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Policy interventions to facilitate travel by people with mental health conditions

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ABSTRACT

About a quarter of the adults living in England have been diagnosed with a mental health condition (for example, anxiety and depression). The purpose of this paper is to discuss the difficulties faced by these people when they travel, and ways in which policy interventions could be used to encourage them to travel more. The main evidence in the paper comes from a weighted sample of 363 people with mental health conditions who completed an on-line survey. The paper concentrates on anxiety issues. The anxieties are considered under five headings: interacting with fellow travellers, interacting with staff and purchasing tickets, wayfinding, needing support, and needing to take urgent action. Policy interventions to improve access to infrastructure and services to help address the anxieties are discussed under these headings. The number of respondents who say that they would travel more if some of the interventions were introduced is then considered. The paper concludes that there are ways in which some of the anxieties that people have when travelling can be addressed and that introducing these types of intervention would increase travel by people with mental health conditions.

Keywords: mental health; anxiety; accessibility; interventions; policy.

1 THE RELATIONSHIP BETWEEN MENTAL HEALTH AND TRAVEL

Disabled people travel less than other people. For example, in 2019 in England, people with a disability or an illness expected to last more than 12 months made 840 trips each, on average, compared with 1,014 made by other people (Department for Transport, 2020). People with different types of disability face various barriers to travel. For example, Park and Choudhry (2018) found that people with physical and visual impairments faced a mixture of physical and intangible barriers. The former included hills, slopes, obstructions on the pavement and poor bus stop or terminal design. The latter included poor presentation of information and the bus driver's attitude and lack of awareness. There are examples of guidance to help overcome these barriers such as the Inclusive Mobility Guidelines (Department for Transport, 2005) in Britain, but these tend to focus on addressing the physical barriers¹.

The purpose of this paper is to discuss the barriers to travel faced by people with mental health conditions, particularly on public transport journeys. There are several mental health conditions, of which the commonest are anxiety, depression, panic attacks, post-traumatic stress disorder (PTSD), obsessive compulsive disorder (OCD) and phobias such as claustrophobia and agoraphobia (Bridges, 2015). Having a mental health condition can affect the skills used when travelling such as interpreting information and remembering routes and so can affect the ability to travel (Mackett, 2017). The paper will consider how policy interventions can be introduced to help overcome these barriers.

In England, 26% of all adults have been diagnosed with at least one mental illness at some point in their lifetime, while a further 18% say that they have experienced a mental illness without being diagnosed (Bridges, 2015). In the US, 19.1% of adults aged 18 or older, had a mental illness in 2018 (U.S. Department of Health and Human Services, 2020).

A number of researchers have examined the relationship between mental health and travel. In some cases, such as Melis et al. (2017) and Whitley and Prince (2005), having access to transport has been associated with better mental health because better accessibility has opened up opportunities which contribute to improved mental health. However, other researchers have examined the impact of the journey and found a negative impact on mental health. For example, Ferenchak and Katirai (2015) analysed data from the American Community Survey and found that both carpooling and use of public transport had strong and statistically significant negative associations with mental health issues.

Some researchers have measured stress when travelling and then examined the relationship with one or more aspects of journeys such as the duration. Anxiety is a reaction to stress which is the

¹ These Guidelines are currently being revised (Department for Transport, 2018). The new version may cover a wider range of barriers.

response to specific situations such as those encountered on a commuting journey. Journey duration has been considered by Hansson et al. (2011) who analysed the results of two cross-sectional population-based public health surveys in Scania in Sweden, and by Sposato et al. (2012) who carried out an on-line survey of 366 staff and students at the Medical University of Vienna. Evans and Wener (2006) examined samples of salivary cortisol and used self-reported questionnaires from a sample of 208 male and female suburban rail commuters who took the train to Manhattan in New York. All three research teams found that the greater the duration of the journey the greater the levels of perceived stress.

In their study of the effects of a major mass rail improvement between New Jersey and New York that removed the need to change trains, Wener et al. (2003) found that passengers on the new line had lower levels of stress than they had before the advent of the new service and lower than other passengers who used the old service. They attributed this to the reduced journey time and the increased predictability of the trip. The latter could come from factors such as better punctuality, connectivity and provision of information. Another piece of research in this area was by Gottholmseder et al. (2009). They analysed data from home interviews with 1029 workers in Voralberg in Austria. Using ordered logistic regression they found that several dimensions of the commuting trip, such as impedence, control and predictability, significantly influenced the perceived stress level of the study participants.

