ABSTRACT

Background Media reports of suicide may provoke further ‘copy-cat’ suicides. Trends in reporting quality and impact of reporting on suicides from a particular ‘hot-spot’ have not been investigated previously.

Methods Inquest files and death certificates were used to identify suicides from Clifton Suspension Bridge, Bristol, UK, 1974–2007. Copies of local newspaper and television reports within 3 days of death or inquest were obtained. Parametric survival models were used to examine the impact of media reports on subsequent suicides.

Results Over 34 years, there were 206 suicides and 427 media reports of suicide from the bridge. The number of reports per suicide has declined markedly from 2.8 per suicide in the 1970s to 0.7 per suicide in the 2000s (P < 0.001). While some aspects of reporting improved, others deteriorated or remained poorly reported. There has been an increase in sensational reporting (use of images was 5% in the 1970s and 16% in the 2000s) and in information about the suicide method. There was no evidence that media reports provoked further suicides.

Conclusions Media reporting of suicide from Clifton Suspension Bridge declined over the study period; however, most aspects of the quality of reporting remained poor. There was no evidence of media reports provoking further suicides.

Keywords media, suicide, UK

Introduction

There is strong evidence from systematic reviews that media reporting of suicide may provoke further suicides and influence an individual’s choice of suicide method (so-called ‘copy-cat’ suicides).1–3 In response to these concerns, several national and international organizations have issued reporting guidelines for journalists.4–6 Specific recommendations include limiting details of the method used; acknowledging the complexity of suicide and the role of mental illness; not sensationalizing or glamorizing the suicide; and inclusion of preventative messages. The UK’s National Suicide Prevention Strategy, published in 2002, includes a specific goal aimed at improving the reporting of suicidal behaviour in the media.7

Worldwide, a number of so-called ‘hot-spots’ such as the Golden Gate Bridge in the USA have gained notoriety as popular locations from which individuals end their lives by jumping.8 In the UK, the Clifton Suspension Bridge in Bristol is the second most common site for jumping suicides after Beachy Head.8–10 There has been no previous assessment of media reporting of suicides at ‘hot-spots’ and its impact on suicide. Furthermore, few previous studies have examined the impact of the quality of reporting on subsequent suicides, and, to the best of our knowledge, there has been no investigation of the impact of media reporting on suicides in the UK. The aim of this study is to investigate changes in the quality of local media reporting of consecutive suicides from Clifton Suspension Bridge over the period 1974 and 2007, and the association between those reports and the subsequent incidence of suicide from the bridge.
Methods

Details of suicides from Clifton Suspension Bridge (1974–2007) were obtained from the Bristol Coroner’s Office. Methods for identifying these cases have been described previously.10,11 The Avon Coroner investigates all possible suicides occurring in the Bristol and surrounding area (population ~1 million). Dates of inquests were obtained from inquest files, electronic records at the Avon coroner’s office and death certificates. One additional suicide, not included in previous studies, was identified from media reports.

Data collection

Newspaper archives (1974–2007) were searched at Bristol City Library. Six local papers were in circulation in Bristol at some point during the study period. The two main daily local newspapers, Bristol Evening Post and Western Daily Press, were published throughout the study period. These papers were visually scanned for relevant articles on the day of and 2 days following a death or inquest. Photocopies were made of all relevant articles.

Four papers were excluded for the following reasons. Only one relevant article was identified in one weekly paper scanned for 1974 and 1975 compared with 15 and 17 for the main daily papers included in the study. This paper ceased production in 1990, and its impact was therefore considered as minimal. Two newspapers, which ceased production in 1984 and 1988, were scanned but their focus was on fashion and social events rather than local news. Back issues of a free local weekly paper were unavailable for the study period, and it currently publishes a selection of articles that have previously appeared in the Bristol Evening Post.

Television footage was obtained from archives of the two local companies: BBC and ITV West. Each television company had a searchable electronic database of images used in news items. News items relating to suicides from the Bridge were identified and copies of written summaries and footage made. Excluded news items related to issues such as the design of safety barriers, prevention of individuals attempting suicide and events such as funerals occurring outside the 3-day period following the death or inquest.

A standard data extraction form was completed for each suicide report. These forms included measures of reporting quality developed to assess the consistency of reports with guidelines for journalists produced by the UK-based charity MediaWise published in 2003.5 Based on these guidelines, six main areas of quality were identified and each area given a weighting to contribute towards the overall quality score (Table 1).

