Newspaper reporting on a cluster of suicides in the UK: a study of article characteristics using PRINTQUAL

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Abstract

Background: Media reporting may influence suicide clusters through imitation or contagion. In 2008 there was extensive national and international newspaper coverage of a cluster of suicides in young people in the Bridgend area of South Wales, U.K.

Aims: To explore the quantity and quality of newspaper reporting during the identified cluster.

Method: Searches were conducted for articles on suicide in Bridgend for six months before and after the defined cluster (26th June 2007 – 16th September 2008). Frequency, quality (using the PRINTQUAL instrument) and sensationalism were examined.

Results: 577 newspaper articles were identified. One in seven articles included the suicide method in the headline, 47.3% referred to earlier suicides and 44% used phrases which guidelines suggest should be avoided. Only 13% included sources of information or advice.

Limitations: Other types of media reporting were excluded. There was no evidence of social media playing a significant role.

Conclusions: A high level of poor quality and sensationalist reporting was found during an on going suicide cluster at the very time when good quality reporting could be considered important. A broad awareness of media guidelines, and expansion and adherence to press codes of practice are required by journalists to ensure ethical reporting.

Key words: suicide cluster, newspaper reporting, guidelines

Introduction

There is growing recognition that suicides may occur in clusters. Evidence suggests that mass clusters, when there is a temporary increase in the total frequency of suicides for a population relative to the time preceding and after the cluster, but with no spatial element, typically follow the reporting of actual or fictional suicides (Haw, Hawton, Niedzwiedz, & Platt, 2013). Notable examples have occurred following the fictional portrayal of suicide or self-harm in T.V. programmes (Hawton et al., 1999) and celebrity suicides (Niederkrotenthaler et al., 2012). This copy-cat/ imitation phenomenon (or Werther effect) is a modelling of suicidal behaviour with the media acting as a vehicle for contagion. Such suicides frequently involve the same method (Hawton & Williams, 2002; Pirkis & Blood, 2001; Sisask & Varnik, 2012; Stack, 2003). Currently the evidence for this effect is strongest in newspaper reporting (Hawton & Williams, 2005; S. Stack, 2005). The impact is most evident within the first two days of a report and over the next week (Bollen & Phillips, 1982), though occasionally lasting longer (Fu & Yip, 2007). The prominence of the story and repetition of the reporting may be particularly influential (Niederkrotenthaler et al., 2010). Identification with the individual in the report or holding them in particular esteem can also influence impact (Pirkis & Nordentoft, 2011). Most importantly, particular population groups may be more vulnerable, especially younger people and those suffering depression (Cheng et al., 2007). The effects of newspaper reporting on suicidal behaviour, however, may not be entirely harmful. In a study of newspaper reporting in Austria, Niederkrotenthaler and colleagues (2010) showed that the reporting of suicidal ideation, not associated with subsequent attempted or completed suicide, may have a protective effect (Papageno effect).

Recent evidence using space-time models suggests that up to 2% of probable suicides may occur in 'point' clusters, with an excessive number of suicides occurring in close temporal and geographical proximity (Larkin & Beautrais, 2012). Temporal-spatial suicide clusters are thought to be two to four times more common among young people (aged 15-24 years) than among other age groups (Niedzwiedz, Haw, Hawton, & Platt, 2014). There has been limited research on media influences in point clusters, though a recent case control study (Gould, Kleiman, Lake, Forman, & Midle, 2014) of 48 suicide clusters in young people in the USA showed that a variety of newspaper report characteristics were associated with the initiation of clusters. This study identified a variety of newspaper report characteristics that were associated with the initiation of the cluster (between first and second deaths), namely, front-page placement, detailed descriptions of the suicidal individual and act and headlines containing the word suicide.

In light of earlier evidence that highlights the important negative associations between reporting and suicide clusters, recommendations for responsible reporting by journalists have been promoted by the WHO (2005), and in many countries by suicide prevention organisations. In the U.K. the Samaritans have produced guidance (2008, revised 2013). Press Codes of Ethics similarly encourage ethical reporting and are able to hold organisations and journalists accountable for their actions (in the UK the *Press Complaints Commission Code of Practice* and the Independent Press Standards Organisation).