An aspect of commuting by public transport that may cause stress is overcrowding. Norgate et al. (2020) carried out a systematic review to generate evidence about the extent to which the journey affected the mental health, physical health and well-being of public transport commuters. Analysis of rail commuters showed elevation in salivary cortisol, perceived stress, and affective reactions to crowding. A key aspect of overcrowding is being in close proximity to fellow travellers. Evans and Wener (2007) studied 139 urban rail commuters during the rush hour and found that when people had to sit close to other passengers, they experienced adverse reactions in terms of stress, but the density of passengers in the carriage was not found to cause stress in this study.

Another aspect of travelling by public transport is interaction with other people, for example, the need to talk to staff in order to buy a ticket or obtain information and, occasionally, to fellow travellers. Hofmann (2007) reviewed the literature on social anxiety disorder and concluded that individuals with the condition who found themselves in challenging social situations adopted coping strategies, including avoidance, followed by post-event rumination, which led to further social apprehension in the future. An experimental approach was adopted by Hajure and Abdu (2020) who examined a stratified sample of 523 undergraduate students to identify the prevalence of social anxiety disorder and its impact on their quality of life. They found that talking to strangers was the most commonly avoided situation.

On unfamiliar journeys, it is necessary to use wayfinding techniques to find the way to the destination. Wayfinding is a very complex process requiring decision taking based on the synthesis of information recalled from memory or obtained during the journey (Farr et al., 2012). The relationship between wayfinding, stress and anxiety is complex. Brown et al. (2020) used two virtual-reality (VR) environments to simulate wayfinding behaviour. They found that stress disrupted memory and cognitive control during route planning, restricting neural simulation of future routes and biasing people away from planning efficient shortcuts in favour of familiar routes. Brunyéa et al. (2017) studied forty students in a laboratory and found that increased time pressure reduced the chances of finding the way efficiently.

Another aspect of travel that may cause anxiety is not being able to find a toilet when it is required. For example, Roy et al. (2018) studied the case of a man having urges to visit the toilet when in public places where toilets were not easily available which resulted in avoidance of such spaces fearing an episode of incontinence. This would affect his ability to travel. In a larger study, Kamboj et al. (2015) carried out an internet survey of 140 people and found a high prevalence of panic attacks (78% of the sample) which were especially prevalent among those with bowel-control anxiety. Of those who had panic attacks, 62% indicated that their main concern was being incontinent during a panic attack, which again could discourage people from travelling or force them to select particular modes or routes where they were confident they could find suitable facilities.

The evidence discussed above shows that there is a relationship between travel and aspects of mental health. Most of the studies have either examined a single aspect of travel or considered accessibility as a single variable amongst a range that may affect mental health. The purpose of the research being presented in this paper, is to identify the factors which a sample of people say cause them anxiety when travelling and then to consider policy interventions which may help to address these anxieties, in terms of whether their implementation would encourage the respondents to travel more. A comprehensive report on the work is available (Mackett, 2019).

2 THE SURVEY

There is evidence of fairly widespread negative attitudes towards people with mental health conditions (Public Health England, 2015). Because of this stigma, it was decided to carry out the survey on-line anonymously, so that respondents could answer frankly safe in the knowledge that nobody could identify them. The only personal information that they were asked to provide was their gender, their age group and the type of area they live in.

The survey was carried out on-line by distributing a link to a questionnaire coded in Opinio software through eighteen organizations and three individuals using social media (mainly Twitter), websites and newsletters. Both mental health and transport organizations were involved including Anxiety UK, the Centre for Mental Health, the Mental Health Action Group, the Office for Disability Issues, Rethink Mental Illness, SANE, Transport for London and Transport for Scotland. Responses were

received between 15 May and 26 July 2018. The survey had been approved by the UCL Research Ethics Committee.

Because it was an on-line survey it was not possible to ensure that the age and gender profile of the respondents matched that of the population with mental health conditions in the whole country. To address this issue, the results have been weighted using figures from the Adult Psychiatric Morbidity Survey (APMS) (McManus et al. 2016). Weightings were applied to the age-gender cohorts in the survey sample based on the number of people in those cohorts in APMS who had a mental health condition². There were 389 responses to the survey. Four were removed because they were from people without a mental health condition, leaving 385 useable responses. The weighting procedure meant that questionnaires from respondents who did not indicate their age or gender had to be ignored which left 363 responses which form the basis of the discussion in this paper.

The respondents could be anywhere in Britain³. They were asked questions about their mental health, whether their mental health ever prevented them from leaving home, and anxieties that they have when they go out. They were given a list of modes of travel and asked whether they had used them in the last year, and whether they were prevented from using any of them by their mental health condition. They were asked questions about walking, and travelling by bus, rail and car in terms of factors that might encourage them to travel more, and whether they received various concessions offered to disabled people, such as discounted travel. They were also asked about their experience of travel training and use of mobile phone apps for wayfinding.