Weightings were based on judgements made by the researchers concerning the likely importance of particular features of reports. A sensitivity analysis of the overall quality score with the six areas of quality equally weighted was also undertaken. Three investigators piloted the data extraction form independently coding 10 reports. The form was then refined, and a further 10 reports were rated by the same three investigators. The agreement between the coders was high ($\kappa \geq 0.85$) for most questions. The exceptions were questions concerning the use of sensational language, identified in other studies as difficult to define, although agreement was acceptably high ($\kappa \geq 0.75$).12 Two of the investigators then coded all reports. Where television footage was unavailable, the written summary of the footage was used.

Geographical area of exposure

Current geographical distributions of the coverage of the two local newspapers and television news programmes were obtained. Historical boundaries were unavailable. The Bristol Evening Post had a circulation area broadly coterminous with the former county of Avon (the city of Bristol and neighbouring towns, approximate population 1 million). The Western Daily Press and both television companies covered similar but substantially larger geographical areas than the Bristol Evening Press. Two areas of exposure were defined, ‘Local media area’, the area covered by the Bristol Evening Post, and ‘Wider media area’, the area covered by the Western Daily Press. Analysis of the association between media reports and the subsequent rate of suicide included reports of suicides of people living outside of these boundaries in the measurement of exposure, but excluded those suicides from the measurement of outcome as the individuals were unlikely to have been exposed to local media reporting.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Component of quality</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Avoid the use of sensational headlines, language and images</td>
<td>10</td>
</tr>
<tr>
<td>B</td>
<td>Do not provide details of the method used</td>
<td>15</td>
</tr>
<tr>
<td>C</td>
<td>Acknowledge the complexity of suicide and link with mental health</td>
<td>5</td>
</tr>
<tr>
<td>D</td>
<td>Provide help and advice</td>
<td>5</td>
</tr>
<tr>
<td>E</td>
<td>Acknowledge the impact on survivors</td>
<td>3</td>
</tr>
<tr>
<td>F</td>
<td>Reduce the prominence of articles</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 1 Components of the total quality score for media reports (further details of the quality scoring are contained in the Supplementary data, Table S1)
Statistical analysis
The patterns of change in the quality of reporting of deaths and inquests over time were estimated using fractional polynomial models, these models being able to accommodate complex patterns of change over time. First- and second-degree models were considered, with the most complex models supported by the data being presented, along with the level of evidence (P-value) against the null hypothesis of no change in the quality of reporting over time.

The effect of media reports on the subsequent rate of suicide was investigated using a parametric survival model, with the times from each media report until the next suicide being well described by a Gompertz distribution. For the Gompertz distribution, two parameters capturing the overall rate of suicides and the distribution of suicides over time can be estimated from the data. The evidence for reports of deaths or inquests being followed by a temporary increase in the risk of suicide was quantified by a Wald test of the second ancillary parameter of the Gompertz distribution being equal to zero. An ancillary parameter of zero indicates that media reports are unrelated to the subsequent rate of similar suicides and more than zero indicates that media reports are followed by a temporary decrease in the rate of similar suicides.

Due to the marked impact of the installation of barriers at the end of 1998 on the number of suicides from the bridge, the survival models were stratified to consider the periods before and after the installation of barriers separately. The analysis was repeated to include suicides of residents in the ‘local media area’ and 165 residents of the ‘wider media area’. The majority were men (77%), and the mean age was 35 (range 15–68). Before the safety barriers were installed in December 1998, there were on average 7 suicides per year (176 suicides/25 years). After the barriers were installed, there was a significant reduction in suicides to ≏3 per year (30 suicides/9 years). The number of suicides varied considerably by decade, peaking in the 1980s with on average 8.1 per year.

Results
Cohort
There were 206 suicides from the Clifton Suspension Bridge between 1974 and 2007, these included 141 residents from the ‘local media area’ and 165 residents of the ‘wider media area’. The majority were men (77%), and the mean age was 35 (range 15–68). Before the safety barriers were installed in December 1998, there were on average 7 suicides per year (176 suicides/25 years). After the barriers were installed, there was a significant reduction in suicides to ≏3 per year (30 suicides/9 years). The number of suicides varied considerably by decade, peaking in the 1980s with on average 8.1 per year.

