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

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21 **Abstract**

22 **Background:** Media reporting may influence suicide clusters through imitation or contagion.

23 In 2008 there was extensive national and international newspaper coverage of a cluster of
24 suicides in young people in the Bridgend area of South Wales, U.K.

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

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

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

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

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

39 Key words: suicide cluster, newspaper reporting, guidelines

40

41

42 Introduction

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

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

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

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

87 2008. This cluster was smaller, shorter in duration, and predominantly later than the
88 phenomenon that was widely reported in national and international print media in early
89 2008. No other statistical clusters were identified in Wales over the study period and there
90 was no evidence of previous clusters in the Bridgend area indicating specific community
91 vulnerability. Five other clusters of possible suicides were identified in the temporo-spatial
92 analysis in 15-34 year olds across Wales, 2000-2009, but these were not significant at the
93 0.05 level (secondary clusters). Of these, two occurred at roughly similar time periods to the
94 primary cluster, 27th December 2007 to 17th March 2008, and included cases from the
95 primary cluster but related to a larger geographical area in the same locality (Jones, et al.,
96 2013). Combining the primary and secondary cases in this area for the period 27th
97 December 2007 to 17th March 2008 extends the size of the cluster to a possible 18 cases.
98 Given the high profile of reporting of deaths in the Bridgend locality, the objectives of our
99 current study were to examine the quantity and quality of newspaper articles relating to the
100 cluster, in particular in relation to guidelines on reporting.

101

102 **Method**

103 *Search strategy*

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

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

116 The newspapers included in the study were as follows:

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

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

125 *Quality assessment*

126 An instrument designed to assess the quality of reporting of newspaper articles
127 (PRINTQUAL) was used in this study. The development and characteristics of this rating scale
128 has been reported in detail previously (John et al., 2014). In summary, PRINTQUAL was
129 based on the UK Samaritans guidelines for reporting suicide and self-harm (Samaritans,
130 2008) and on published evidence concerning the relationship between suicide and media

131 reporting (Hagihara, Tarumi, & Abe, 2007; Hamilton, Metcalfe, & Gunnell, 2011; Hawton &
132 Williams, 2002; Niederkrotenthaler, et al., 2010; S Stack, 2000; S. Stack, 2003; Thom,
133 McKenna, Edwards, O'Brien, & Nakarada-Kordic, 2012). The instrument was initially
134 developed by the research team, and then further advice on the items to be included was
135 sought from an international group of experts in the area of suicide, suicide reporting, and
136 suicide clusters. PRINTQUAL comprises two subscales of quality of print media reporting on
137 suicide: negative/poor, and positive/good. A list of each characteristic is coded (1) or (0)
138 depending upon its presence or absence. The maximum possible poor quality individual
139 item count is 19 and good quality item count is 4. Cronbach's alpha (internal consistency) for
140 the poor quality subscale was 0.96 (excellent) and the good quality subscale 0.69
141 (acceptable) (John, et al., 2014). Once training of investigators had taken place, the
142 agreement between coders on a sub-set of 30 articles was acceptably high (Cohen's kappa,
143 $k \geq 0.75$) for most individual items (John, et al., 2014) except the use of recommended
144 phrases or phrases to be avoided in reporting, identification of suicide hotspots and the use
145 of explicit details of method used; although agreement for these items was still acceptable
146 ($k \geq 0.60$). The use of sensational language has been identified in other studies as difficult to
147 define (Hamilton, et al., 2011) which may account for the latter score. Although a weighted
148 scoring system has been developed for PRINTQUAL (John, et al., 2014), for the purposes of
149 this study only the frequencies of non-weighted items are described.

150 *Data Extraction*

151 A data extraction sheet was specifically designed for the study, which, in addition to general
152 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).

164

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

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

180

181 **Results**

182 *Reporting quantity and type*

183 We identified 577 newspaper reports concerning suicide in Bridgend during the study period
184 26th June 2007 to 16th September 2008. A total of 347 (60.1%) articles were in national
185 newspapers (133 in broadsheets, 214 in tabloids), and 230 (39.9%) were in regional
186 newspapers.

187 Figure 1 displays the number of newspaper articles per day for the duration of the primary
188 and secondary clusters (27th December 2007 to 16th March 2008). The days when deaths
189 occurred, of those aged 15 to 34 years in the primary or secondary clusters, are highlighted
190 with circles. Two deaths occurred on certain days resulting in a total of 15 circles indicating
191 18 deaths. Days are numbered from the start of the primary cluster (27th December 2007) to
192 protect the identity of individuals. Other dates included relate to actual newspaper reports
193 or press activity. The first report in a regional newspaper describing a cluster of suicides in
194 Bridgend appeared on the 17th of January 2008. The first report in a national newspaper
195 describing a cluster appeared on the 23rd of January following a story released by the Wales
196 News Service (a wire service similar to Reuters) on the 21st and 22nd of January. There was a