Of the respondents in the weighted sample, 36% were male and 64% female. There was a wide age range with 27% aged 30 and under and 18% over the age of 60, reflecting the demographic profile in APMS (McManus et al. 2016).

The mental health conditions of those in the survey are shown in Table 1. Anxieties, including social anxiety and panic attacks, were reported by 89% of the respondents and 76% reported having depression. Other conditions mentioned included post-traumatic stress disorder (PTSD), obsessive-compulsive disorder (OCD), agoraphobia, and bi-polar disorder. It is difficult to make direct comparisons with the equivalent figures in APMS for several reasons. Firstly, the figures in that survey are based on the use of clinical questionnaires to determine the level of mental illness whereas in the survey being discussed in this paper the respondents are self-declaring that they have a mental health condition. Secondly in APMS, 46% of the respondents are diagnosed as having a Common Mental Disorder not otherwise specified (CMD-NOS). This used to be referred to as

² The respondents in this survey were weighted to match the age and gender profile of people in APMS whose score on the Clinical Interview Schedule (CIS-R) indicated that they had symptoms of anxiety and depression at a level likely to benefit from acknowledgement and possible intervention.

³ It is possible that respondents could have been outside Britain but all the organizations distributing the link are based in Britain, so the respondents would have needed to be in contact with one of them.

'mixed anxiety/depression'. If it is assumed that all these people have both anxiety and depression, and this figure is added to those for people diagnosed with generalised anxiety disorder (35%) and a depressive episode (19%), to give approximate figures for anxiety and depression, this gives a total of 81% for the former and 65% for the latter. These can be compared with the figures in Table 1 of 89% with anxiety and 76% with depression. The figures in Table 1 are somewhat higher but given the differences in the methodologies referred to above, it is not surprising that there are differences. It is possible that some respondents in the survey being discussed in this paper have symptoms of anxiety and depression that would not quite reach the threshold used in APMS but are sufficient to affect their behaviour when travelling. These differences reflect the nature of mental illness and the difficulty of giving an exact diagnosis.

All the respondents answered this question, with many people giving more than one answer, reflecting the complex nature of their mental health conditions. They reported an average of 2.6 conditions each. More women than men reported having each of the conditions.

TABLE 1 The mental health conditions of those in the survey

	% of respondents
Anxiety (including social anxiety and panic attacks)	89
Depression	76
Post-traumatic stress disorder (PTSD)	20
Obsessive-compulsive disorder (OCD)	14
Agoraphobia	13
Bipolar disorder	7
Other conditions	24
Total	100

Total number of respondents: 363.

3 ANXIETY WHEN TRAVELLING

3.1 Mental health and anxiety

The respondents were given a list of possible causes of anxiety whilst travelling, which had been identified from discussions with stakeholders and evidence in the literature (Mackett 2017, 2019). 99% of the respondents identified aspects of travel that caused them anxiety when travelling. (This is a greater proportion of the respondents than the 89% with a diagnosis of anxiety shown in Table 1 because respondents with diagnoses such as PTSD or agoraphobia may have anxieties about aspects of travel). The respondents were free to indicate as many as they wished. Respondents could also indicate other anxieties under the category 'Something else'. This paper focuses on how these psychological barriers affect travel and ways in which the environment can be modified through policy interventions to help address them. The percentage of respondents indicating that they have

each of the anxieties of the list is shown in Table 2. The reasons have been sorted into five categories which reflect the issues discussed in Section 1: interacting with fellow travellers, needing support, wayfinding, needing to take urgent action and interacting with staff and purchasing tickets. The groups have been ranked in decreasing order of the percentages of respondents.

TABLE 2 Causes of the anxieties that the respondents have when they travel classified by category

	% of respondents
Interacting with fellow travellers	84
What other people think about them	66
Having to mix with strangers	65
How other people behave	48
Needing support	82
Feeling out of control	64
Feeling claustrophobic and unable to escape	56
Not being able to obtain help	34
Wayfinding	67
Feeling disorientated	46
Getting lost	36
Having to take decisions about where to go	35
Remembering where they are going to	19
Needing to take urgent action	63
Failure of the bus, train or car	46
Finding suitable toilet facilities	42
Interacting with staff and purchasing tickets	51
Having to talk to staff such as bus drivers	45
Using ticket machines	20
Handling money	14
Something else	14

Total number of respondents: 363

3.2 Interacting with fellow travellers

Interacting with fellow travellers seems to be the largest cause of anxiety, affecting 84% of the respondents. The top reason is ‘What other people think about me’. This also relates to concerns about perceptions about other people’s behaviour. This can be illustrated by quotes from two respondents: *“On days I’m anxious and stressed, I can’t cope with people being near me, as I feel they are staring at me and talking about me and laughing at me”* (Woman aged 18-30); and *“People*

look at me, laugh, they won't serve me in shops, people point and laugh when I'm out, walking to the bus" (Woman aged 61-70).