We previously conducted a study of national mortality data identifying 'point' suicide clusters in Wales over a ten year period, 2000-2009 (Jones et al., 2013). There was statistical evidence of a single, cluster of ten deaths in young people aged 15 to 34 years (primary cluster) in Bridgend and the surrounding area for the period 27th December 2007 to 19th February

2008. This cluster was smaller, shorter in duration, and predominantly later than the phenomenon that was widely reported in national and international print media in early 2008. No other statistical clusters were identified in Wales over the study period and there was no evidence of previous clusters in the Bridgend area indicating specific community vulnerability. Five other clusters of possible suicides were identified in the temporo-spatial analysis in 15-34 year olds across Wales, 2000-2009, but these were not significant at the 0.05 level (secondary clusters). Of these, two occurred at roughly similar time periods to the primary cluster, 27th December 2007 to 17th March 2008, and included cases from the primary cluster but related to a larger geographical area in the same locality (Jones, et al., 2013). Combining the primary and secondary cases in this area for the period 27th December 2007 to 17th March 2008 extends the size of the cluster to a possible 18 cases. Given the high profile of reporting of deaths in the Bridgend locality, the objectives of our current study were to examine the quantity and quality of newspaper articles relating to the cluster, in particular in relation to guidelines on reporting.

Method

Search strategy

Searches were conducted of two specialist news reports databases (Nexis and Newsbank), the internet search engine Google and individual newspaper websites (including News UK), using the terms of 'suicide', and 'Bridgend'. Original newspaper articles were retrieved either via the internet and individual newspaper subscription, or from local or British library archives. On-line versions can be updated after the original date of print publication or the presentation may change, particularly in relation to the photographs that were originally

published in paper editions (Luce, 2010); when this was evident, the original articles were obtained from library archives. For newspapers accessed via library archives additional hand searching was undertaken. This search included reports during a period of six months prior to the identified commencement of the primary cluster (first death) and six months following the cessation of the secondary clusters (last death) i.e. 26th June 2007 – 16th September 2008.

The newspapers included in the study were as follows:

- Local/ Regional: South Wales Echo; Western Mail; Wales on Sunday
- National broadsheets: The Times; The Guardian; The Independent; The Telegraph; The Observer; The Times on Sunday; The Independent on Sunday; The Sunday Telegraph
- National tabloids: The Daily Mail; The Mirror; The Sun; The Mail on Sunday; The Sunday Mirror; Daily Express; The Daily Star; People; News of the World; The Sunday Express; The Star on Sunday

All newspaper articles and editorials using the terms 'suicide' and 'Bridgend' were included but letters were excluded.

Quality assessment

An instrument designed to assess the quality of reporting of newspaper articles (PRINTQUAL) was used in this study. The development and characteristics of this rating scale has been reported in detail previously (John et al., 2014). In summary, PRINTQUAL was based on the UK Samaritans guidelines for reporting suicide and self-harm (Samaritans, 2008) and on published evidence concerning the relationship between suicide and media

reporting (Hagihara, Tarumi, & Abe, 2007; Hamilton, Metcalfe, & Gunnell, 2011; Hawton & Williams, 2002; Niederkrotenthaler, et al., 2010; S Stack, 2000; S. Stack, 2003; Thom, McKenna, Edwards, O'Brien, & Nakarada-Kordic, 2012). The instrument was initially developed by the research team, and then further advice on the items to be included was sought from an international group of experts in the area of suicide, suicide reporting, and suicide clusters. PRINTQUAL comprises two subscales of quality of print media reporting on suicide: negative/poor, and positive/good. A list of each characteristic is coded (1) or (0) depending upon its presence or absence. The maximum possible poor quality individual item count is 19 and good quality item count is 4. Cronbach's alpha (internal consistency) for the poor quality subscale was 0.96 (excellent) and the good quality subscale 0.69 (acceptable) (John, et al., 2014). Once training of investigators had taken place, the agreement between coders on a sub-set of 30 articles was acceptably high (Cohen's kappa, $k \geq 0.75$) for most individual items (John, et al., 2014) except the use of recommended phrases or phrases to be avoided in reporting, identification of suicide hotspots and the use of explicit details of method used; although agreement for these items was still acceptable ($k \geq 0.60$). The use of sensational language has been identified in other studies as difficult to define (Hamilton, et al., 2011) which may account for the latter score. Although a weighted scoring system has been developed for PRINTQUAL (John, et al., 2014), for the purposes of this study only the frequencies of non-weighted items are described.