Reporting
The majority of deaths from the Bridge (134/206; 65%) and subsequent inquests (117/206; 57%) were reported. Altogether, we identified 427 media reports concerning suicides from the Bridge, an average 12.6 (range 0–43) reports per year, only 15 of these were television reports. There were on average 2.1 reports for every case (range 0–10 reports). Reporting peaked in the 1970s with 90% (26/29) of deaths and 79% (23/29) of inquests reported, this declined to 36% (10/28) of deaths and 29% (8/28) of inquests reported in the 2000s. The average number of reports per suicide (including reports of the subsequent.
inquest) declined from 2.8 in the 1970s to 0.7 in the 2000s (the Kruskal–Wallis non-parametric test of the null hypothesis of an equal number of reports per suicide across the four decades, \( P < 0.001 \)). The reduction in reporting was most apparent in the last two decades (Fig. 1). Two deaths were classified as ‘celebrity deaths’, and one death concerned an individual implicated in a murder case.

### Quality

Taking the poorest quality report of each death or inquest, there was evidence of a deterioration in the total (weighted) quality score over time (\( P = 0.037 \); Supplementary data, Fig. S1). This was most apparent as a deterioration in the reporting of inquests after the 1970s, although the difference between trends in the reporting of deaths and inquests was consistent with chance (\( P = 0.14 \)). However, sensitivity analysis with the six components of the quality score equally weighted showed evidence of a small, steady improvement over time (\( P = 0.033 \); Supplementary data, Fig. S2).

Changes were observed within the individual components of quality (Fig. 2), with improvements in two areas: reduction in the prominence of reports, and acknowledging the complexity of suicide. The reduction in prominence resulted from declines in both the number of reports published per event (death or inquest) and in front page reporting in newspapers. In the 1970s, 30% (23/77) of newspaper reports were printed on the front page. By the 1990s and 2000s, this had declined to 5% (1/19). A decline in television reporting has also contributed to the decline in prominence, with no TV reports broadcast in the 2000s.

### Table 2

<table>
<thead>
<tr>
<th>Reports included</th>
<th>Any</th>
<th>Poor quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presented statistics</td>
<td>Gompertz parameter, ( a ), ( P )-value</td>
<td>Gompertz parameter, ( a ), ( P )-value</td>
</tr>
<tr>
<td>Prior to installation of barriers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local media area</td>
<td>(-0.007, P = 0.57 )</td>
<td>(-0.011, P = 0.19 )</td>
</tr>
<tr>
<td>Wider media area</td>
<td>(+0.003, P = 0.77 )</td>
<td>(-0.003, P = 0.69 )</td>
</tr>
<tr>
<td>After the installation of barriers in 1998</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local media area</td>
<td>(+0.018, P = 0.045 )</td>
<td>(+0.022, P = 0.012 )</td>
</tr>
<tr>
<td>Wider media area</td>
<td>(+0.018, P = 0.026 )</td>
<td>(+0.025, P = 0.002 )</td>
</tr>
</tbody>
</table>

*No association is indicated by a Gompertz parameter of zero, an increased hazard of suicide by a negative parameter and a decreased hazard of suicide by a positive parameter.

Deterioration in quality of reporting was observed in two areas—sensationalism and provision of details of the method. In terms of sensationalism, the proportion of reports containing images increased from 5.0% (4/80) in the 1970s to 15.8% (3/19) in the 2000s. The use of sensational language in both the headlines and main text of the article also increased (Supplementary data, Table S2). Regarding details of the method, an increasing proportion of reports contained details of the location on the bridge where the jump occurred.

The inclusion of preventive messages, help and advice, and acknowledgement of difficulties faced by survivors remained extremely uncommon. Only two reports (0.5%) mentioned a helpline, and no report contained preventative messages.
Association of media reports with subsequent suicide rates

Prior to the installation of the safety barriers, there was no evidence of an increased hazard of suicide following local media reports of suicides from Clifton Suspension Bridge (Table 2). Once barriers had been installed, all analyses indicated evidence of a reduced rate of suicide in the period immediately after reports. Similar results were observed when suicides of local and wider media area residents were considered, and when only the poor-quality reports were examined. A sensitivity analysis excluding celebrity deaths did not alter these findings.

Discussion

Main findings of this study

The overall number of reports per suicide or inquest declined markedly over the 34-year study period. Improvement was observed in two of the six individual components of quality—the prominence of reports and acknowledging the complexity of suicide including its link with poor mental health. The other four components of quality either deteriorated or remained extremely poorly reported. No reports contained preventative messages. We found no evidence of local media reports being associated with the subsequent rate of suicides from the Clifton Suspension Bridge.