Another factor is 'Having to mix with strangers' which is inevitable on many public transport journeys and is reflected in the quotes in the previous paragraph. However, it is clear from some of the comments made by the respondents that having to stand in crowded conditions is part of the problem. For example, a woman aged 31-40 explained *"When overcrowded on the train and having to stand in enclosed space, I often have anxiety or panic attacks"*. For some people having a seat is only useful if it is not shared, as this example by a man aged 51-60 shows *"Cannot stand to use public transport. If a full seat is empty I would sit down dreading anyone sitting next to me. If there is a seat occupied by one person I am not able to sit down and am forced to stand"*.

3.3 Needing support

'Needing support' was the second largest cause of anxiety, mentioned by 82% of the respondents. The issue of 'Feeling claustrophobic and unable to escape' was felt on the London Underground (a metro system) which many of the respondents said that they could not travel on (Mackett, 2019). Two women, both aged 31-40, explained the difficulties that they have: one said, *"I'm petrified of going on London Underground - I'm claustrophobic and scared that we'll get stuck in the tunnel and won't get help and I'll die there"*. The other explained *"I become very anxious about not being able to get outside easily, claustrophobic, and then feel my breathing and heart rate increase, become clammy and feel that I need to get out into the fresh air before I suffocate"*. Many of the respondents with these types of phobias coped by avoiding using the mode of travel that caused the difficulty.

The value put on having access to a supportive member of staff can be illustrated by two examples from the survey. A woman aged 41-50 said *"Luckily I found a guard who I was able to talk to and tell about my anxiety which help me calm down and was able to carry on with my travel"*. A younger woman aged 18-30 said, after describing a complicated situation that she had been in, *"It was impossible to remove myself from the situation and, when I eventually got out, I ended up nearly crying on a member of staff and telling them I was extremely anxious"*.

For some respondents, the only way some people could travel was by car driving. For example, one woman, aged 41-50, said *"I have to drive most of the time. If I don't drive I feel out of control. I don't trust other people driving me or my children. I don't like our lives being in someone else's hands"*. Another respondent said, *"I prefer to drive myself whenever I go out as I'm in control and don't have to be dependent on anyone when or if I have a panic/anxiety attack and want to go home"* (Woman aged 61-70). These examples illustrate the need to feel in control when travelling.

3.4 Wayfinding

67% of the respondents had anxieties about wayfinding and not becoming lost. There were a number of examples in the survey, such as the woman aged 51-60 who said *"I was 'lost' in my local*

town. I didn't know where I was or how to get home", and the younger woman who said "My PTSD was triggered and I ran away. I had no idea where I was and too scared to ask someone" (Woman aged 41-50). Some respondents recognised that they found wayfinding difficult: "I have extremely poor navigation annuity and when I get lost I panic and cry. A lot. And when I panic I lose the ability to speak, which makes things worse" (Woman aged 31-40).

A related concept is becoming disorientated on public transport, as illustrated by these examples: "I have missed my stop on the train several times. On one occasion I became disoriented and went on for several stops getting more and more confused eventually calling a friend who reminded me of the route" (Woman aged 41-50) and "When London Bridge was being refurbished I could not use it at all because the changed layout added to my existing experience of disorientation in mainline stations" (Woman aged 41-50).

3.5 Needing to take urgent action

Another cause of anxiety for travellers with mental health conditions is failure of the train, bus or car which affected 46% of the respondents. In the case of public transport, any deviation from the journey that was expected can cause anxiety. For example, a bus being diverted from its usual route caused one woman aged 18-30 to become anxious "The bus took a diversion. I was stressed. I tried to blank the outside out. I kept trying to reassure myself it will be back to normal soon. I missed my stop. Thinking we were still on the diversion I continued on the bus till they said it was end of route. I was so stressed and confused". An example of train failure was given by a woman aged 18-30 "My train broke down and I was extremely anxious because I had to quickly figure out which replacement train to get". A woman aged 61-70 described the effects of her car breaking down "Can only travel by car, driving myself. Car broke down. Panic. Meltdown. Found a house with a phone (no mobiles then). Panicked non-stop till car repaired. Unable to use alternative transport to get home. Still, decades later, unable to drive any distance, always aware car may break down."

42% of the respondents mentioned the need to find suitable toilet facilities was a cause of anxiety to them, particularly some of the older ones.

