
PROGRAM EVALUATION UNIT



THE IMPACT OF MEDIA REPORTING OF SUICIDE ON ACTUAL SUICIDAL BEHAVIOUR

**Final Report
to the
Australian Rotary Health Research Fund**

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June 2005

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Executive summary

Background

Internationally, over 40 studies have been conducted that inform the question of whether non-fictional media portrayals of suicide lead to imitation. The majority of these studies provide supportive evidence for a causal relationship between media reporting of suicide and actual suicidal behaviour. However, few of these studies have been conducted in Australia, few have considered attempted suicide as well as completed suicide, and few have considered whether the nature and quality of reporting mediates the overall observed effect.^{1, 2}

Method

The current project overcame these issues by making use of data from a previous project conducted by the investigators, known as the Media Monitoring Project.^{3, 4} The Media Monitoring Project provided a comprehensive, year-long picture of reporting of suicide in the Australian print and broadcast media, explicitly describing stories in terms of their nature and quality. Through three separate studies, the current project combined these data on media reporting of suicide with Australian data on completed and attempted suicide rates, with the aim of determining whether there was an association between media reporting of suicide and actual suicidal behaviour. Specifically, it considered whether stories of a particular type or level of quality were associated with differential increases in actual rates of completed and attempted suicide.

Key findings

Study 1 examined the relationship between media reporting of suicide and actual completed suicide, using all 4,813 media items on suicide retrieved during the 12-month Media Monitoring Project and deaths data for the same period provided by the Australian Bureau of Statistics (ABS). It found that media items were more likely to be associated with increases in both male and female suicide rates if they occurred in the context of multiple other reports on suicide (as opposed to occurring in isolation), if they were broadcast on television (as opposed to other media), and if they were about completed suicide (as opposed to attempted suicide or suicidal ideation). Different item content appeared to be influential for males and females, with an increase in male suicide rates being associated with items about an individual's experience of suicide and opinion pieces, and an increase in female suicide rates being associated with items about mass suicide or murder suicide. Surprisingly, item prominence and quality were not differentially associated with increases in male or female suicide rates.

Study 2 examined the relationship between media reporting of suicide and actual suicide attempts, using a subset of 229 media items from the Media Monitoring Project that had been rated for quality and could be linked to pre- and post- data on hospital admissions for suicide attempts provided by the Australian Institute of Health and Welfare (AIHW). The study found that although a greater number of suicide attempts occurred in the two weeks after a media item was released than in the two weeks before, it was difficult to discern the characteristics of media items that might be positively or negatively predictive of this pattern. Indeed, the single key media variable that was associated with suicide attempts related to item content – media items about an individual's experience of suicidal behaviour were less likely to be associated with an increase in the number of hospitalisations for male suicide attempts in the period immediately following the item.

Study 3 examined the relationship between media reporting of suicide and actual suicide attempts, using a subset of Victorian and national media items retrieved during the Media Monitoring Project and data on presentations to emergency departments for suicide attempts during the same period (provided by the Victorian Department of Human Services (DHS)). The suicide attempt data were provided for each half-monthly period, and the media data were

organised into equivalent periods, with lags of 0-14 days. The study found a moderate correlation between the total number of items about suicide and the number of presentations to emergency departments for suicide attempts. The correlation increased in strength as a function of a decreasing lag between the period of media reporting and the period of suicide attempts, up to a six day lag.

Conclusions

Despite some data limitations, the current project furthers knowledge about the impact of media reporting of suicide on actual suicidal behaviour. Taken together, the three studies suggest that media reporting of suicide can lead to 'copycat' behaviours. The influence may be particularly significant when the public is confronted with multiple items on suicide, via particularly accessible media. Certain characteristics of media items – such as the item's content and focus – may mediate this effect, but these factors may vary for males and females, and may bear different relationships to fatal and non-fatal suicide attempts. The current project did not find item quality to be predictive of increased rates of suicidal behaviour, this may have been because of the relatively 'blunt' measure of quality that was used, and the fact that only a relatively small subset of items were rated for quality.

Clearly, the relationship between media reporting of suicide and actual suicidal behaviour is complex. Further work is needed which considers not only the characteristics of media items, but also the characteristics of individuals who extract meaning from these items. In the meantime, there is a need to err on the side of caution. Mental health professionals and suicide experts should collaborate with media professionals to try to balance 'public interest' against the risk of harm, and to promote opportunities for education. Sensitive reporting of suicide that does not glorify or romanticise it and does not provide visual detail of the exact method is preferable, as are depictions that stress consequences for others, potential hazards of particular methods, and sources of help for vulnerable individuals.

Chapter 1: Introduction

Background

The question of whether non-fictional media portrayals of suicide lead to imitation has been hotly debated for years. Until the 1960s, the debate was based on impressions. Since then, however, a number of international studies have examined the relationships between media portrayals of suicide and subsequent suicidal behaviours. The majority of these have been large-scale ecological studies assessing the relationship between newspaper reports of suicide and actual suicides, the first conducted by Phillips.⁵ Using a quasi-experimental design, Phillips examined the frequency of suicide in months in which a front-page suicide article appeared in the US press between 1947 and 1968, and compared this with the frequency in corresponding months in which no such article appeared. Adjusting for seasonal effects and changing trends in this way, he found a significant increase in the number after 26 front-page articles, and a decrease after seven of them. The effect increased as a function of the amount of publicity given to the story, was particularly evident for young people, and was strongest in the geographical areas where the suicide story was published.

