosphere |
| Run down |
| Reasons for rejecting railways | |
| Not lethal | Uncertain about lethality |
| Lack of fast trains |
| High chance of intervention or people present | High chance of intervention |
| CCTV |
| Concern for others | Concern about impact on others |
| Difficult to access | Difficult to access |
| Had been drinking so couldn’t get there |
| Not comfortable with location | Not comfortable with the method/location |
| Method matches feelings |
| Messy |
| Didn’t want to be associated with train suicide |

|  |  |
| --- | --- |
| GROUP 3 – Why thoughts of this location/method | |
| Speed; quick | Quick and lethal vs painful |
| Lethal |
| Final |
| Self-directed violence |
| Too painful |
| Familiarity | Familiar location |
| Quiet/secluded | Intervention unlikely |
| Impulsivity, gambling, intrusive thoughts | Decision-making process and intent |
| How to prevent railway suicide and reasons for rejecting a rail method | |
| Worried about impact on staff/others | Impact on others (including staff) |
| Tackling perception of being lethal or peaceful | Tackling perceptions of lethality |
| Announcements |
| Staff training | Visibility of support (people) at station/tracks, trained staff |
| Staff nicer |
| Safe location |
| Use of technology | Visible support (information) at stations/tracks |
| Posters |
| Online support or support not involving speaking aloud (e.g. text/email) |
| Access | Changing the environment/design to restrict access |

**3. ETHICS**

All research materials and procedures were reviewed and approved by the Psychology Department Research Ethics Committee at Middlesex University (ST019-2015).

Informed consent was sought from survey and interview participants. In relation to the latter, the participant information sheet also clarified that full confidentiality could not be maintained in relation to disclosures suggesting a risk of serious harm. A personalised safety plan was drawn up before the start of each interview, and standard safeguarding and distress protocols followed.

All data were analysed, stored and disseminated in accordance with the Data Protection Act 1988. Interview recordings and detailed interview notes were stored safely at the University of Westminster (in a locked cupboard, in an office which was always locked when not in use), and securely destroyed once all information needed for the research was coded/transcribed. Signed consent forms were also stored safely at the University of Westminster, but separately from other written notes and forms. All files containing participant identifiable data were encrypted and held on password protected computer/laptops, on university managed IT systems (with up-to-date firewall, anti-virus software and backup services), rather than on local hard drives. Nobody outside the research team had access to the full transcripts or original notes/recordings, except for participants who elected to read and comment on their own transcript. Where recordings we shared amongst the team for the purposes of transcribing, this was done via an encrypted USB/memory stick or encrypted email, using as a reference an anonymised participant code (e.g., interview 1, group 1), rather than participant identifiable information (e.g., the interviewee’s name).

Survey data were also fully anonymised, with participants’ IP addresses, names and contact details (where provided) stored securely on university managed IT systems, and safely deleted once no longer needed for the recruitment of interview participants. Data provided by the British Transport Police (BTP) for the purposes of identifying eligible interview participants were also anonymous, and used in compliance with a Privacy Impact Assessment (PIA) led by the BTP.

**References**

1. Kraemer HC. Extension of the kappa coefficient. *Biometrics*. 1980. doi:10.2307/2529972.

**APPENDIX 1: ONLINE SURVEY**

**QUEST – Qualitative Understanding of Experiencing Suicidal Thoughts**

***Below are a series of questions about your experiences of suicidal thoughts. When answering these questions, please focus on your own personal thoughts and experiences, not what might be true in general, or for other people. There are no right or wrong answers; we are interested in what you think and what your own experience has been.***

**1. Have you ever had thoughts of ending your life?**

Yes (automatically go to Q2)

No (automatically go to Q5)

**2. Did these thoughts involve a specific method or methods of suicide?**

Yes (automatically go to next Q)

No (automatically go to Q3)

**If so, please describe:**

**2b. Why did you consider this particular method(s)?**

**3. Did your thoughts of suicide involve a particular location?**

Yes (automatically go to next Q)

No (automatically go to Q5)

If so, please tick as many as apply:

* Home or other private location
* Public place (automatically opens options below)

Please tick as many as apply:

* Train/tube station or railways
* Public building
* Public road or bridge
* Park or countryside
* Other: …………….