It is disappointing that there has been little change or deterioration in most components of quality. Some of the improvements in quality, particularly related to the prominence of reports, may in part be attributable to work by the local health organizations (formerly Avon Health Authority and currently Bristol PCT). Since 1995, the local health authority has been writing to all local media organizations concerning the reporting of suicide, highlighting national guidelines and particularly targeting the reports that were felt to contravene national guidance. However, it may also be a reflection of the diminishing journalistic capacity of local media to cover such issues, with falling sales and viewing figures.

Deterioration in some aspects of quality, particularly those related to the use of images and provision of details of the case, may be related to technological advances. This may have made it easier to incorporate images and increase the size of newspapers allowing for longer articles incorporating more details. None of the articles in this study incorporated health promotion messages and only two reports contained helpline numbers. Prevention messages are frequently incorporated into media articles concerning other areas of public health, such as meningococcal meningitis and extreme weather conditions. In addition, very few reports acknowledged the difficulties faced by survivors or provided sympathy.

Although many studies have shown increases in suicides after news reports, this was not observed in this study. There are a number of possible reasons for this. First, the power of our study was relatively limited as we restricted our analysis to suicides from a single site from which there were on average only six deaths per year. Furthermore, local media reports may have limited impact compared with national reports due to the relatively low and declining readership of local papers. The reports had relatively low prominence, i.e. few stories appeared on the front page or on television, and the reports tended to be small. Only two deaths could be classified as ‘celebrity’ deaths, the factor associated with the greatest increased risk of subsequent suicides. Conversely, at least one death involved an individual implicated in a crime, a factor associated with a lower risk of subsequent suicides. Cultural elements may also influence the impact of suicide reports. This is the first UK study examining this issue, and it is possible that the UK population is less susceptible to this type of reporting compared with other populations. The reduction in suicides following a death from the bridge in the period after the safety barriers were installed was an unexpected finding. Given the small number of cases occurring in this period, this finding should be interpreted with caution.

What is already known on this topic

Media reports of suicides may provoke further suicides and influence choice of methods. Guidelines have been developed by several health-care organizations to improve the quality of reporting. There is evidence from several countries including Austria, Australia and Switzerland that media guidelines can lead to improvements in the quantity and quality of reporting over time. The Austrian experience indicates that these improvements in media reporting have been associated with reductions in suicidal behaviour.

What this study adds

To the best of our knowledge, this is the first UK study to examine the impact of media reporting on suicide, focusing on the reporting of deaths from a notorious suicide ‘hot-spot’ and undertaken over a long time period. The continued poor quality of reporting suggests that there is considerable scope for health-care organizations to work proactively with the media to improve the quality of reports on suicides. Routinely incorporating advice in articles concerning suicide, a common practice in other areas of public...
health such as meningitis and extreme weather events, should be strongly encouraged. There was no evidence that local media reporting of suicides from Clifton Suspension Bridge influenced the number of suicides from the bridge between 1974 and 2007.

Limitations of this study
One of the greatest challenges of the study was deriving a measure of quality. A number of studies have examined aspects of the quality of suicide reporting and some have attempted to devise a formula for a single quality indicator. However, it is unclear which specific elements should be included in such a formula and how the different elements should be weighted. Within this study, placing more weight in the overall quality score on the use of sensational language and details of method resulted in a reduction in overall quality. However, equally weighting the six components of the quality score resulted in an improvement over time, due to a greater emphasis on prominence of the reports and acknowledgment of complexity of suicide. This limitation is avoided to some extent by focusing on the individual components of quality.

It is possible that some newspaper reports of suicides were missed. However, these are likely to be small articles or those located in the back pages with minimal impact on the readers. Reports of suicides outside of the 3-day period after the death or inquest were excluded—such as those covering funerals; general discussion pieces; and cases where there was a delay in finding the body, or the person had survived for some time after the fall (although >90% of falls result in immediate death). Some television footage was unavailable for viewing; therefore, judgements about content were made only using a written summary. This study did not examine reports on the radio, internet or from the national media. However, it is likely that suicides reported nationally would also be reported locally. Not all papers in local circulation were included, although the impact of those excluded was considered as minimal.

Conclusions
Over the 34-year study period, reporting of suicides from Clifton Suspension Bridge declined but most aspects of reporting quality remained poor. Routinely incorporating help and advice in reports on suicides should be strongly encouraged. There is considerable scope for improving reporting in line with current guidelines. There was no evidence of an association between reporting and a subsequently increased risk of further suicides.

Supplementary data
Supplementary data are available at the Journal of Public Health online.

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