Since Phillips' study, over forty other similar studies have been conducted internationally. Most have focussed on newspaper reporting of suicide, but some have also considered portrayal of suicide on television news and in non-fiction books. Pirkis and Blood systematically reviewed these studies, examining the evidence for a causal relationship between portrayal of suicide in the given media and actual suicidal behaviour.^{1,2} They concluded that the body of evidence suggested that a causal association existed, on the basis of Hill's criteria for causality.⁶ Specifically, the association between media coverage of suicide and actual suicides satisfied the criteria of: (a) consistency (reliably observed, regardless of study design and population sampled); (b) strength (statistically significant, and showing evidence of a dose-response effect such that greater exposure to the media coverage of suicide equated to greater increases in suicide rates); (c) temporality (making chronological sense, in that the media coverage of suicide occurred before the actual suicides); specificity (clear, such that a substantial proportion of people who experienced the outcome of suicide had been exposed to media coverage of suicide); and (d) coherence (in line with known facts concerning suicidal behaviour, in that it can be modelled).

Despite concluding that the evidence pointed to a causal relationship, Pirkis and Blood noted that there were certain methodological problems with these studies. In particular, most were relatively poor at describing the nature and quality of the media stories they examined, assuming that all reports were bad and all of their impacts were negative. The majority considered completed suicide, rather than attempted suicide. Their generalisability to the Australian setting was questionable, since only one comparatively small study was conducted locally.⁷

The current project

The current project overcame these issues by making use of data from a previous project conducted by the investigators, known as the Media Monitoring Project.^{3,4} The Media Monitoring Project provided a comprehensive, year-long picture of reporting of suicide in the Australian print and broadcast media, explicitly describing stories in terms of their nature and quality. The current project combined these data on media reporting of suicide with Australian data on completed and attempted suicide rates, with the aim of determining whether there was an association between media reporting of suicide and actual suicidal behaviour. Specifically, it considered whether stories of a particular type or level of quality were associated with differential increases in actual rates of completed and attempted suicide.

The project was conceptualised as three studies, each of which examined the relationship between media reporting of suicide and a particular type of suicidal behaviour. Study 1

considered completed suicide, Study 2 considered hospital admissions for suicide attempts, and Study 3 considered emergency department presentations for suicide attempts.

Structure of this report

The remainder of this report describes the way in which the project was conducted, its findings and their relevance. Chapter 2 provides an overview of the project's design and method. Chapters 3-5 describe each of the three component studies in depth, providing detail of the specific data that were available, the way in which these data were handled, and the findings that emerged. Chapter 6 draws together the findings from the three studies, discussing their implications for media reporting.

Chapter 2: Overall project design and methodology

Overview

This project examined the impact of media reporting of suicide on actual suicidal behaviour, giving particular consideration to whether stories of a particular type or level of quality were associated with differential increases in actual completed and attempted suicide rates. The project combined data on media reporting of suicide from the Media Monitoring Project^{3, 4} with data on completed and attempted suicide rates from three different sources.

Data on media reporting of suicide

Between 1 March 2000 and 28 February 2001, the Media Monitoring Project retrieved items on suicide and mental health/illness appearing in newspapers on radio and television.

A list of suicide-related search terms was provided to Media Monitors, a media retrieval service that identified relevant newspaper, radio and television items for the Media Monitoring Project. Trained readers, listeners and viewers scanned selected media, retrieving items on a daily basis. Media Monitors scanned all national metropolitan daily newspapers (n=15), as well as major suburban and regional newspapers in all states outside Victoria (n=23), and all suburban and regional newspapers in Victoria (n=146). Media Monitors retrieved broadcast items all radio stations (n=225) and television stations (n=106) throughout Australia, concentrating on news and current affairs shows only.

This search strategy yielded 4,813 items on suicide: 1,162 (24.1%) were newspaper items; 3,043 (63.2%) were radio items, and 608 (12.6%) were television items.

Three trained coders extracted identifying and descriptive information for each item. For newspaper items, data were extracted on:

- Item page number:
 - Front page
 - Not front page
- Item type
 - News
 - Feature
 - Editorial
 - Other.

For radio and television items, data were extracted on:

- Item time
 - Morning
 - Afternoon
 - Evening
- Item duration
 - <2 minutes
 - 2-4 minutes
 - >4 minutes)

- Item type:
 - News
 - Current affairs
 - Other.