Data Extraction

A data extraction sheet was specifically designed for the study, which, in addition to general descriptive items regarding the articles, included all the items from PRINTQUAL. Two

153 investigators (AM, PJ) received training in the use of PRINTQUAL and further instruction on
154 the rating of individual items.

155 *Analysis*

156 Newspaper reporting

157 We calculated the daily frequency of published newspaper reports and plotted them against
158 the incidence of possible suicide deaths for the primary and secondary clusters. We also
159 calculated for each day of the study the number of newspaper reports in the preceding 2
160 and 7 days, highlighting the days when possible suicide deaths for the primary and
161 secondary clusters occurred, since these would be the articles people would be exposed to
162 immediately prior to their deaths and are considered in the literature to be when the impact
163 of reporting is most evident (Bollen & Phillips, 1982).

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165 Items indicating sensationalist reporting or those directly and unequivocally contravening
166 guidelines were specifically recorded. These were identified by the following characteristics:
167 main headline front page with the method specifically mentioned or the word suicide;
168 explicit details of method used (i.e. more detail than just stating the method) within the
169 report; mention of a suicide hotspot; repeated reporting of earlier suicides; technical details
170 of an unusual method which in the context of this study was any method other than
171 hanging; and the number of photographs included in the article. Some of these items of
172 sensationalist reporting were specified within PRINTQUAL. Other items recorded in our
173 study were additional to those in used in PRINTQUAL, for example, the number of
174 photographs in an article was removed from the final PRINTQUAL score due to inclusion in

the scale of other items relating to photographs and, although, the main headline and front page are items in PRINTQUAL they are independent of each other. We calculated counts of PRINTQUAL items by newspaper type and in total. We calculated Pearson's chi-square to explore the association between newspaper type and total poor quality and good quality items.

Results

Reporting quantity and type

We identified 577 newspaper reports concerning suicide in Bridgend during the study period 26th June 2007 to 16th September 2008. A total of 347 (60.1%) articles were in national newspapers (133 in broadsheets, 214 in tabloids), and 230 (39.9%) were in regional newspapers.

Figure 1 displays the number of newspaper articles per day for the duration of the primary and secondary clusters (27th December 2007 to 16th March 2008). The days when deaths occurred, of those aged 15 to 34 years in the primary or secondary clusters, are highlighted with circles. Two deaths occurred on certain days resulting in a total of 15 circles indicating 18 deaths. Days are numbered from the start of the primary cluster (27th December 2007) to protect the identity of individuals. Other dates included relate to actual newspaper reports or press activity. The first report in a regional newspaper describing a cluster of suicides in Bridgend appeared on the 17th of January 2008. The first report in a national newspaper describing a cluster appeared on the 23rd of January following a story released by the Wales News Service (a wire service similar to Reuters) on the 21st and 22nd of January. There was a

large increase in the volume of reporting from the 23rd of January. Figure 2 displays the number of newspaper articles per day in the previous 2 and 7 days for the duration of the primary cluster and secondary clusters, with days when deaths of those aged 15 to 34 years occurred highlighted.

Sensationalist reporting

Table 1 shows the frequency of each poor quality and positive quality items in PRINTQUAL overall. A total of 92 (15.9%) articles mentioned the method in the headline on any page (12 were on the front page) and 223 (38.6%) mentioned suicide in the headline (6 were on the front page). Just over a quarter of articles (155; 26.9%) referred to a suicide hotspot, including the use of terms such as 'suicide town'. Nearly two-thirds (350; 60.7%) of reports included photographs. The number of photographs per report ranged from one to 24; 49 (8.5% of all articles, 14.0% of articles carrying photographs) had more than 4 photographs. Notably, 247 (42.8% of all articles, 70.5% of articles carrying photographs) included a photograph of the deceased. Thirteen (2.3% of all articles, 3.7% of articles carrying photographs) included photographs of the actual scene of the death (e.g. inside house, tree), 35 (6.1% of articles, 10% of articles carrying photographs) of the location (e.g. outside house, street, wood, locality), and 210 (36.4% of all articles, 60.0% of articles carrying photographs) republished photographs from earlier cases. The republishing of photographs of earlier deaths often accounted for the high number of photographs associated with an article.