**3b. Why did you consider this particular location or locations?**

**4. What do you think could be done to help prevent suicide at this or similar locations?**

***The following questions ask about your experiences, if any, of attempting suicide.***

**5. Have you ever attempted suicide?**

Yes (aut. proceed below)

No (aut. go to socio-demographic Qs )

**6. If yes, what method or methods did this involve?**

**7. What do you think influenced your decision to use this particular method or methods?**

**8. Did your suicide attempt or attempts take place (please select as many as apply):**

* At home or in other private location
* In a public place (aut. opens options below)

Please tick as many as apply

* Train/tube station or railways
* Public building
* Public road or bridge
* Park or countryside
* Other: …

**9. What do you think influenced your decision to attempt suicide at this particular location or locations?**

**10. What, in your opinion, could help prevent suicide at this or similar locations?**

***Finally, to help us understand whether and how people’s experiences of suicidal thoughts vary across age, gender and other characteristics, we would be grateful if you could describe your:***

* Age:
* Gender:
* Sexual orientation:
* Ethnicity:
* Nationality:
* Religion (please state if not religious/atheist/agnostic):

***ADDITIONAL COMMENTS***

***Please use this space for any additional comments***

**APPENDIX 2: INTERVIEW GUIDE FOR PARTICIPANTS IN GROUP 1**

**(Individuals who made suicide attempts on the railways)**

**(Key questions are numbered, with prompts in bullets below. Red and bold text reflect specific emphasis on railway-related methods of suicide)**

**[Preceded by Visual Analogue Scale to assess participant’s mood at the start of the interview]**

**FREE NARRATIVE**

**1. Can you tell me a bit about yourself…**

**Socio-demographic details:**

* Age
* Gender
* Any history of mental health problems; psychiatric treatment; hospitalisation
* Education; employment; family etc [interviewer to encourage free narrative, but use the Oxford Monitoring checklist to ensure that key information is covered]

**Have you attempted to harm yourself more than once? If yes:**

* How many times on the **railway?**
* How many times in **other settings?**

**Any previous self-harm without direct suicidal intent?**

* How many times
* Methods
* Severity

**2. Could you tell me, in your own way, about your (*most recent/most severe*) experience of attempting to end your life on the Railway?**

***If more than one attempt, ask participant to identify the*** ***most recent attempt on the railway, or the one they considered to have been most severe [this could be on the based on resulting injuries, lethality of method and/or degree of suicidality. The key factor here is participant’s own perception of ‘severity’]. Identify date. Choose which one they want to focus on first (others compared later) and ask why [i.e, if applicable, why was this considered to be their most ‘severe’ attempt?]***

**Prompt in relation to:**

* **Feelings**, mood, on the day
* **Recent /immediate** **triggers** e.g. Events, losses, changes in situation
* **Thoughts** about suicide on **that day** (including about **capacity)**
* Did anyone know how you were feeling?
* **How long** between thinking about suicide attempt and carrying it out?
* **What time** was it? Was it **dark?**
* Can you remember what **day of the week** is was?
* **Implementing** plans for suicide
* **Thoughts specifically about railway and about specific railway locations**; other locations considered
* **Images** – visual; voices; **images specific to railway**
* Were you under the influence of drugs and/or alcohol?
* **Steps taken towards location**; e.g.buy single ticket? Walk to the tracks?
* **Steps towards act**; e.g.. leave belongings behind?
* **What happened -** How did you survive this attempt?(Steppedback; changed mind; approached people; people nearby; received help).
* **Did anyone try to intervene**?
* **Thoughts about being saved**; Thoughts about dying
* How did you feel **after** your attempt? (**Relief?** Disappointment?)
* Were you hurt/injured?