For all items, data were extracted on:

- Item date
- Item focus
 - Completed suicide
 - Attempted suicide
 - Suicidal ideation
- Item content
 - Individual's experience (of suicidal behaviour)
 - Statistical overview of suicide
 - Suicide research initiative
 - Suicide policy/program initiative
 - Suicide opinion piece
 - Mass suicide
 - Murder-suicide
 - Media coverage of suicide (i.e., discussion of issues to do with media reporting)
 - Legal issues regarding suicide
 - Causes of suicide
 - Other
- Any suicide method referred to in the item
 - Hanging
 - Ingestion of substances
 - Gas
 - Firearm
 - High impact method
 - Other
 - Not applicable.

Five hundred and four items (just over 10%) were randomly selected to be rated by the coders for quality. Quality ratings were made according to a set of nine dimensions. These dimensions operationalised criteria in *Achieving the Balance*,⁸ a kit aimed at promoting awareness of issues related to suicide and mental health/illness among media professionals. Each dimension elicited a yes/no (or don't know or not applicable) response, which enabled a total quality score between 0 (poor quality) and 100 (good quality). The dimensions were as follows:

- Does the item have any examples of inappropriate language?
- Is the item appropriately located?
- Is the word 'suicide' used in the headline?
- Is a photograph/diagram or footage depicting the suicide scene, precise location or method used with the item?
- Is there a detailed discussion of the method used?
- Is there reference to the fact that the person who died by suicide was a celebrity?

- Is suicide portrayed as ‘merely a social phenomenon’ as opposed to ‘being related to mental disorder’?
- Does the item provide information on help services?
- Are the bereaved interviewed?

More detail on the item retrieval and data extraction from the Media Monitoring Project is available elsewhere.^{3,4}

Data on actual suicidal behaviour

Three types of data on rates of completed and attempted suicide were available to the project:

- Study 1 utilised national data on completed suicide from the Australian Bureau of Statistics (ABS);
- Study 2 relied on national data on hospital admissions for suicide attempts from the Australian Institute of Health and Welfare (AIHW); and
- Study 3 drew on Victorian data on emergency department presentations for suicide attempts from the Victorian Emergency Minimum Dataset (VEMD) held by the Department of Human Services (DHS).

The data available in each of these datasets, and the way in which the data were aggregated, are described in more detail in Chapters 3-5.

Combining data on media reporting of suicide with data on actual suicidal behaviour

In order to combine the data on media reporting of suicide with the data on actual suicidal behaviour, it was necessary to know the date and geographical location of each event (i.e., each media item and each completed or attempted suicide). Data were available on the date of each media item and each completed or attempted suicide, and data on the geographical location of each completed or attempted suicide were also available. However, information on the geographical location of each media item (i.e., its reach) was not available from existing sources.

Several different resources were used to identify the geographical reach of each of the sources from which the media items were retrieved, in order to ensure that the final data on geographical reach was as accurate and comprehensive as possible:

- In the case of newspapers, the Australian Media Guide⁹ provided a list of the towns and suburbs covered by suburban and regional papers, and indicated statewide or national circulation for metropolitan dailies. Supplementary and/or confirmatory information was sought from websites, or directly from publishers, as necessary. The geographical area (listed as national or statewide, or as town and suburb names) was entered into a spreadsheet and then converted to postcodes, using data supplied by Australia Post. Each postcode was then converted to the corresponding Statistical Local Area (SLA) from the 2001 census, using information provided by the Australian Bureau of Statistics.
- In the case of radio and television sources, data were primarily obtained from the Australian Broadcasting Authority (ABA) and the Australian Broadcasting Corporation (ABC) websites, with supplementary and confirmatory information sought from the Australian Media Guide,⁹ and direct telephone or email contact with individual broadcasting organisations and with OzTam (the official broadcast ratings organisation). For commercial radio and television stations, information on geographical coverage was obtained from the website of the ABA, which provided the licence area of each station in terms of 2001 SLA boundaries. For government radio and television stations, maps of the coverage area of each transmission site were downloaded from the ABC website, and

the geographical areas on each map were then transcribed into a spreadsheet (listed as national or statewide, or as town and suburb names). These data were converted to postcodes and then into 2001 SLAs in the same manner as was used for newspapers.

Three separate databases were created, each of which combined the data on media items with one of the sets of data on suicidal behaviour (completed suicide, hospital admissions for suicide attempts, and emergency department presentations for suicide attempts). Each database underpinned one of the three studies that comprised the overall project. The organisations responsible for the three sets of data on suicidal behaviour were governed by different requirements regarding the level of data which they could provide, which had implications for the final structure of each of the three databases. The specifics of each database are described in Chapters 3-5, as relevant.

Data analysis

Three separate analyses were undertaken to examine the relationship between reporting of suicide and actual completed/attempted suicide. The level of aggregation of the databases had implications for the specific analysis undertaken in each study, so further detail about the analyses is provided in Chapters 3-5, as relevant.