Reporting quality

The range of poor quality items per article was 0 to 13, with only 4 (0.7%) articles having no poor quality items. The median was 3 and inter-quartile range (IQR) 2 to 6. The range of good quality items was 0 to 4 (median 1, IQR 0 to 1), with almost half of the articles (281, 48.7%) having no good quality items and only 8 (1.4%) having all four. Only 76 (13.2%) articles included sources of information or advice, 53 signposted to the Samaritans, 1 to the National Health Service and a further 22 (3.8%) to other sources of advice.

A total of 347 (60.1%) articles were in national newspapers (133 in broadsheets, 214 in tabloids) and 230 (39.9%) were in regional newspapers. All broadsheet articles combined contained 574 poor quality items out of a possible total of 2527 (22.7%), tabloids 1046/ 4066 (25.7%) and regional newspapers 691/ 4370 (15.8%). There was a small effect but significant association between the type of newspaper and poor quality reporting items x^2 (2) = 130, p=0.0001, Cramer's V= 0.10. All broadsheet articles combined contained 142 good quality items out of a possible total of 532 (26.7%), tabloids 46/ 856 (5.4%) and regional newspapers 206/ 920 (20.0%). There was a moderate effect but significant association between the type of newspaper and poor quality reporting items x^2 (2) = 136, p=0.0001, Cramer's V= 0.24.

Discussion

We have examined the quality of newspaper reporting for the duration of a community 'point cluster' of suicides. Importantly, we have found concerning evidence of poor quality

reporting during a probable suicide cluster; this is the very time when good quality reporting could be considered most essential in the public health response to a cluster. In particular, nearly half of reports referred to earlier suicides, 43% displayed a photograph of the deceased, and 44% used phrases that in the light of research evidence and suicide prevention guidelines should be avoided. Conversely, only 13% included sources of information or advice. There was a high level of sensationalist reporting, indicated by approximately 1 in 7 articles mentioning the method in the headline and extensive republishing of photos from previous suicide deaths.

Many newspapers reported on a large number of probable suicides in young people that occurred in Bridgend in 2007 although there is no statistical evidence of an excess of deaths during that time. The first regional newspaper report of an excess of suicides in Bridgend on the 17th of January 2008 reported on deaths unrelated to the actual identified primary or secondary cluster deaths defined in our statistical analysis [Jones et al 2013] and which occurred several months previously. This article coincided with the fourth primary cluster death (sixth death of primary and secondary clusters combined). The initial four deaths of the identified primary cluster were no more than would normally be expected at this stage, being in keeping with the number of suicide deaths in this age group of 15 to 34 year olds for this time period in previous years (Jones et al, 2013). The subsequent six primary cluster deaths and three secondary cluster deaths were accompanied by a large increase in the volume of reporting from the 23rd January 2008. Only three further deaths (from the secondary cluster) followed a second and larger peak in reporting on the 20th February 2008. This might argue against any possible causal link. However, this second peak in

reporting could have been stimulated by an international press conference held on the 19th of February 2008 to highlight the potentially damaging role of the media and the thematic content of reports in this second peak may therefore have been less likely to maintain any contagion process. We plan, in the future, to conduct a more in-depth thematic analysis of the two peaks of reporting to explore whether any differences in content had an impact on any contagion process

There was no clear relationship between the frequency of newspaper reports and deaths when examining 2 and 7 day rolling periods preceding each suicide. However, in interpreting the influence of volume of reporting it is difficult to account for other factors. For example, intervention and support provided by health and voluntary agencies during the later period of the cluster may have reduced the risk of subsequent deaths. Other studies have found two waves of reporting following suicide deaths (Balazs et al, 2013).

