

# TRAUMATIC BRAIN INJURY AMONG MEN AT A WESTMINSTER HOSTEL



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## Introduction

Those experiencing homelessness on average die 30 years sooner than the general population.<sup>1</sup> There is substantial evidence to show that poor physical and mental health is prevalent among the homeless population.<sup>2</sup> Compounding the extremely poor health and early morbidity are the numerous barriers experienced to accessing health services.

The incidence of head injuries or traumatic brain injuries (TBIs) among homeless populations is approximately 50%, with reports indicating a rate as low as 43% (Mackelprang et al, 2014<sup>3</sup>), 45% (Topolovec-Vranic, 2014<sup>4</sup>), 53% (Hwang et al 2008<sup>5</sup>; Topolovec-Vranic, 2017) and 64% (To et al., 2016<sup>6</sup>). Additionally, research has found that many adults experiencing homelessness report the head injury occurred before becoming homeless (Hwang et al 2008<sup>7</sup>, McMillan 2014<sup>8</sup>, Mackelprang et al, 2014<sup>9</sup>).

The impacts of a TBI can be numerous and wide ranging, resulting in emotional, cognitive, sensory, and physical difficulties. Some common themes include memory impairment, lack of insight, difficulty planning, emotional outbursts, and possible reduction in the ability to think through problems<sup>10</sup>. Consequently, those experiencing homelessness as well as a TBI face unique challenges.

The documented frequency of traumatic brain injuries (TBIs) within those experiencing homelessness indicates a noteworthy concern. Despite this, TBI is rarely addressed in research and strategies related to homelessness. A review (Chan et al 2023)<sup>11</sup> of clinical practice guidelines for TBI and homelessness found that only 5.2% of the CPGs for TBI included evidence regarding homelessness (Chan et al 2023).

To add to the growing evidence base surrounding the prevalence of TBIs amongst those experiencing homelessness, this report presents the results of a BISI screening at a 79-bed hostel in Westminster.

## Methodology

Brain Kind's Brain Injury Screening Index (BISI)<sup>12</sup> was completed with residents at the hostel. The BISI is an 11-question screening tool to help identify people with a brain injury that records an individual's

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<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsofhomelesspeopleinenglandandwales/2019registrations>

2 <http://www.crisis.org.uk/pages/health-and-dependencies.html>

3 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4167112/>

4 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4084748/>

5 <https://www.cmaj.ca/content/179/8/779.short>

6 <https://bmcpublihealth.biomedcentral.com/articles/10.1186/s12889-016-3711-8>

7 <https://www.cmaj.ca/content/179/8/779.short>

8 <https://jnnp.bmj.com/content/85/11/1214>

9 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4167112/>

10 <http://www.homeless.org.uk/sites/default/files/site-attachments/Brain%20Injury%20and%20Homelessness%20March%202017.pdf>

11 [https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370\(23\)00329-2/fulltext](https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370(23)00329-2/fulltext)

12 <https://brainkind.org/about-brain-injury/>

self-reported history of brain injury. The information presented is from 30 anonymous BISI surveys, completed on 24 November 2023 by experienced staff working at the hostel.

## Data analysis

The data collected from the 30 anonymous BISI surveys was inputted into an excel spreadsheet by Change Communication, cleaned and compiled into the format visible in this report. Many of the participants were only able to recall the details of their first head injury and consequently data from question 7 of the BISI could not always be clearly interpreted.

## Demographics

One hundred percent of those surveyed were male. Of the 30 respondents stating they had suffered a serious blow to the head, the average age of participants was 54 years old, the youngest was 28 and the oldest was 77.

## Findings

57% of clients reported they had suffered a brain injury during their lifetime. 46% of clients reported they had experienced more than one head injury. Many participants who reported “a serious blow to the head” were unable to state whether they lost consciousness and or how long they remained unconscious. Therefore, it was only possible to estimate the severity of the reported injury in 6 cases. Of these 6 cases, 4 participants experienced a very severe or extremely severe brain injury. 17 of the respondents were assessed to require follow up support by Change Communication.

On average, participants scored 7.7, with scores ranging from 0 to 24. The standard deviation, a measure of how much scores differ from the average, was 16.97. Because the standard deviation is higher than the average, it means scores varied a lot among participants.

The middle score, or median, was 5.5. Due to the wide variation in scores, the median may be a better measure than the average since it's less affected by extreme scores in this group.

## Limitations

As with any study, it is crucial to acknowledge potential limitations. Importantly, there is the possibility that the experiences of specific groups might not have been adequately documented. For instance, those who participated in the BISI could be individuals who felt more capable, both mentally and physically, to engage. Consequently, the data figures may not accurately reflect the entire population accessing the service.

There is also the potential for selection bias. For instance, unintentional bias may arise if hostel staff asked residents with whom they have a positive relationship to participate in the survey.

## Conclusion

In line with existing research, this study indicated that 57% of the hostel residents had experienced a head injury in their lifetime, with 46% reporting more than one head injury. Traumatic head injuries are prevalent in this client group and unfortunately TBIs are rarely addressed in clinical practice guidelines and strategies related to homelessness.

## Recommendations

Chan et al (2023)<sup>13</sup> highlighted the importance of prioritising fairness in clinical practice guideline development, especially given the increasing focus on inclusion, diversity, equity, and accessibility in healthcare. The review also suggests involving disadvantage populations in all stages of guideline development and that clinical practice guideline developers should include evidence about TBIs and homelessness in their respective guidelines. Consequently, it is recommended that clinical practice guideline developers work with charities such as Groundswell (charity working with people experiencing homelessness offering opportunities to contribute to society and create solutions to homelessness). A Pathway Policy Report (August 2023)<sup>14</sup> provides robust reasons to include people with lived experience.

Further recommendations include making TBI training and brain injury screening available in all frontline services in contact with those experiencing homelessness (for example hostels, Accident & Emergency departments).

A report called Delivering health and care for people who sleep rough by the Kings Fund (2020)<sup>15</sup> states that services need to find and engage with people experiencing homelessness. For specialist brain injury services to effectively assist homeless individuals with brain injuries, it is essential to introduce innovation in service provision. Specialist brain injury services need to be present and accessible in homeless services, providing assertive outreach to ensure they reach this client group. Service providers should reevaluate traditional linear pathways in community brain injury rehabilitation teams, considering alternative models, skill combinations, and desired outcomes.

Additionally, emphasis should be placed on proactive support. For example, social workers can effectively identify the needs of individuals with traumatic brain injuries (TBI) by incorporating tools such as the Brain Injury Needs Index (BINI) into assessments. Additionally, specialised assistance should be readily accessible for individuals 'at risk' of TBI to prevent the potential loss of their housing tenancy.

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<sup>13</sup> [https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370\(23\)00329-2/fulltext](https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370(23)00329-2/fulltext)

<sup>14</sup> <https://groundswell.org.uk/wp-content/uploads/2023/08/Pockets-of-Excellence.pdf>

<sup>15</sup> <https://www.kingsfund.org.uk/sites/default/files/2020-02/Delivering-health-care-people-sleep-rough.pdf>