Chapter 3: Study 1 – The relationship between media reporting of suicide and completed suicide

Method

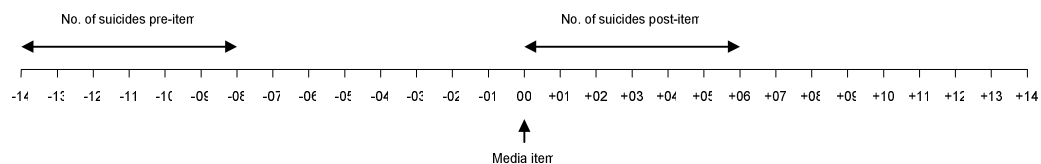
The Australian Bureau of Statistics (ABS) provided the study team with de-identified, individual level data on all suicides that had occurred anywhere in Australia during the period of the Media Monitoring Project (1 March 2000 to 28 February 2001). The date of death was available for each suicide. The geographical location of each suicide was also provided, defined by SLA boundaries referenced to the year prior to the suicide. These SLA boundaries were converted to 2001 boundaries, in order to ensure consistency with the media data (see below).

As noted in Chapter 2, the date of each media item concerning suicide in the Media Monitoring Project was available in the original dataset, and the reach or geographical location of each item was identified by a complex process that yielded a series of 2001 SLAs for 4,635 (96%) of the original 4,813 media items on suicide. For each item, certain descriptive information was available. This included: the media type (newspaper, television, radio); the prominence of the item (front page newspaper items were considered prominent, as were items of two or more minutes on television and radio); the focus of the item (completed suicide, attempted suicide, suicidal ideation); the content of the item (individual's experience, suicide statistics, suicide research, suicide policy/programs, suicide opinion piece, mass suicide, murder-suicide, legal issues regarding suicide); and any suicide method referred to in the item (hanging, ingesting substances, gas, firearms, high impact methods). An overall quality rating was available for the 504 item that were explicitly rated for quality during the Media Monitoring Project; the reach of 397 (79%) of these items could be determined using 2001 SLAs.

The above data on actual completed suicide and on media items relating to suicide were consolidated into a single dataset that was organised into item-SLA records. For each item-SLA combination, the date of the item was attached to the record, as was any descriptive information about the item, and the total quality score associated with it. It was also possible to determine the number of other media items reaching the same SLA on the same date. Also added to the file were data on the number of male and female suicides in the particular SLA on the date of the item (Day 00), and on each of the dates up to 14 days before (Day -14 to Day -01) and up to 14 days after (Day 01 to Day 14).

Four separate regression analyses were performed to examine the association between media reporting of suicide and actual suicidal behaviour, one each for male and female suicides using the full dataset, and one each for male and female suicides using the restricted dataset that contained only items rated for quality. In each regression analysis, the outcome variable was the difference between the number of suicides in the seven days after the given media item (i.e., on Days 00-06) and the number on Days -14 to -08 before. This was conceptualised as a binary variable: 'increase' versus 'no increase'. The regression analyses considered whether the likelihood of an increase in male or female suicides could be explained by particular characteristics of the media item (see Figure 1 for a pictorial representation of this analysis strategy).

Figure 1: Pre- and post-item comparison periods



A decision was made not to include the week immediately before the item as the comparison, in order to minimise the likelihood of the item having been about a suicide that occurred during this period. In other words, every effort was made to ensure that if any association was observed it was more likely to be explained by media items influencing suicidal behaviour than by suicidal behaviour influencing media items. It should be noted that this approach excluded media items in the first 14 days of the Media Monitoring Project from the analysis, because suicide data for the pre-period were not available.

The objective of the analysis was to determine which, if any, characteristics of media reporting were independently predictive of an increase in suicides, after adjustment for all other variables. Particular emphasis was given to the quality of the media items, in order to test the hypothesis that the rate of completed suicide in a given geographical area would be higher than would be expected in the period following a media item on suicide that is of poor quality, and lower than would be expected in the period following a media item of good quality.

Results

Overview of media items on suicide

Figure 2 provides a monthly breakdown of the total number of media items on suicide retrieved during the Media Monitoring Project. More detail about these items is available elsewhere.^{3, 4} There was variation in the frequency of media items by month, with particularly high-volume months being March 2000 (n=830), June-July 2000 (n=526 and n=569, respectively) and October 2000 (n=465). In March, there were numerous articles about deaths in custody following the suicide in jail of a 15-year-old Aboriginal boy in Darwin; in June-July there was a high level of coverage of the story of a prominent Federal politician who attempted, and subsequently completed, suicide; and in October, the figures reflected stories associated with Mental Health Week. The lowest number of items was recorded in September 2000 (n=167), when column space and air time were taken up with coverage of the Sydney Olympics.

Overview of completed suicides

Figure 3 shows the number of completed suicides in Australia during the data collection period of the Media Monitoring Project, by month. In total, there were 2,341 suicides during this period. These suicides were spread relatively evenly across the 12 month study period, increasing slightly over time as indicated by the trend line on the figure.