Strengths and Limitations

The focus of this study was on newspaper articles only, rather than other types of reporting, such as radio, television, or internet. This was for a number of reasons. Firstly, the initial reports of a possible suicide cluster among young people in Bridgend occurred in local newspapers, and the main focus of subsequent reporting was in the print media. Secondly, the evidence for possible 'contagion' from media reporting still remains strongest for print media (Hawton & Williams, 2005; Stack, 2005). Studies suggest that television is less likely to produce a 'copycat' effect than newspaper reports (Hawton & Williams, 2005; S. Stack,

2005). This may be because of stricter regulation practices or simply because it is more difficult to study as an exposure. Studies comparing the effects of modes of reporting suggest that the impact of internet reporting is of lower magnitude than the print media (Hagihara, et al., 2007). However, with the huge increase in use of new media since the time of the Bridgend deaths, internet and social media influences might now be more relevant to clustering and contagion of suicide (Daine et al., 2013). There was no evidence of social media being a significant factor in the deaths associated with the Bridgend cluster following a police investigation (Personal Communication with a senior investigating officer, 2015). Robertson, Skegg, Poore, Williams, & Taylor (2012) have recently described a point cluster in adolescents when SMS text messaging and online social networking were possibly an important mode of contagion. The internet, may also be a mechanism for cyber-bullying and encourage self-harm behaviour, although its influence may also be positive by encouraging positive coping and help-seeking (Daine, et al., 2013).

Previous studies have been limited by lacking an appropriate quality measure. We have attempted to minimise this by using an assessment instrument (PRINTQUAL), which was developed on the basis of widely quoted guidelines and other evidence together with a consensus weighting system that was devised in collaboration with experts in the field of suicidology.

Meaning and implications

One approach to support the media in responsible reporting of suicide has been to produce guidelines. Such guidance is an integral part of suicide prevention strategies around the world. Our findings have given further emphasis to the importance of inclusion of particular items in press codes and recommendations on suicide reporting. Gould et al. (2014) found

that front-page placement; detailed descriptions of the suicidal individual and act; and headlines containing the word suicide or a description of the method used were frequently present in articles associated with suicide clusters. In our study of Bridgend suicide reporting, 10% of all regional papers had a report on the front page, 16% mentioned the method in the headline, and 20% included explicit details of the act. Repetitive suicide reporting and reference to 'suicide epidemics' have also been found to influence suicide rates (Niederkrotenthaler, et al., 2010). Over a quarter of articles concerning Bridgend deaths referred to a 'suicide hot-spot', nearly half included reference to earlier suicides, over 40% made links between the suicides and over a third reproduced photographs related to previous local deaths. There is a general consensus that information on help and support needs to be included in press codes and reporting recommendations (Maloney et al., 2013) – only 13% of articles we identified included such information.

It is difficult to demonstrate whether media guidelines improve the quality of reporting (Bohanna & Wang, 2012; Hawton & Williams, 2002). In 2006 the U.K. Press Complaints Commission (PCC) added a clause to the Editors' Code of Practice explicitly recommending that the media avoid excessively detailed reporting of suicide methods. We found little evidence of this advice being followed in 2008, with a wide interpretation of the term 'excessively detailed' as stipulated in the 2006 code. However, reporting guidelines in Australia have been generally well received, although there are difficulties in interpretation of recommendations that require subjective judgements (Machlin et al., 2012). Likewise, in New Zealand, Thom et al (2012) found that adherence to Ministry of Health guidelines has overall resulted in good quality reporting, although as we have found, there was a paucity of articles referencing sources of help or people managing to overcome their suicidal ideation. Suicides by younger people (as in Bridgend), involving violent methods, or occurring in

public places or medical and residential facilities are particularly likely to attract the media's attention (Machlin, Pirkis, & Spittal, 2013), and so it is particularly important that responsible reporting occurs in these circumstances.

Other countries have examined newspaper reporting of suicide by newspaper type (Cheng & Yip, 2012) but there are no studies examining this based in the United Kingdom. Our study suggests that poor quality reporting in relation to suicide may be more of an issue for national newspapers than regional, which has implications for ensuring they are engaged in initiatives to improve the adoption of guidelines. This was particularly in relation to phrases to be avoided, technical details, hotspots, repeated reporting of earlier suicides and use of photographs. The U.K. 2009 edition of the PCC Editors' Codebook highlights the distress that can be caused by insensitive and inappropriate graphic illustrations accompanying media reports of suicide and the re-publication of photographs of people who have died by suicide when reporting other suicide deaths in the same area. The results of our study highlight the prudence of these recommendations. They also commend the inclusion of details of local support organisations and help lines with any coverage of suicide deaths.