**3. There may be many reasons why people try to take their own lives. What were the main reasons for your attempt?**

* **Motivation** on the day - **What did you want to happen** at this point? (Want to die; want a **way out**; feeling **ambivalent;** looking for **help; other?)**

**4.** **Can you explain why you attempted to end your life specifically on the railway rather than somewhere else?**

* Planned or impulsive/spur of the moment? No alternative?
* Associations, memories, familiarity
* Influence of **family history of suicide** (on rail or not)
* Other direct **exposure** to suicide e.g. friends, personal sources, influences, personal experience
* Close to home/away from home
* ‘Choice’ (or not) of **rural or urban location; station or open track**
* Thoughts about **railway methods** – Easy? Quick? Visible /hidden? Anonymous?
* Comparison of railways with **other methods**/settings
* **Positive expectations** of the railway attempt (e.g., likelihood of being saved; peace; quick death; problems solved; re-united with lost others; seeking forgiveness; help; recognition of suffering)
* **Negative expectations** of railway suicide (re: likelihood of death; pain/injury; disability)
* **Media information** about railway suicide /other methods - from TV/Radio, newspapers, social media, websites. (Were you aware of these? Do you feel this may have influenced your behaviour? If so, how? Etc.)
* **Internet searches or other research** about specific method and/or location
* Thoughts about **impact** **on other people** involved with the railway? (Passengers, drivers, staff, bystanders)
* Thoughts about impact on others (including family and friends) - did you think about them when considering/choosing the railway location?

**5. Thinking back to the days or weeks BEFORE you attempted to end your life on the railway, what was going on at that time? What were you doing? What was going on in your life?**

* **Previous feelings**, mood
* **Past events** – previous exposure to suicide (direct and/or indirect)**;** losses, changes in situation; financial issues; (un)employment; relationships etc (ask about relevant socio-demographic information at the time of the event – incl. living arrangements, social support; **contact with relevant services**)
* **Previous thoughts about suicide**; plans for suicide; previous attempts
* **Previous thoughts about railway**, other locations, views about railway suicides
* **Previous Images** – visual, voices; images **specific to railway**

**6.** (If applicable) **How does the recent attempt you have described compare with any previous attempts or previous thoughts?**

* Mood, motivation, thoughts
* Triggers
* Choice of location
* Lethality of method or location
* Outcome (e.g., steppedback; changed mind; people nearby; received help; approached people)
* Injuries

**7. Can you tell me what happened in the time after the attempt to harm yourself on the railway?**

* Current **mood state**; current health
* **Life changes**? Current life situation (if not discussed earlier in the interview)
* Images? Flashbacks?
* **Further thoughts** about harming yourself on the **railway**; in **other locations**?
* Sought help? Received help, support? Any interventions/Treatment?

**8. Is there anything that you think National Rail and other people could do to prevent suicide attempts on the railways?**

* **Could anything have prevented your attempt at that time?**
* Improvements to railways (re-design of railways, stations?)
* Barriers to attempts? Observation? Bystanders? Transport police?
* Interventions, support (e.g Samaritans posters, phones, volunteers, lighting)
* **What might make things worse?** (Impact of media reporting)

**SUICIDE INTENT SCALE**

**To make sure that we have covered all the important points I am now going to check through a list of standard questions about the suicide attempts. We will already have talked about many of these questions so they will just be ticked, but you might also remember new things.**

**SIS 1. Isolation. Was anyone near you when you tried to harm yourself?**

Where exactly were you standing? Did you choose a particular place? Why?

Could other people see you? What were they doing? Did they look at you?

Where was the nearest person to you? Who were they – railway staff, general public travelling, waiting, people working in the station area?

Did you approach anyone? Why? What happened?

Did anybody approach you? What happened?

Did you try to phone anybody? Who? What happened?

**0. Somebody Present**

**1. Somebody nearby or in contact**

**2. No-one nearby or in contact**

**SIS 2. Timing. At what moment did you attempt to harm yourself?**

Were you expecting someone to arrive soon who would see you?

Did you think that you had time to do it before someone saw you?

Did you wait until no-one would see you?