Figure 2: Total media items about suicide retrieved during the Media Monitoring Project (March 2000 – February 2001)

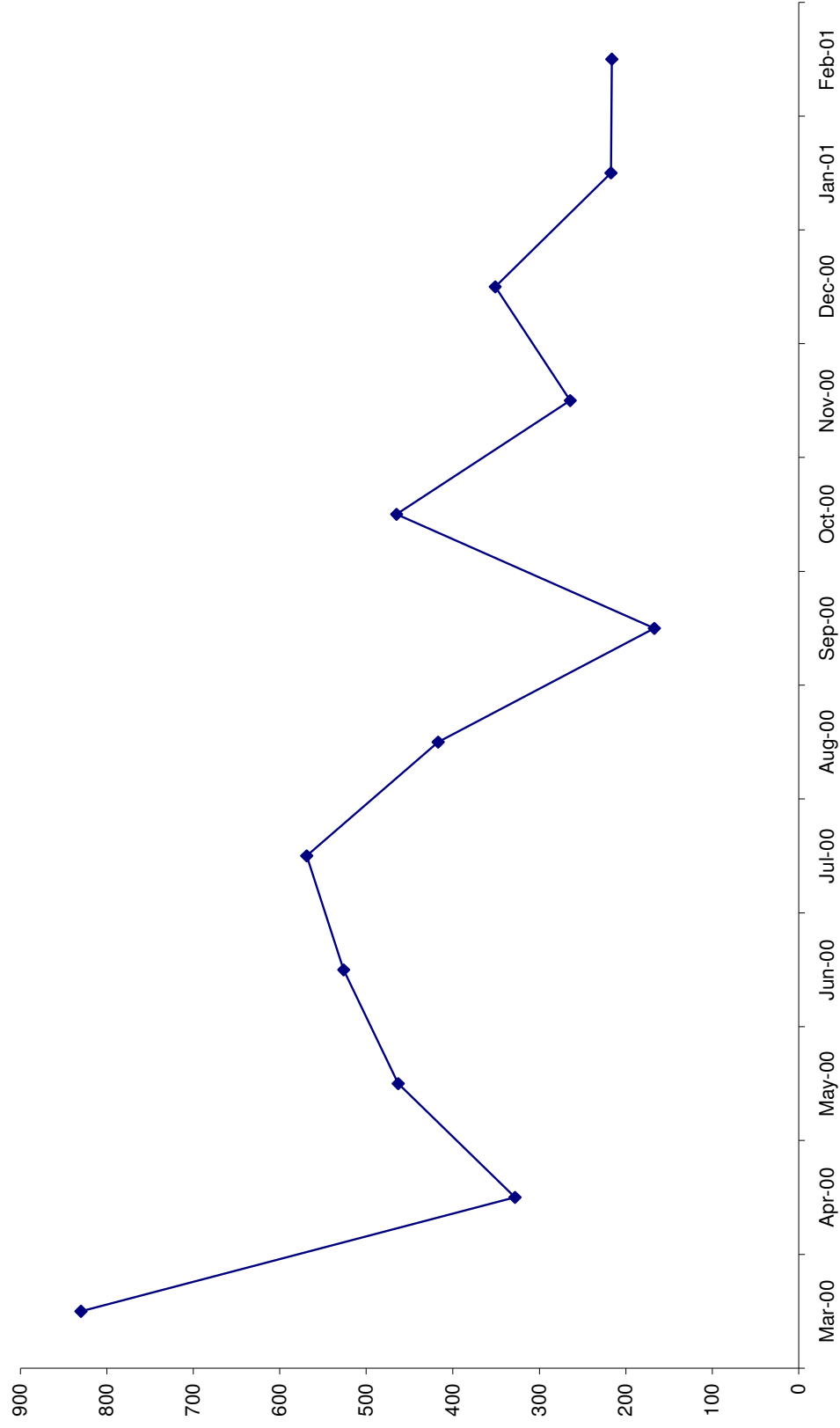
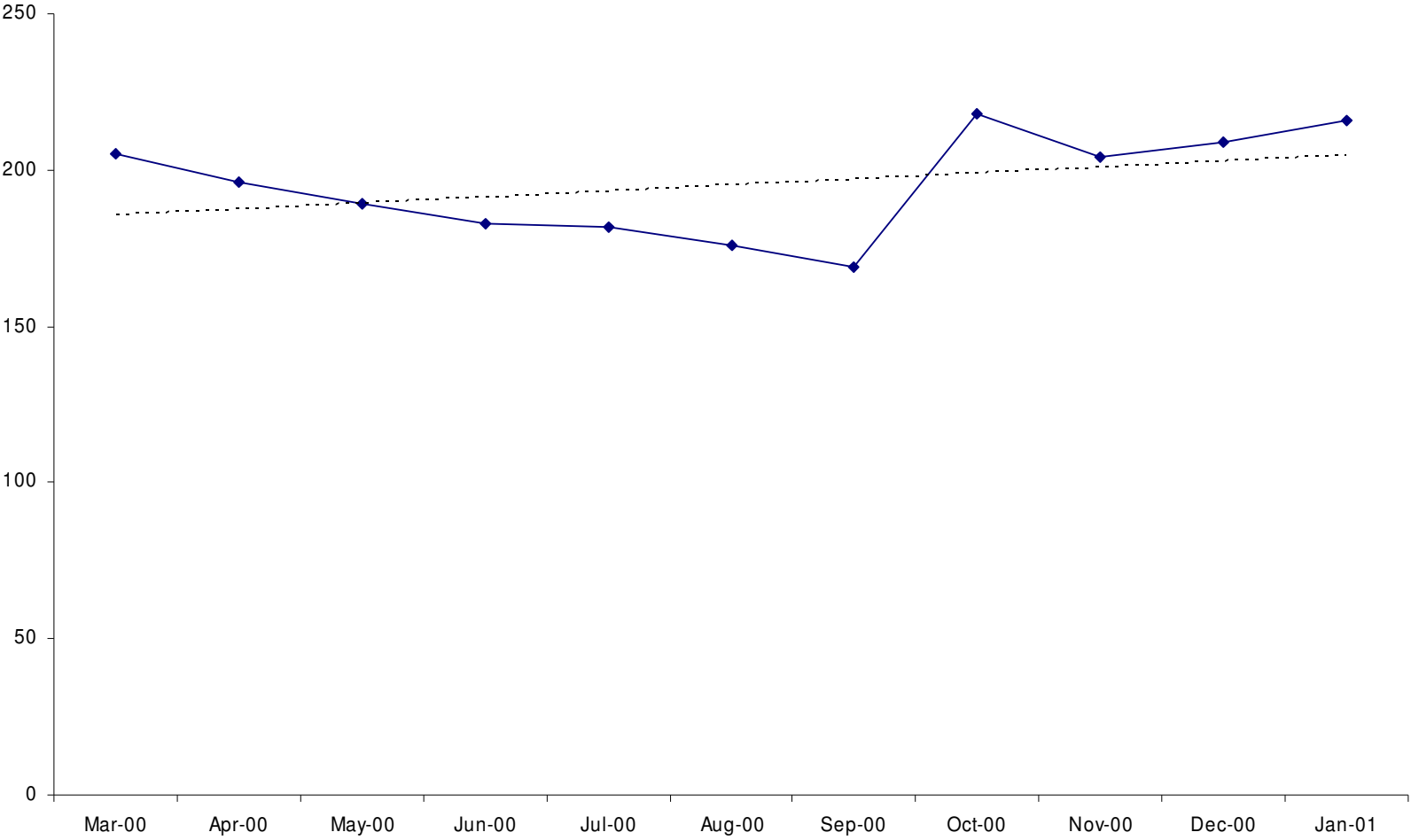