In future, researchers should further explore the content of newspaper reporting using qualitative methods. This could include interviewing those with 'near fatal' self-harm at the time of an apparent suicide cluster to explore their understanding of their own behaviour, and the role of internet reporting and social media. Finally, it is worth recognising (and investigating) whether the national media reporting of the apparent cluster in Bridgend had an impact on UK national suicide rates, as arguably the volume of reporting of method could have

contributed to a mass cluster. No evidence of a mass cluster was found at a regional (South Wales) or Wales geographical level (Jones et al, 2013).

Conclusions

We have described the quantity and quality of newspaper reporting during a suicide point cluster of young people in South Wales. There were high levels of sensationalist reporting. This gives credence to suggestions that increased awareness, collaboration, training and ownership by journalists of guidelines for reporting of suicide is required to improve adoption of guidelines and improve the quality of reporting (Bohanna & Wang, 2012). Recommendations on the reporting of suicide should be balanced with an awareness of tackling stigma in relation to suicide and self-harm, signposting sources of help, encouraging help seeking behaviour and educating the public both in an understanding of the complexity of reasons why someone may take their own life and in how to respond to people in crisis.

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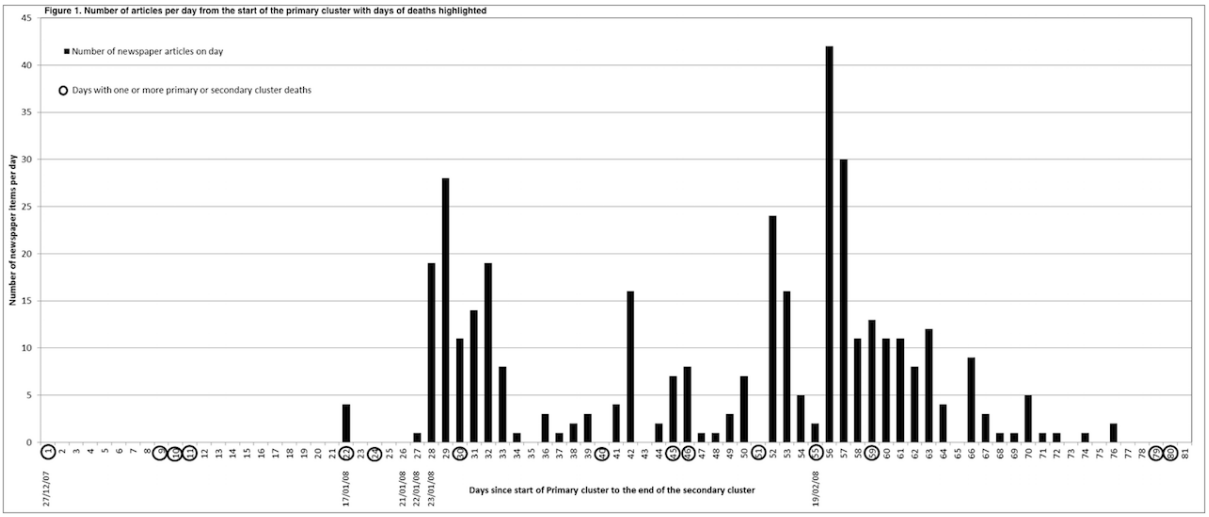
Figure 1. Number of articles per day from the start of the primary cluster with days of deaths highlighted
Number of newspaper articles on day
Days with one or more primary or secondary cluster deaths
Number of newspaper items per day
Days since start of Primary cluster to the end of the secondary cluster
27/12/07
17/01/08
21/01/08
22/01/08
23/01/08
19/02/08