Was a train expected to arrive soon? Was a train arriving at that moment?

**0. Timed so intervention was probable**

**1. Timed so that intervention was not likely**

**2. Timed so that intervention is highly unlikely**

**SIS 3. Precautions against discovery and/or intervention. Did you do anything to prevent someone from finding or stopping you?**

Where were you? Were you somewhere where people would not expect to see you?

Should you have been somewhere else when you made your attempt? Would people be suspicious of your absence? Did you do anything to reduce these suspicions?

Did you choose a part of the railway line/ a station/ a particular platform etc where you could not be seen?

**0. No precautions at all**

**1. Passive precautions, (avoiding others but doing nothing to prevent intervention)**

**2. Active precautions e.g. being in an area where not visible, or at a time when no other people are in sight**

**SIS 4. Action taken to gain help after attempt (After you harmed yourself did you call someone to tell them what you just did?)**

Did you speak to anyone shortly before or shortly after the attempt? Did you contact someone or did they contact you? Did you phone, text or email anyone before or after the attempt? Who? Did you arrange for anyone to call you after your attempt?

**0. Notified potential helper regarding attempt**

**1. Contacted but did not specifically notify helper regarding attempt**

**2. Did not contact or notify helper**

**SIS 5. Final acts in anticipation of death (Did you do anything such as paying bills, saying goodbye, writing a will, once you had decided to harm yourself?** )

Did you make any financial arrangements in anticipation of death? Sort out arrangements for partner? Children? Life insurance? Give things away?

**0. No arrangements in anticipation of death**

**1. Thought about making, or made, some arrangements in anticipation of death**

**2. Definite plans made (changing will, giving gifts, etc)**

**SIS 6. Degree of Planning. Had you planned it for some time? Did you make preparations?**

(Consider the degree of deviation from normal routine required for the attempt)

On that occasion, when did you decide to attempt your life? How long had you been making these plans?

Did you look at the railway setting and/or look around the area? Did you buy a ticket in advance - for a particular train? Did you make special arrangements e.g. when able to travel alone, children at school? Did you check timetables? Did you look online for information about railway suicides, stations? Did you look for information on lethality/survival; previous suicides in this or similar settings?

**0. No preparation, no plan**

**1. Minimal or moderate preparation**

**2. Extensive preparation (detailed plan)**

**SIS 7. Suicide note.**

Did you write a note (or more) – to whom?

Did you think about writing one? Decided not to - why?

**0. Did not write, or think of writing, a note**

**1. Thought about writing note but did not do it**

**2. Presence of note, or written/torn up**

**SIS 8 Communication of intent before the act. During the past year, did you tell neighbours, friends, family members implicitly or explicitly that you intended to harm yourself?**

Did you tell anyone about your plans to kill yourself? Did you indicate your desire to end your life, without actually saying so? Did you ever say you were tired of it all, things would not go on much longer etc. or give hints? Did you talk to anyone about ending you life on the railways?

**0. No communication of intent**

**1. Ambiguous or implied communication**

**2. Explicit communication**

**SIS 9. Purpose of act. Can you tell me what you hoped would happen by harming your self?**

Did you think that other people would be better without you? Did you think it would change someone’s mind, or show someone how much you cared about them? Just wanted to get away from it all?

Thinking mainly of escaping from your problems? Did you think life after death would be more pleasant than this life?

**0. Mainly to manipulate (sic) others or change environment**

**1. Temporary rest (+ other aspects)**

**2. Mainly to remove self from environment; death**

**SIS 10. Expectations regarding the fatality of the act (What do you think were the chances that you would die as a result of you act?)**

Were you surprised to be alive after your attempt on the railway? Did you think the attempt would kill you?

If not, what did you think your chance of surviving was? Did you consider what would happen if you survived? Did you have alternative plans in case the attempt failed? Did you think about what would be happening on the day after your attempt – did you think about your funeral or your body?

Did you think about being injured, paralysed?