Figure 3: Completed suicides, Australia (March 2000 – February 2001)



Association between media items on suicide and actual completed suicides

In total, 1,182 media items (39%) were followed by an increase in male suicides, and 1,434 (31%) were followed by an increase in females suicides. Table 1 and Table 2 show the characteristics of media items associated with these increases (for male and female suicides respectively), using the full dataset.

Table 1: Association between characteristics of media items and male suicides (all media items, n=4,635)

		OR	95%lo	95%hi	p
Media type	Radio	1.00			
	Television	1.34	1.11	1.63	0.002
	Newspaper	1.13	0.96	1.33	0.128
Other items	0-3	1.00			
	4-5	1.37	1.05	1.78	0.019
	6-10	1.31	1.04	1.66	0.022
	11-20	1.77	1.40	2.24	0.000
	>20	3.37	2.60	4.37	0.000
Item focus	Completed suicide	1.16	0.98	1.36	0.084
	Attempted suicide	1.01	0.83	1.23	0.929
	Suicidal ideation	0.80	0.65	0.98	0.028
Item content	Individual's experience	1.36	1.15	1.63	0.000
	Statistical overview	1.14	0.95	1.37	0.156
	Research initiative	1.19	0.96	1.47	0.106
	Policy/program initiative	1.05	0.88	1.24	0.602
	Opinion piece	1.52	1.20	1.93	0.001
	Mass suicide	1.28	0.98	1.68	0.075
	Murder suicide	0.50	0.38	0.66	0.000
	Media coverage of suicide	1.14	0.81	1.62	0.447
	Legal issues re. suicide	1.03	0.76	1.40	0.844
	Causes of suicide	1.26	0.89	1.80	0.191
	Suicide method	Hanging	0.82	0.58	1.16
Ingestion of substances		1.16	0.70	1.93	0.561
Gas		1.11	0.68	1.81	0.671
Firearm		0.77	0.48	1.24	0.279
High impact method		0.89	0.48	1.62	0.695
Prominence		0.96	0.81	1.14	0.650

Table 2: Association between characteristics of media items and female suicides (all media items, n=4,635)