3.6 Interacting with staff and purchasing tickets

Having to talk to staff such as bus drivers caused anxiety for 45% of the respondents. This is illustrated by two examples, both women aged 31-40. One said, "I struggle with buses as you generally have to interact with the driver". The other explained "Buses are particularly difficult, and therefore my last resort option for travel, as there is no way of using them without being forced to speak to the driver, and also there's lots of anxiety about not knowing what to ask for".

Buying train tickets can also cause anxiety as this woman aged 31-40 explained "I get confused and anxious about buying tickets, which train to get on, and where to get off. I'm also extremely anxious

about spending more money than I had to on the tickets – not because I'm short of money, but just because money makes me anxious”.

4 POLICY INTERVENTIONS

4.1 Interventions in the survey

Various policy interventions involving accessible infrastructure and services may help to overcome some of the psychological barriers identified above. Mackett (2017) provides more information about them.

The respondents were asked whether some interventions would encourage them to travel more. This was either through questions which gave them a list of factors that might encourage them to walk or use bus or use train more, or through detailed questions about specific interventions to see how many of them had taken advantage of the intervention and if not, why not. The latter set of interventions were ones that are made available to disabled people in Great Britain so the main purpose of these questions was to see whether people with mental health conditions benefit from them. Other interventions were suggested by the respondents under the heading ‘Something else’ when they were asked about which interventions would encourage them to travel more by bus or train or walk more. One topic that caused anxiety was perceived poor behaviour by other people, and so the option ‘Better behaviour by other travellers’ was offered to the respondents. That is not a policy intervention, but would require action by individuals, which might be encouraged by interventions such as advertising campaigns. Table 3 summarizes some of the transport interventions and actions that can be used to help address the travel anxieties shown in Table 2. They are discussed in more detail below.

TABLE 3 Interventions and actions that may help to address anxieties about travelling

Cause of anxiety	Interventions and actions to address the anxiety
Interacting with fellow travellers	
What other people think about me	<ul style="list-style-type: none"> • Better behaviour by other travellers
Having to mix with strangers	<ul style="list-style-type: none"> • 'Please offer me a seat' badges • <i>Providing more seats on trains and buses</i> • <i>Reducing overcrowding</i>
How other people behave	<ul style="list-style-type: none"> • Better behaviour by other travellers
Needing support	
Feeling out of control	<ul style="list-style-type: none"> • Travel training
Feeling claustrophobic and unable to escape	<ul style="list-style-type: none"> • Better trained bus and railway staff • More places to ask for help • <i>Clear signposting to exits</i>
Not being able to obtain help	<ul style="list-style-type: none"> • More places to ask for help • Better trained bus and railway staff • Being able to contact a member of staff in person when on the train
Wayfinding	
Feeling disorientated	<ul style="list-style-type: none"> • Travel training
Having to take decisions about where to go	<ul style="list-style-type: none"> • Clearer bus or rail timetables and maps • Clearer websites
Getting lost	<ul style="list-style-type: none"> • Clearer information screens on board trains and buses • Better signposting on the street
Remembering where they are going to	<ul style="list-style-type: none"> • <i>Wayfinding apps</i> • Better trained bus and railway staff • <i>Passenger Assist schemes at railway stations</i>
Needing to take urgent action	
Failure of the bus, train or car	<ul style="list-style-type: none"> • Better trained bus and railway staff • Clearer bus or rail timetables and maps • Clearer information screens on board trains and buses • Better signposting on the street
Finding suitable toilet facilities	<ul style="list-style-type: none"> • Providing more toilet facilities • <i>Better signposting of toilet facilities</i>
Interacting with staff and purchasing tickets	
Having to talk to staff such as bus drivers	<ul style="list-style-type: none"> • Better trained bus and railway staff • Travel Assistance Cards
Handling money	<ul style="list-style-type: none"> • Travel training
Using ticket machines	<ul style="list-style-type: none"> • Travel training • <i>Staffed ticket offices</i> • <i>Better design of ticket machines</i>

Note: Interventions shown in *italics* are not included in Table 4 below. Some of these were suggested by the respondents.

4.2 Interacting with fellow travellers

The main concern for the respondents about interacting with other people was how their fellow travellers behaved. This is a difficult issue to address. Bad behaviour takes a variety of forms and, to some extent, is a subjective concept. For example, some people may behave in a way that they regard as reasonable that others find unacceptable, for example, speaking very loudly.