**0. Thought death was unlikely, or had not thought about it**

**1. Thought that death was possible but not probable**

**2. Thought that death was probable or certain**

**SIS 11. Lethality of Methods**

Did you think about other methods that would be more dangerous or less dangerous than harming yourself on the railway?

What other methods did you consider? Why did you not use those methods? What specific settings related to railways did you consider? (Railway line, station, line crossing, railway bridge, etc.)? Which of these did you think would be more dangerous / less dangerous? Why did you choose this method? Did you select a specific train/bridge/place? How soon did you think you would die?

**0. Participant did less than they thought would be lethal (or didn’t think)**

**1. Not sure whether lethal**

**2. Act was what they thought as lethal or was more lethal**

**SIS 12. Seriousness of attempt. Did you consider your act to be a serious attempt to take your life?**

How sure were you that you wanted to end your life? How sure were you that you wanted to end your life by dying on the railway rather than anywhere else? How sure were you that attempting this on the railways would end your life?

**0. Did not consider the act to be serious attempt to end his/her life**

**1. Uncertain whether the act was a serious attempt to end his/her life**

**2. Considered the act a serious attempt to end his/her life**

**SIS 13. Ambivalence towards living. At the time, what were your feelings towards life and death? Did you want to live more that you wanted to die?**

Did you not care whether you lived or died? Were you hoping to live through the attempt? Were you hoping that the train would stop? Did you hesitate at any time in your attempt? Is there anything in your life that would have made staying alive worthwhile?

**0. Did not want to die**

**1. Did not care whether lived or died**

**2. Wanted to die**

**SIS 14. Perception of reversibility.**

What did you think that the chances were that you would be OK if given medical help? Did you think that doctors would be able to save you? What did you think was the worst that could happen if you were taken to hospital immediately after your attempt? Did you think railway staff, first aid, paramedics etc would be able to save you? What did you think were the chances that you would be seriously injured or paralysed?

**0. Thought that death would be unlikely if they received medical help**

**1. Uncertain if they would be Ok if given medical help**

**2. Was certain they would die even if medical help was received**

**SIS 15. Degree of premeditation. How long before you harmed yourself did you decide to do it?**

Had you been thinking for a while? Or was it impulsive? How long did you think seriously about it before you made the attempt- week? Day? A few hours? Moments?

**0. No prior thought – impulsive**

**1. Act contemplated for 3hrs or less before the attempt**

**2. Contemplated for more than 3 hrs before attempt**

**DEBRIEF QUESTIONS**

* **Is there anything you would like to add or ask me?**
* **How do you feel now?**

* **VISUAL ANALOGUE SCALE to assess participants’ mood at the end of the interview**
* **Finally I would just like to ask you about how it felt to take part in this interview.**

1. **How did you find taking part in this study?**

b) What was the best thing about it?

c) What was the worst thing about it?

d) Taking part in this study was… [On a separate sheet, so participants may fill in themselves]

Very Easy Very Difficult

1 2 3 4 5

Very Upsetting Not at all Upsetting

1 2 3 4 5

Very Enjoyable Not at all enjoyable

1 2 3 4 5

Very Beneficial Not at all beneficial

1 2 3 4 5

* **Overall, are you pleased that you took part in this study? Yes / No**

**Why?**

**Thank You**

**APPENDIX 3: INTERVIEW GUIDE FOR PARTICIPANTS IN GROUP 2**

**(Individuals who made near-lethal suicide attempts in other settings after considering and/or rejecting railway suicide)**

[Key questions are numbered, with prompts in bullets below. Red and bold text reflect specific emphasis on railway-related methods of suicide]

[Preceded by Visual Analogue scale to assess participant’s mood at the start of the interview]

**1. Can you tell me a bit about yourself…**

**Check demographic details:**

* Age
* Gender
* Any history of mental health problems; psychiatric treatment; hospitalisation
* Education; employment; family etc [interviewer to encourage free narrative, but use the Oxford Monitoring checklist to ensure that key information is covered]

**History of suicide attempts and previous self-harm without direct suicidal intent**

* How many times
* Methods (ask specifically about railway related methods)
* Severity