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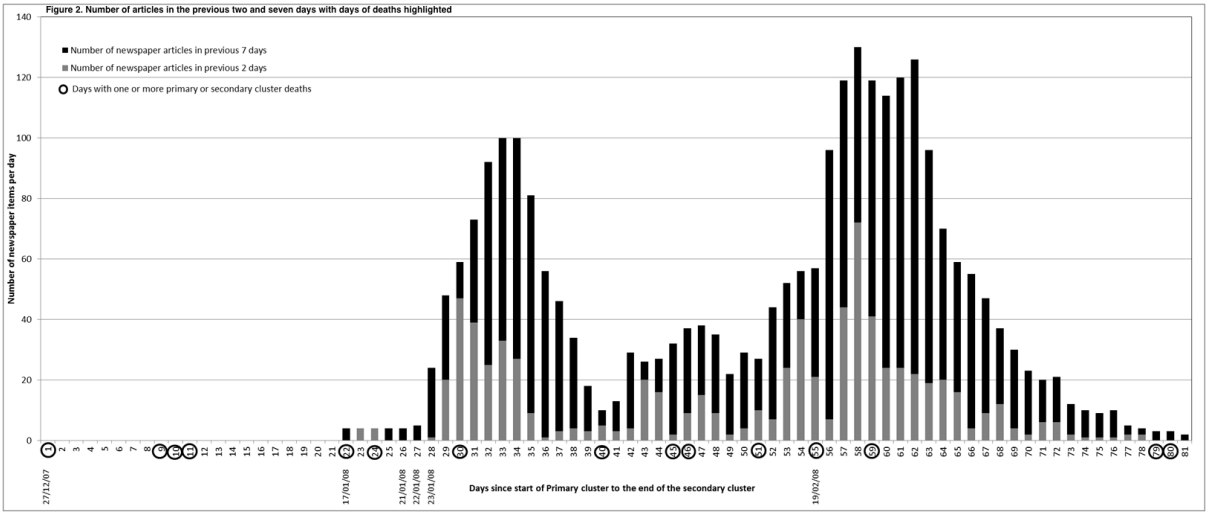
Figure 2. Number of articles in the previous two and seven days with days of deaths highlighted
Number of newspaper articles in previous 7 days
Number of newspaper articles in previous 2 days
Days with one or more primary or secondary cluster deaths
Number of newspaper items per day
Days since start of Primary cluster to the end of the secondary cluster
27/12/07
17/01/08
21/01/08
22/01/08
23/01/08
19/02/08