Extreme forms of bad behaviour by the public may be discrimination offences, but it would probably be difficult to prove such cases and would require the victims of the discrimination to be willing to participate in a prosecution. Nonetheless, given the large potential increase in the number of travellers if behaviour in public could be improved, it seems to be worthwhile to try. One approach is to carry out public awareness campaigns. For example, advertising campaigns could be used to encourage the public to be more understanding about the needs of their fellow travellers, even if those needs are not visible. A good example is the one launched by the Department for Transport in Great Britain in late 2019 under the slogan 'It's everyone's journey' (Department for Transport, undated). This approach encourages travellers to be more understanding about other people's behaviour, which may lead to greater empathy towards people with mental health conditions. In the longer term, this may give people with this type of anxiety greater confidence to travel.

Concerns about having to travel in close proximity to strangers on public transport suggest that it is important to provide sufficient seats for everyone to be able to sit, to ensure a variety of configurations of seating and to reduce overcrowding. Ensuring that everyone has a seat and reducing overcrowding are difficult in the peak period when transport systems are running at or near to capacity. When there are no seats available, wearing a 'Please offer me a seat' badge of the type introduced on the London Underground may encourage a person who is sitting to offer his or her seat (Transport for London, undated).

4.3 Needing support

Travel training provides practical help in making journeys by public transport or on foot, tailored to the specific needs of travellers in order to help them to travel independently with confidence. There are a range of comprehensive schemes. They usually involve classroom exercises and then journeys with a trainer on an individual basis providing experience and giving people the confidence to make unaccompanied journeys. It can assist people to improve their confidence in various ways including where to find support and wayfinding.

'Feeling out of control' is one of the biggest causes of anxiety. If it is entirely due to the person's mental health condition then there is little that transport professionals can do to help. However, in some cases, some of the interventions being discussed here, including travel training, having well-trained staff around and providing good quality wayfinding information, may help to reduce the feeling of lack of control by increasing the confidence of the traveller. Some of the respondents addressed this issue by driving a car on all their journeys, and so avoiding the use of public transport.

One way to provide support on public transport systems is having staff available to provide information. Ideally, all staff who interact with the public should have received training in communicating with people with mental health and similar conditions and so can provide empathetic assistance to any travellers who are anxious as a result of being lost. These travellers will also be assisted by being able to contact a member of staff when travelling by bus or train. When on a bus, the driver can be approached for assistance but on a train it may be more difficult.

Some people with claustrophobia have concerns about being able to escape and so avoid the modes which cause the concerns, but for those who do travel, there need to be well-signposted clear escape routes and trained staff around to provide support.

People who become lost when out on the street can go to a 'Safe Place' if one is available. A 'Safe Place' is a shop or service provider which carries a 'Safe Place' logo and has staff who have been trained to provide support for people who ask for help including being lost (Safe Places National Network, undated). 'Safe Places' would also assist people having a panic attack who need a quiet place where they can sit away from crowds, with an empathetic person available to talk to.

4.4 Wayfinding

Preparation for individual journeys can be facilitated by the provision of clear bus and rail timetables and maps both on paper and on websites. Information can be used to assist wayfinding during a journey. This may be in the form of signposts and maps on the street and audio-visual information on buses and trains indicating the next stop and the final destination. Another way to receive wayfinding information whilst travelling is by using a mobile phone app. 65% of the respondents said that they use apps for finding the way, particularly younger people (Mackett, 2019). The most popular wayfinding app was Google Maps which was used by 44% of the respondents who used mobile phone apps.

One place where travellers in Great Britain can request guidance is railway stations by using the 'Passenger Assist' scheme (National Rail, undated). This is a scheme in which a traveller can telephone a free phone number and explain what sort of assistance they require and the company operating the station will provide staff to address the requirement. The assistance provided can include meeting the passenger at the station entrance, providing assistance to navigate around the station, and helping the passenger on and off the train. Few of the survey respondents had used Passenger Assist but the majority of those had used it found that it did not work well at least some of the time (Mackett, 2019). This is illustrated by a man aged 51-60 who summed up his experience: *"You can turn up and there is no one to assist you, or they bring a wheelchair. Why? I can walk, it's my mind that is affected"*.

4.5 Needing to take urgent action

It is inevitable that public transport services will be disrupted occasionally, but, given the need for support and guidance shown in Table 2, passengers need operators to make every endeavour to

provide sufficient information to help them to continue their journeys with confidence. This may be through having staff available, audio-visual displays and posters showing alternative routes. When services are delayed, passengers need reassurance by being told the expected length of the delay with frequent updates. The onus of dealing with a car breakdown rests with the driver but breakdown organizations often give priority attention to certain groups which may include people with serious anxiety issues.

One issue that caused considerable anxiety to 42% of the survey respondents, particularly the older ones, was being confident that they would be able to find suitable toilet facilities when they travel. To address this local authorities and transport operators can provide more public toilets and ensure that they are always available when people are travelling. They can also provide clear signposting showing where to find them.