**2. Could you tell me, in your own way, about your (*most recent/most severe*) experience of attempting to end your life?**

***If more than one attempt, ask participant to identify the*** ***most recent attempt , or the most severe. Identify date. Choose which one they want to focus on first (others compared later)***

Prompt in relation to:

* **Feelings**, mood, on the day
* **Recent/immediate** **triggers** e.g. Events, losses, changes in situation, anticipated negative events
* **Thoughts about location chosen;** thoughts rejecting other locations, including railway
* **Images** – visual; voices; **images specific to chosen location;** any railway images?
* **Anticipation**: What did they expect from the attempt: death; pain/injury; help; recognition of suffering?
* **Motivation** on the day - What did they want to happen at this point (dying; wanting a way out; wanting help; ambivalence)?
* **Steps taken towards location;** e.g.transport? Specific time?
* **Steps towards act**: Leave belongings at home? Other planning and preparations.
* **What happened -** How did you survive this attempt?
* **Did anyone intervene**?
* **Thoughts about being saved**; Thoughts about dying
* How did you feel **after** your attempt? (**Relief?** Disappointment?
* Hurt? Injured?

**3. Can you tell me why you attempted to harm yourself in this particular place, rather than somewhere else, and in this particular way?**

Prompts:

* **Choice** of **setting** (including associations, memories, familiarity, vs. reasons for anonymity, avoiding recognition, etc.)
* **Other settings** considered/rejected?
* Comparison of chosen setting with **other methods**/**locations**  – Easy? Quick? Visible /hidden? Pain? **Comparison with thoughts about railway** (more or less dangerous? Quicker? Etc.)
* **Direct information** about suicide methods – personal sources, influences, personal experience
* **Media information** about suicide methods - from TV/Radio, newspapers, social media, websites. (How did these influence your behaviour, if at all? Did you do any research/internet searches in relation to the method(s) you choose and/or considered?)
* Thoughts about **impact** of chosen suicide method on others (finding someone dead; seeing someone fall, etc.). Compare with impact of railway methods (passengers, drivers, staff, bystanders)
* Thoughts about other people, including family and friends – and perceived influence on choice of method/location

**4.** (if appropriate) **How does the recent attempt you have described compare with any previous attempts, or thoughts?** Prompt specifically in relation to previous thoughts of attempting suicide on the railways - and why these were not then acted upon

* Mood, Motivation, Thoughts
* Triggers
* Choice of Location
* Lethality of method or location
* Outcome
* Help sought/received

**5. Can you tell me about the thoughts and feelings you have had during the time since your attempt to end your life**

* Any further thoughts about harming yourself? Images? Flashbacks?
* Thoughts about suicide in other locations?
* Avoidance of specific settings?
* Received any help, support, interventions, treatment?
* What, if anything, helped?
* What, if anything, made things worse?

**6. Is there anything that people could do to prevent suicide attempts such as yours?**

* What might have helped prevent your attempt?
* What might make things worse?
* What do you think could be done to prevent suicide on the railways/to help people who have thoughts of harming themselves on the rails? (barriers, posters, interventions, lighting, etc.)
* What might make things worse?

**SUICIDE INTENT SCALE**

**To make sure that we have covered all the important points I am now going to go through a list of standard questions about the attempt. Some of the questions may repeat what you have already talked about, but you might also remember new things.**

**SIS 1: (Isolation). Was anyone near you when you tried to harm yourself?**

Where was the nearest person to you? Did you approach anyone? Why? What happened? Did you try to phone anybody; Who? What happened?

0. Somebody Present

1. Somebody nearby or in contact

2. No-one nearby or in contact

**SIS 2. (Timing). At what moment did you attempt to harm yourself?**

Were you expecting someone to arrive soon who would see you? Did you think that you had time to do it before someone saw you? Did you wait until no-one would see you?

0. Timed so intervention was probable

1. Timed so that intervention was not likely

2. Timed so that intervention is highly unlikely

**SIS 3. (Precautions against discovery and/or intervention).** Did you do anything to prevent someone from finding or stopping you?