		OR	95%lo	95%hi	p
Media type	Radio	1.00			
	Television	1.51	1.23	1.84	0.000
	Newspaper	1.15	0.96	1.37	0.127
Other items	0-3	1.00			
	4-5	1.24	0.93	1.66	0.137
	6-10	1.23	0.95	1.58	0.119
	11-20	1.29	1.00	1.67	0.053
	>20	4.13	3.13	5.44	0.000
Item focus	Completed suicide	0.93	0.77	1.12	0.433
	Attempted suicide	0.79	0.64	0.99	0.038
	Suicidal ideation	0.77	0.62	0.97	0.028
Item content	Individual's experience	1.08	0.90	1.31	0.397
	Statistical overview	1.07	0.88	1.31	0.503
	Research initiative	0.94	0.74	1.18	0.574
	Policy/program initiative	0.62	0.51	0.75	0.000
	Opinion piece	1.21	0.94	1.55	0.148
	Mass suicide	1.26	0.95	1.67	0.115
	Murder suicide	0.72	0.55	0.96	0.023
	Media coverage of suicide	1.66	1.16	2.36	0.005
	Legal issues re. suicide	0.62	0.44	0.88	0.008
	Causes of suicide	0.78	0.52	1.17	0.232
Suicide method	Hanging	0.77	0.52	1.14	0.191
	Ingestion of substances	1.46	0.85	2.50	0.169
	Gas	1.12	0.67	1.88	0.659
	Firearm	0.62	0.36	1.05	0.077
	High impact method	0.80	0.41	1.56	0.506
Prominence	Prominent	0.95	0.79	1.14	0.589

The findings can be summarised as follows:

- Compared with radio items, television items were significantly more likely to be associated with an increase in both male and female suicide rates. Newspaper items did not perform significantly differently from radio items.
- Items occurring on the same day as a number of other items were significantly more likely than items occurring in relative isolation to be associated with an increase in both male and female suicide rates. For males, this increased likelihood was evident with as few as 4-5 other items, and became more marked as the number of other items continued to escalate. For females, the trend was similar, but only reached significance when the number of other items reached beyond 20.
- Items that were about suicidal ideation were significantly less likely than items that were not about suicidal ideation to be associated with an increase in both male and female suicide rates. Items that were about suicide attempts were significantly less likely than items that were not about suicide attempts to be associated with an increase in female (but not male) suicides.
- Content-wise, items demonstrated different patterns of relationship to male and female suicides. Compared with items without such content, items about an individual's experience and opinion pieces were significantly more likely to be followed by an increase in male suicides, items featuring murder-suicides were significantly less likely. Items about mass suicide and media coverage of suicide were significantly more likely to be

followed by an increase in female suicides, and items on policy/program initiatives, murder-suicides and legal issues regarding suicide were significantly less likely.

- In the case of both male and female suicides, mention of particular suicide methods did not influence the likelihood of a post-item increase in frequency, and nor did the prominence of the item.

As noted, the association between item quality and increases in male and female suicides was given special consideration, using the restricted dataset that only included items that had been rated for quality during the Media Monitoring Project. When quality alone was considered, items of poor quality were no more likely to be associated with increases in male suicide (OR = 1.09; 95%CI = 0.73-1.63) or female suicides (OR = 1.05; 95%CI = 0.70-1.58). Two separate logistic regressions were conducted that included the variables that had reached significance in the earlier analyses, in order to see whether any of these substantially mediated any influence of item quality. The results are shown in Table 3 and Table 4.

Table 3: Association between item quality and male suicides, controlling for other significant item characteristics (media items rated for quality, n=397)

		OR	95%lo	95%hi	p
Media type	Radio	1.00			
	Television	0.97	0.50	1.88	0.935
	Newspaper	0.93	0.56	1.52	0.763
Other items	0-3	1.00			
	4-5	2.71	1.15	6.39	0.022
	6-10	1.47	0.70	3.10	0.309
	11-20	1.65	0.78	3.48	0.189
	>20	4.40	1.88	10.30	0.001
Item focus	Suicidal ideation	0.43	0.22	0.86	0.017
Item content	Individual's experience	1.38	0.88	2.19	0.164
	Opinion piece	1.31	0.59	2.91	0.510
	Murder suicide	0.38	0.14	1.04	0.059
Item quality	Good quality	1.04	0.68	1.60	0.861

Table 4: Association between item quality and female suicides, controlling for other significant item characteristics (media items rated for quality, n=397)

		OR	95%lo	95%hi	p
Media type	Radio	1.00			
	Television	0.65	0.31	1.36	0.25
	Newspaper	1.07	0.63	1.81	0.80
Other items	0-3	1.00			
	4-5	1.25	0.52	3.02	0.61
	6-10	1.04	0.48	2.21	0.93
	11-20	0.91	0.42	1.97	0.81
	>20	3.88	1.60	9.36	0.00
Item focus	Attempted suicide	0.53	0.26	1.07	0.08
	Suicidal ideation	0.42	0.19	0.92	0.03
Item content	Policy/program initiative	0.69	0.39	1.20	0.19
	Mass suicide	1.73	0.70	4.30	0.24
	Murder suicide	1.53	0.57	4.07	0.40
	Media coverage of suicide	0.82	0.28	2.38	0.71
	Legal issues re. suicide	0.67	0.25	1.81	0.43
Item quality	Good quality	0.85	0.53	1.36	0.49

The results show that the relationship between item quality and suicides was not mediated by other previously-significant factors. In addition, the association between the majority of these other factors and suicides failed to reach significance when the restricted dataset was used. The only factors still exerting an influence were the number of other items, and the item's focus.