4.6 Interacting with staff and purchasing tickets

There are several ways to improve interactions with staff. One is to train staff to understand the needs of people who have difficulty communicating because of their mental health conditions or other factors. A second type of intervention that would help here are Travel (or Journey) Assistance (or Support) Cards (see, for example, Metro, 2021), which are small cards that can be shown discretely to staff, particularly to bus drivers, to explain the card holder's specific needs, such as assistance counting the change received or requesting that the bus is not moved until the passenger is seated. The key point is that the card holder has greater confidence that his or her needs will be met without having to make the request in a way that other passengers can hear. The success of the intervention also relies on the bus driver being trained to understand and respond to the request empathetically. A third approach is to reduce the need to interact with staff when purchasing a ticket. This can be done by use of travel passes, particularly ones that are machine readable. This is straightforward if the person is allowed to travel free of charge or there is a flat fare system but more complex when multiple fares are offered. Offering free travel can also help to address the issue of 'Handling money' which made 14% of the respondents feel anxious.

A related issue that causes anxiety for 20% of the respondents is 'Using ticket machines'. This can be addressed by ensuring that rail tickets can be bought from a member of staff at any time that trains are operating. It may well be that the design of ticket machines can be made more intuitive so that they do not cause so much anxiety. Their use can be covered in travel training, so that the traveller can be given greater confidence in using them. Alternatively, offering free travel passes will remove the need to purchase tickets. Stored value tickets may reduce the need to buy tickets for individual journeys but adding value to the card may cause anxiety.

5 THE IMPACT OF THE INTERVENTIONS

5.1 Introduction

Table 4 summarizes the results that were obtained for the interventions where the respondents were explicitly asked whether the intervention would encourage them to travel more. Where the intervention is not specific to a particular mode, the figures have been aggregated across the modes with double counting removed. Some of the interventions would help overcome more than one type of psychological barrier.

TABLE 4 Percentage of all respondents who say that they would travel more as a result of policy interventions and actions

	Bus	Train	Walk	Bus, train and walk
Interacting with fellow travellers				
Better behaviour by other travellers	50	48	44	65
'Please offer me a seat' badges				23
Needing support				
Better trained bus and railway staff	32	41		48
Being able to contact a member of staff in person when on the train		42		42
Travel training				40
More places to ask for help			18	18
Wayfinding				
Clearer information screens on board trains and buses	48	33		55
Clearer bus or rail timetables and maps	45	36		51
Better trained bus and railway staff	32	41		48
Travel training				40
Clearer websites	30	25		35
Better signposting on the street			21	21
Needing to take urgent action				
Clearer information screens on board trains and buses	48	33		55
Clearer bus or rail timetables and maps	45	36		51
Better trained bus and railway staff	32	41		48
More toilet facilities	28	37	29	48
Better signposting on the street			21	21
Interacting with staff and purchasing tickets				
Better trained bus and railway staff	32	41		48
Travel training				40
Travel Assistance Cards	41			41

5.2 Interacting with fellow travellers

A major area of anxiety was interacting with other travellers. 'Better behaviour by other traveller' was the factor that the greatest number said would lead to them travelling more, mentioned by 65% of them. It would probably help people made anxious by what they believe that others think about them. As implied above, this is difficult to address because of the lack of control over the behaviour of the general public, but the type of public awareness campaign discussed above may be effective.

A more specific intervention to help interactions with fellow travellers is the 'Please offer me a seat' badge which 23% of the respondents said would encourage them to travel more. It is, however, worth noting that only 2% of the respondents had a badge and that 70% of those who did not, said that they would not be happy to wear one (Mackett, 2019).

5.3 Needing support

The key to providing support on public transport seems to be having access to staff who can be contacted in person when travelling. The need for the staff to have been trained to understand the requirements of people with mental health conditions is illustrated by the figure of 48% of the respondents who mentioned that better trained staff on buses and trains would encourage them to travel more, particularly on trains. The importance of having access to a member of staff who could be contacted in person when on a train was shown by the fact that 42% of the respondents mentioned that this would encourage them to travel by rail more.

18% of the respondents said that places to request help when out on the street, such as 'Safe Places', would encourage them to walk more.

The other intervention that would encourage more travel by helping those whose anxiety is associated with needing more support is travel training, which 40% of the respondents mentioned. It would help them to know where to go to ask for support and increase their level of confidence when travelling.