Where were you? Were you somewhere where people would not expect to see you? Should you have been somewhere else when you made your attempt? Would people be suspicious of your absence? Did you do anything to reduce these suspicions?

0. No precautions at all

1. Passive precautions, (avoiding others but doing nothing to prevent intervention)

2. Active precautions e.g. being in an area where not visible, or at a time when no other people are in sight

**SIS 4. (Action taken to gain help after attempt). After you harmed yourself did you call someone to tell them what you just did?**

Did you speak to anyone shortly before or shortly after the attempt? Did you contact someone or did they contact you? Did you phone, text or email anyone before or after the attempt? Who? Did you arrange for anyone to call you after your attempt?

0. Notified potential helper regarding attempt

1. Contacted but did not specifically notify helper regarding attempt

2. Did not contact or notify helper

**SIS 5. (Final acts in anticipation of death). Did you do anything such as paying bills, saying goodbye, writing a will, once you had decided to harm yourself?**

Did you make any financial arrangements in anticipation of death? Sort our arrangements for partner? Children? Life insurance? Give things away?

0. No arrangements in anticipation of death

1. Thought about making, or made, some arrangements in anticipation of death

2. Definite plans made (changing will, giving gifts, etc)

**SIS 6. (Degree of Planning).**

Had you planned it for some time?Did you make preparations?(Consider the degree of deviation from normal routine required for the attempt)? How long had you been making these plans?Did you make special arrangements e.g. when able to travel alone, children at school, etc? Did you look for information on lethality, survival; previous suicides in this or similar settings?

0. No preparation, no plan

1. Minimal or moderate preparation

2. Extensive preparation (detailed plan)

**SIS 7. Suicide note**

Did you write a note (or more) – to whom? Did you think about writing one? Decided not to? Why?

0. Did not write, or think of writing, a note

1. Thought about writing note but did not do it

2. Presence of note, or written/torn up

**SIS 8. (Communication of intent before the act). During the past year, did you tell neighbours, friends, family members implicitly or explicitly that you intended to harm yourself?**

Did you tell anyone about your plans to kill yourself? Did you indicate your desire to end your life, without actually saying so? Did you ever say you were tired of it all, things would not go on much longer etc. or give hints? Did you talk to anyone about ending you life?

0. No communication of intent

1. Ambiguous or implied communication

2. Explicit communication

**SIS 9. (Purpose of act). Can you tell me what you hoped would happen by harming your self?**

Did you think that other people would be better without you? Did you think it would change someone’s mind, or show someone how much you cared about them? Just wanted to get away from it all?

Thinking mainly of escaping from your problems? Did you think life after death would be more pleasant than this life?

0. Mainly to manipulate (sic) others or change environment

1. Temporary rest (+ other aspects)

2. Mainly to remove self from environment; death

**SIS 10. (Expectations regarding the fatality of the act). What do you think were the chances that you would die as a result of you act?**

Were you surprised to be alive after the attempt? Did you think the attempt would kill you?

If not, what did you think your chance of surviving was? Did you consider what you would happen if you survived? Did you have alternative plans in case the attempt failed? Did you think about what would be happening on the day after your attempt – did you think about your funeral or your body? Did you think about being injured, paralysed?

0. Thought death was unlikely, or had not thought about it

1. Thought that death was possible but not probable

2. Thought that death was probable or certain

**SIS 11. Lethality of Methods**

Did you think about other methods that would be more dangerous or less dangerous than harming yourself?

What other methods did you consider? Why did you not use those methods? Why did you choose this method? How soon did you think you would die?

0. Participant did less than they thought would be lethal (or didn’t think)

1. Not sure whether lethal

2. Act was what they thought as lethal or was more lethal

**SIS 12. (Seriousness of attempt). Did you consider your act to be a serious attempt to take your life?**

How sure were you that you wanted to end your life? How sure were you that you wanted to end your life by dying in this location? How sure were you that attempting this would end your life?