Table 1: Frequency of each item in PRINTQUAL in total and by newspaper type

Poor quality item ***Good quality item***	FREQUENCY PRESENT All types (%) n=577	Broadsheet National (%) n=133	Tabloid National (%) n=214	Regional (%) n=230	Pearson chi-square (X^2, p), degrees of freedom= 2
Is the article on the front page?	42 (7.3)	9 (6.8)	10 (4.7)	23 (10.0)	4.7, p= 0.09
Is it the main headline on the front page?	26 (4.5)	4 (3.0)	5 (2.3)	17 (7.4)	7.5, p=0.02
Is the method mentioned in the headline?	92 (15.9)	16 (12.0)	36 (16.8)	40 (17.4)	2.0, p= 0.37
Does the article cover over 50% of the page?	195 (33.8)	47 (35.3)	74 (34.6)	74 (32.2)	0.5, p= 0.80
Is it on page 3?	32 (5.5)	8 (6.0)	2 (0.9)	22 (9.6)	15.8, p=0.00
Does the article use phrases to be avoided as listed in Samaritans guidelines?	250 (43.3)	68 (51.1)	117 (54.7)	65 (28.3)	35.8, p=0.00
Are explicit or technical details of the method described?	114 (19.8)	36 (27.1)	62 (29.0)	16 (7.0)	0.2, p=0.00
Are technical details of an unusual method for the locality described?	5 (0.9)	5 (3.8)	0 (0.0)	0 (0.0)	-
Are the contents of a suicide note described?	34 (5.9)	10 (7.5)	13 (6.1)	11 (4.8)	1.2, p=0.56
Does it mention or refer to a suicide hotspot?	155 (26.9)	41 (30.8)	102 (47.7)	12 (5.2)	103.0, p=0.00
Does it report positive outcomes from the death?	9 (1.6)	2 (1.5)	7 (3.3)	0 (0.0)	-
Is the cause of the suicide attributed to a single factor?	127 (22)	30 (22.6)	63 (29.4)	34 (14.8)	13.9, p=0.00
Is there repeated reporting of earlier suicides in the article?	273 (47.3)	70 (52.6)	130 (60.7)	73 (31.7))	15.7, p=0.00
Does the article report the person knew previous suicides or that the timing implies a link?	240 (41.6)	61 (45.9)	106 (49.5)	73 (31.7)	39.4, p=0.00
Does the article highlight community expressions of grief?	201 (34.8)	50 (37.6)	86 (40.2)	65 (28.3)	7.5, p=0.02
Does the article include interviews with the bereaved?	214 (37.1)	45 (33.8)	95 (44.4)	74 (32.2)	7.9, p=0.02
Does the article include photographs of the scene, location or method?	46 (8.0)	18 (13.5)	17 (7.9)	11 (4.8)	8.8, p=0.01
Does the article include a photograph of the deceased?	247 (42.8)	49 (36.8)	117 (54.7)	81 (35.2)	19.7, p=0.00
Does the article mention a celebrity suicide?	9 (1.6)	5 (3.8)	4 (1.9)	0 (0.0)	-
Does the article include recommended language as based on guidelines?	210 (36.4)	60 (45.1)	44 (20.6)	106 (46.1)	36.9, p=0.00
Does article describe complex or multi-factorial causes of the death?	60 (10.4)	27 (20.3)	16 (7.5)	17 (7.4)	18.1, p=0.00
Does it include sources of information or advice?	75 (13.2)	19 (14.3)	26 (12.1)	30 (13.0)	0.3, p=0.85
Does it take the opportunity to educate the reader?	109 (18.9)	36 (27.1)	20 (9.3)	53 (23.0)	20.4, p=0.00

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Author biographies

Ann John, MBBS, MD, is an Associate Professor of Public Mental Health at Swansea University Medical School. She is a public health physician with a research focus on suicidal behaviors and the translation of evidence into policy and practice.

Keith Hawton, FMedSci, is Professor of Psychiatry and Director of the Centre for Suicide Research at the Centre for Suicide Research, University of Oxford. His team has been involved in a wide range of studies related to epidemiology, causes, prevention and treatment of suicidal behaviours, including media influences.

David Gunnell, MB, ChB, DSc, is Professor of Epidemiology at the University of Bristol, UK. He is a public health physician and epidemiologist with a longstanding research interest in the etiology and prevention of suicide and in improving population mental health

Keith Lloyd, MRCPsych, MD, is Dean and Head of Swansea University Medical School and Professor of Psychiatry. His research interests are psychiatric epidemiology and the management of mental disorders in primary care and community settings especially suicide and self harm,

Jonathan Scourfield, PhD, is Professor of Social Work at Cardiff University and Deputy Head of the School of Social Sciences. He has conducted a range of studies on the social context of suicide and self-harm and is the co-author of *Understanding Suicide: A Sociological Autopsy* (Palgrave Macmillan, 2011)

Phillip Jones, PhD, was formerly a researcher in the Population Psychiatry, Suicide and Informatics group at Swansea University Medical School.

Amanda Marchant, MSc, is a researcher in the Population Psychiatry, Suicide and Informatics group at Swansea University Medical School.

Professor Stephen Platt, PhD, was Professor of Health Policy Research in the Centre for Population Health Sciences at the University of Edinburgh. For over 30 years he has maintained a research interest in epidemiological, social and cultural aspects of suicidal behavior.

Ann Luce, PhD, is a journalist-turned academic and is the author of a forthcoming book on this topic. She is also the author of several book chapters and journal articles about disability in the media and representations of midwifery and the media.

Sian Price, MPH, is a public health specialist and head of the Public Health Wales Observatory Evidence Service.

Mick Dennis, MRCPsych, is Professor of Psychiatry for Older People at Swansea University Medical School, UK, and was previously a Consultant Liaison Psychiatrist. He has been involved in many areas of mental health research, particularly the epidemiology of suicide and self-harm, and social and psychological factors in suicidal behaviors.