5.4 Wayfinding

The key to assisting with wayfinding seems to be providing clear information, both before and during travel. Over half the respondents said that they would travel more if clearer information were provided. In particular, information screens inside buses and trains, mentioned by 55% of the respondents, would help, as they provide reassurance that the traveller is on the correct bus or train and identify the next stopping point so that the traveller can prepare to alight at the correct stop. There seems to be major issues with the design of bus and rail timetables and maps because 51% of the respondents said that they would travel more if timetables and maps were made clearer. Such information is often provided on websites but, again, there is scope for improvement, because 35% of the respondents said that doing so would encourage them to travel more. Better signposting on the street would encourage 21% of them to walk more.

As well as providing support to travellers who need it, staff who have been trained well will be able to provide wayfinding information in an empathetic way.

A longer-term approach is to provide travel training, so that the traveller has greater confidence about finding his or her way, which 40% of the respondents said would encourage them to travel more.

5.5 Needing to take urgent action

Two issues come under the heading 'The need for urgent action': coping with the failure of the bus, train or car and the need to find suitable toilet facilities. Nearly half the respondents were made anxious by concerns that the vehicle that they were travelling in would fail, either by breaking down or by being diverted from its usual route, as discussed above. The key to addressing this is providing accurate information about how to continue the journey, through audio-visual displays, clear maps and timetables and by having well trained staff available to provide assistance. About half the respondents said that each of these would encourage them to travel more. In some cases, better signposting on the street may help, for example when a bus breaks down and no alternative vehicle is available. The key point is that, before setting off on a journey, the anxious traveller needs to feel confident that suitable guidance will be available about what to do if there is a change from the expected journey.

48% of the respondents said that they would travel more if more toilet facilities were available. Trains is the mode where there would be the largest growth, possibly because this is the mode where journeys tend to be the longest. This is such a basic human need that it seems extraordinary that so many people are being deterred from travel because of it. Implicit in this requirement is that the facilities are open, in a suitable condition for use and that they can be found easily by being well signposted. The required policy intervention is clear: make more public toilets available.

5.6 Interacting with staff and purchasing tickets

Interacting with staff and purchasing tickets would be facilitated by having better trained bus and railway staff available to assist passengers, since nearly half the respondents said that this would encourage them to travel more. 41% of the respondents said that Travel Assistance Cards would encourage them to make more journeys. Another approach would be travel training which would help some people with mental health conditions by equipping them with the skills so that they are sufficiently confident to buy tickets from staff or tickets machines or to know where to seek help. Travel training should also include making the traveller aware of schemes such as the Travel Assistance Card and how to obtain and use one.

6 ASSESSMENT OF THE WORK

It should be acknowledged that the figures in Table 4 are all hypothetical, based on what a sample of people say that they would do if the nature of journeys improved in terms of causing them less

anxiety. The levels of change would be influenced by a range of factors, including the detail about the implementation of the intervention and the level of awareness about the change. For example, a person who has given up travelling by bus because of a bad experience with a bus driver would need to be made aware of the change that has occurred. Also, just because a person has said that he or she will react in a particular way, this may not happen in practice. On the other hand, some people who did not say that they would travel more, might do so following the intervention.

The results are all based on an on-line survey of 385 people who may not be fully representative of all the people with mental health conditions in Great Britain. Weights based on age and gender have been applied to the 363 respondents who gave this information so that it matches the population with one or more mental health conditions in terms of age and gender. Weighting also helps to address the fact that some people with mental health conditions might lack the ability and confidence to complete the survey.

While there has been a wide range of research relevant to the theme of travel and mental health, as indicated in Section 1 above, there appears to have been little research exploring the whole range of anxieties that people can have while travelling, so the results described in this paper should be of interest to people elsewhere in the world outside Great Britain, and of relevance in countries with similar cultures and transport systems.

7 CONCLUSIONS

The relationship between mental health and travel is complex. This paper has used the results from an on-line survey of people with mental health conditions, to show the nature of the anxieties that a large proportion of travellers have when they travel. These are caused by a range of factors including concerns about finding the way and becoming lost, having to interact with staff and other travellers and the lack of public toilets. It has been shown that there are a range of ways of improving infrastructure and services that could address these issues. Furthermore, the extent to which the survey respondents say these types of improvement would encourage them to travel more has been shown. Whilst it is important to acknowledge that these figures are based on stated intentions that may not be realised in practice, they do suggest that these improvements will stimulate growth in the number of travellers. In some cases, this would increase revenue for transport operators, and so may cover the costs of implementation. Others are relatively inexpensive. Many of them would benefit everybody by making travel simpler and more comfortable. There are many good reasons why these possible interventions to increase the accessibility of infrastructure and services should be discussed and used to form the basis of policy and action. By doing so, a significant proportion of the population should have an improved quality of life because of the reduction in anxiety and greater range of opportunities available to them.

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