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

201 *Sensationalist reporting*

202 Table 1 shows the frequency of each poor quality and positive quality items in PRINTQUAL
203 overall. A total of 92 (15.9%) articles mentioned the method in the headline on any page (12
204 were on the front page) and 223 (38.6%) mentioned suicide in the headline (6 were on the
205 front page). Just over a quarter of articles (155; 26.9%) referred to a suicide hotspot,
206 including the use of terms such as 'suicide town'. Nearly two-thirds (350; 60.7%) of reports
207 included photographs. The number of photographs per report ranged from one to 24; 49
208 (8.5% of all articles, 14.0% of articles carrying photographs) had more than 4 photographs.
209 Notably, 247 (42.8% of all articles, 70.5% of articles carrying photographs) included a
210 photograph of the deceased. Thirteen (2.3% of all articles, 3.7% of articles carrying
211 photographs) included photographs of the actual scene of the death (e.g. inside house,
212 tree), 35 (6.1% of articles, 10% of articles carrying photographs) of the location (e.g. outside
213 house, street, wood, locality), and 210 (36.4% of all articles, 60.0% of articles carrying
214 photographs) republished photographs from earlier cases. The republishing of photographs
215 of earlier deaths often accounted for the high number of photographs associated with an
216 article.

217

218

219 *Reporting quality*

220 The range of poor quality items per article was 0 to 13, with only 4 (0.7%) articles having no
221 poor quality items. The median was 3 and inter-quartile range (IQR) 2 to 6. The range of
222 good quality items was 0 to 4 (median 1, IQR 0 to 1), with almost half of the articles (281,
223 48.7%) having no good quality items and only 8 (1.4%) having all four. Only 76 (13.2%)
224 articles included sources of information or advice, 53 signposted to the Samaritans, 1 to the
225 National Health Service and a further 22 (3.8%) to other sources of advice.

226

227 A total of 347 (60.1%) articles were in national newspapers (133 in broadsheets, 214 in
228 tabloids) and 230 (39.9%) were in regional newspapers. All broadsheet articles combined
229 contained 574 poor quality items out of a possible total of 2527 (22.7%), tabloids 1046/
230 4066 (25.7%) and regional newspapers 691/ 4370 (15.8%). There was a small effect but
231 significant association between the type of newspaper and poor quality reporting items χ^2
232 (2) = 130, $p=0.0001$, Cramer's V= 0.10. All broadsheet articles combined contained 142 good
233 quality items out of a possible total of 532 (26.7%), tabloids 46/ 856 (5.4%) and regional
234 newspapers 206/ 920 (20.0%). There was a moderate effect but significant association
235 between the type of newspaper and poor quality reporting items χ^2 (2) = 136, $p=0.0001$,
236 Cramer's V= 0.24.

237

238 **Discussion**

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

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

249

250 Many newspapers reported on a large number of probable suicides in young people that
251 occurred in Bridgend in 2007 although there is no statistical evidence of an excess of deaths
252 during that time. The first regional newspaper report of an excess of suicides in Bridgend on
253 the 17th of January 2008 reported on deaths unrelated to the actual identified primary or
254 secondary cluster deaths defined in our statistical analysis [Jones et al 2013] and which
255 occurred several months previously. This article coincided with the fourth primary cluster
256 death (sixth death of primary and secondary clusters combined). The initial four deaths of
257 the identified primary cluster were no more than would normally be expected at this stage,
258 being in keeping with the number of suicide deaths in this age group of 15 to 34 year olds
259 for this time period in previous years (Jones et al, 2013). The subsequent six primary cluster
260 deaths and three secondary cluster deaths were accompanied by a large increase in the
261 volume of reporting from the 23rd January 2008. Only three further deaths (from the
262 secondary cluster) followed a second and larger peak in reporting on the 20th February
263 2008. This might argue against any possible causal link. However, this second peak in

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

270

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

277

278 *Strengths and Limitations*

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

286 2005). This may be because of stricter regulation practices or simply because it is more
287 difficult to study as an exposure. Studies comparing the effects of modes of reporting
288 suggest that the impact of internet reporting is of lower magnitude than the print media
289 (Hagihara, et al., 2007). However, with the huge increase in use of new media since the time
290 of the Bridgend deaths, internet and social media influences might now be more relevant to
291 clustering and contagion of suicide (Daine et al., 2013). There was no evidence of social
292 media being a significant factor in the deaths associated with the Bridgend cluster following
293 a police investigation (Personal Communication with a senior investigating officer, 2015).
294 Robertson, Skegg, Poore, Williams, & Taylor (2012) have recently described a point cluster in
295 adolescents when SMS text messaging and online social networking were possibly an
296 important mode of contagion. The internet, may also be a mechanism for cyber-bullying and
297 encourage self-harm behaviour, although its influence may also be positive by encouraging
298 positive coping and help-seeking (Daine, et al., 2013).

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

304 *Meaning and implications*

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

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

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

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

336

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

349

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

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

358

359 **Conclusions**

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

369

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375 cluster of suicides in the Bridgend area during the relevant period.

376

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378 Health Research (England) Senior Investigators.