0. Did not consider the act to be serious attempt to end his/her life

1. Uncertain whether the act was a serious attempt to end his/her life

2. Considered the act a serious attempt to end his/her life

**SIS 13. (Ambivalence towards living). At the time, what were your feelings towards life and death? Did you want to live more that you wanted to die?**

Did you not care whether you lived or died? Were you hoping to live through the attempt? Did you hesitate at any time in your attempt? Is there anything in your life that would have made staying alive worthwhile?

0. Did not want to die

1. Did not care whether lived or died

2. Wanted to die

**SIS 14. (Perception of reversibility).**

What did you think that the chances were that you would be OK if given medical help? Did you think that doctors would be able to save you? What did you think was the worst that could happen if you were taken to hospital immediately after your attempt? What did you think were the chances that you would be seriously injured or paralysed?

0. Thought that death would be unlikely if they received medical help

1. Uncertain if they would be Ok if given medical help

2. Was certain they would die even if medical help was received

**SIS 15. (Degree of premeditation). How long before you harmed yourself did you decide to do it?**

Had you been thinking for a while? Or was it impulsive? How long did you think seriously about it before you made the attempt- week? Day? A few hours? Moments?

0. No prior thought – impulsive

1. Act contemplated for 3hrs or less before the attempt

2. Contemplated for more than 3 hrs before attempt

**DEBRIEF QUESTIONS**

(See interview guide for group 1)

**APPENDIX 4: INTERVIEW GUIDE FOR PARTICIPANTS IN GROUP 3**

**(Individuals who had thoughts of taking their lives on the railways, but did not attempt suicide)**

[Proceeded by Visual Analogue scale to assess participant’s mood at the start of the interview]

**1. Can you tell me a bit about yourself…**

**Check demographic details:**

* Age
* Gender
* Any history of mental health problems; psychiatric treatment; hospitalisation
* Education; employment; family etc. [interviewer to encourage free narrative, but use the Oxford Monitoring checklist to ensure that key information is covered]

**History of suicide attempts and previous self-harm without direct suicidal intent**

* How many times
* Methods (railway related and other methods)
* Severity

1. **FREE NARRATIVE: Could you to tell me in your own words about the thoughts you have had about attempting to harm yourself or end your life on the railways?**

**Prompts:**

* **Thoughts about suicide** (including perceived **reasons, motivation, burden to others)**
* **Specific triggers for thoughts**
* **Recent events**, losses, changes in situation
* **Feelings** and **mood - before, during and after the thoughts**
* **Images of suicide – visual; voices;** **flashbacks**
* **Past events** – previous **exposure to suicide** (direct and indirect; **media** and online exposure; perceived influence)
* **Plans for suicide** – Any plans made? Rejected?
* **Thoughts about method(s)** (includingcomparison of **methods**  – easy? quick? visible /hidden? pain?);
* Methods rejected
* **Thoughts about specific locations, including railway**
* **Thoughts rejecting railway and/or other locations** (including avoidance of particular locations)
* **Thoughts about media accounts of suicides (including railway suicides): media information** about suicide methods - TV/Radio, newspapers, social media, websites - and perceived influence
* **Direct information** about suicide methods and locations (**including railway suicides)** – personal sources, influences, personal experience.
* **Anticipation**: What did they expect from the attempt: death; pain/ injury; help; recognition of suffering?
* **Expectations about the outcome** – death, injury, being saved, problems solved, re-united with others, forgiveness, other.
* **Thoughts about being saved** (if applicable)
* Thoughts about **impact of chosen suicide method on others**
* Impact of railway methods (passengers, drivers, staff, bystanders, family and friends)
* **How long did these thoughts last?**
* **What stopped you from acting on these thoughts (including thoughts of railway)?** Strategies used to stop thoughts; **physical and psychological barriers**
* **What has helped? (**Received help,support, interventions, Treatment?)
* **What makes things worse?** What might make things worse?
* **What would prevent you from harming yourself in a railway setting in particular?**

1. **DEBRIEF QUESTIONS**

(See interview guide for group 1)