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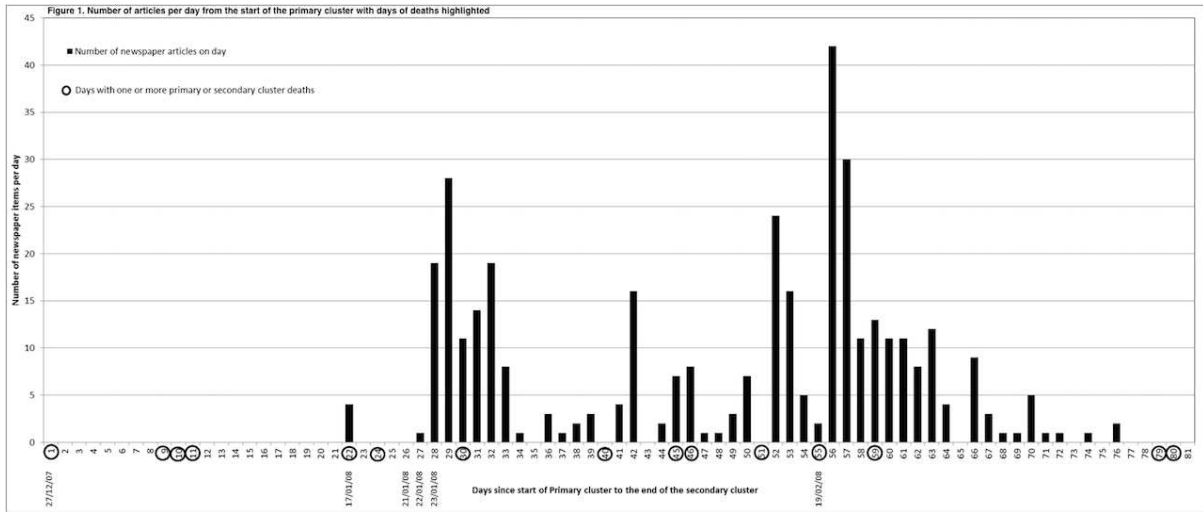
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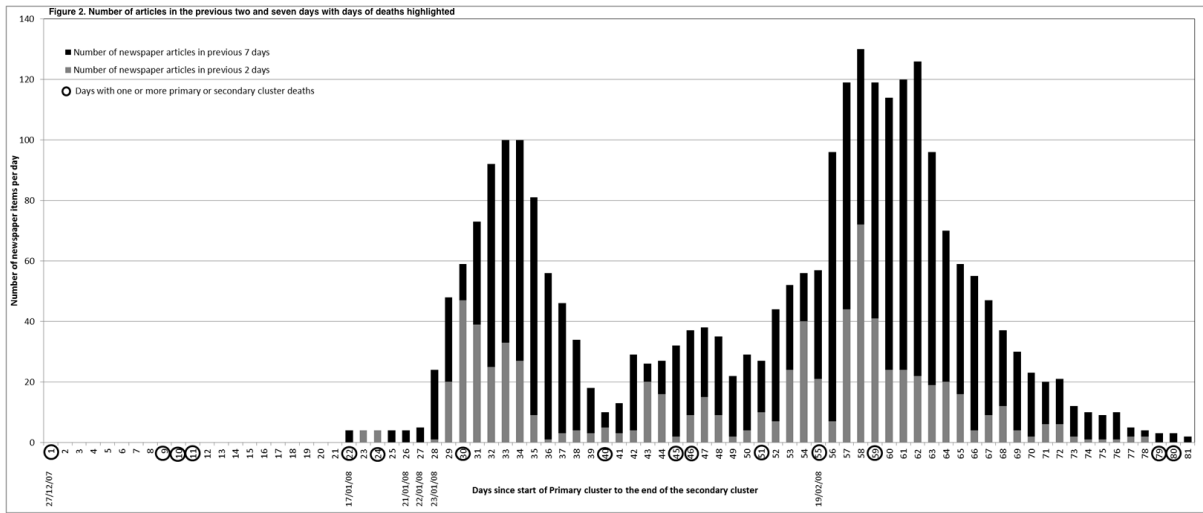


Table 1: Frequency of each item in PRINTQUAL in total and by newspaper type

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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482 Author biographies

483 Ann John, MBBS, MD, is an Associate Professor of Public Mental Health at Swansea University
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485 translation of evidence into policy and practice.

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489 studies related to epidemiology, causes, prevention and treatment of suicidal behaviours, including
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497 Keith Lloyd, MRCPsych, MD, is Dean and Head of Swansea University Medical School and Professor
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501 Jonathan Scourfield, PhD, is Professor of Social Work at Cardiff University and Deputy Head of the
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506 Phillip Jones, PhD, was formerly a researcher in the Population Psychiatry, Suicide and Informatics
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516 Ann Luce, PhD, is a journalist-turned academic and is the author of a forthcoming book on this topic.
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520 Sian Price, MPH, is a public health specialist and head of the Public Health Wales Observatory
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523 Mick Dennis, MRCPsych, is Professor of Psychiatry for Older People at Swansea University Medical
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525 of mental health research, particularly the epidemiology of suicide and self-harm, and social and
526 psychological factors in suicidal behaviors.

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