Discussion

This study found that certain characteristics of media items were predictive of increases in both male and female suicides. Perhaps the most noteworthy of these findings is the fact that media items that occurred in the context of multiple other reports on suicide were likely to be associated with increases, and that this effect increased as a function of the number of other items broadcast or printed on the same day in the same area. This finding is consistent with that of other authors who have demonstrated similar dose-response effects.^{5, 10-13} It makes intuitive sense that if the public is faced with a barrage of reporting on suicide, there is an increased likelihood of vulnerable individuals engaging in 'copycat' behaviours.

Also of note is the finding that the medium most likely to run items that were associated with an increase in both male and female suicides was television. It is possible to speculate as to the reasons for this. Television is a highly accessible medium that provides both visual and auditory stimuli. For these reasons, it may exert a more powerful influence on attitudes and behaviour than either radio or newspapers, particularly for at-risk individuals.

Also readily interpretable is the finding that items including a focus on suicidal ideation were comparatively less likely to be associated with increases in both male and female suicides, and items focusing on suicide attempts were relatively less likely to be associated with increases in female suicides. Suicidologists recognise that suicidal behaviours occur on a gradient, from suicidal ideation (defined as 'thoughts of suicide ... [that] ... can vary from transient notions about life being meaningless to intense preoccupation with taking one's own life'¹⁴ through attempted suicide (defined as 'an act with a non-fatal outcome, in which an individual deliberately initiates a non-habitual behaviour that, without intervention from others, will cause self harm, or deliberately ingests a substance in excess of the prescribed or generally recognised therapeutic dosage, and which is aimed at realising [desired] changes ... via the actual or expected physical consequences'¹⁵) to completed suicide (defined as 'a death that is the result of an act perpetrated by the victim, with the intention of achieving this outcome'¹⁶). Although individual items could have all three foci, many of those that referred to suicidal ideation and suicide attempts did not refer to more extreme suicidal behaviours further up the hierarchy, and it is reasonable to hypothesise that these items would be less likely to trigger completed suicides. Having said this, it should be noted that the items whose focus included completed suicide were not significantly more likely to be followed by a period of increased suicides, although there was a trend in this direction, at least for male suicides.

More complex, and more difficult to explain, is the relationship between item content and increases in male and female suicides. According to social learning theory, it might have been anticipated that those media items that included content relating to an individual's experience might be the most likely to motivate imitation behaviours (particularly if the observer identified with the model in some way).^{17, 18} Such items were predictive of increases in male suicides, but not female suicides. Other item content was also associated with increases in suicides, including opinion pieces about suicide (male suicides), mass suicide (female suicides) and discussions of media coverage of suicides (female suicides). These findings are more difficult to interpret and clearly warrant further exploration in terms of their potential to influence 'copycat' acts.

Perhaps even more striking than the above positive findings is the fact that increases in suicide were not predicted by some characteristics of the items that, in previous studies, have been linked to heightened risk. For example, items that explicitly described any of several methods of suicide were not any more likely to be followed by an increase in male or female suicides than those that did not. Findings from other studies have implicated overt descriptions of suicide methods in 'copycat' behaviours.¹⁹⁻²⁵ The inconsistency might be explained by the fact that the

sampling frame for the current study was more inclusive than those of previous studies – e.g., including all items on suicide and not just those relating to an individual’s experience – and relatively few of the items in the current study actually made reference to a specific suicide method.

Another negative finding which is at odds with previous literature is the fact that the prominence of the item made no difference to the likelihood of it being followed by an increase in male or female suicides. Other studies that have restricted their focus to prominent items (e.g., items appearing on the front page of major newspapers) have tended to demonstrate an effect.^{5, 7, 10, 11, 26-33} This includes the only previous Australian study conducted in the area, which found that ‘high impact’ stories published in *The Age* and *The Sydney Morning Herald* between 1981 and 1990 were followed by an increase in suicide rates for males (though not for females).⁷ Again, the discrepant findings in the current study may relate to its more inclusive sampling frame, which included all items on suicide from electronic as well as print media.

Perhaps the most vexatious finding is that item quality bore no relationship to increases in post-item suicides, particularly since no other studies have explicitly explored the impact of item quality. This may have been due to the relatively small sample of items that could be included in the quality analysis, and/or to the relatively blunt nature of the binary quality rating. Further work is clearly needed, since it is counter-intuitive to dismiss the hypothesis that item quality would be likely to have an impact upon the likelihood of a given media item influencing imitation acts.

To conclude, the study suggests that there may be an association between the quantity of media items in a given period and the number of subsequent suicides, with television items exerting a particularly strong influence. Unravelling the precise characteristics of the media items that may be most likely to be followed by an increase in suicides clearly requires further investigation.

Chapter 4: Study 2 – The relationship between media reporting of suicide and hospital admissions for suicide attempts

Method

This study used as its starting point the 504 media items that were printed or broadcast between 1 March 2000 and 28 February 2001 and rated for quality as part of the Media Monitoring Project. Using the methods described in Chapter 2, the geographical reach of each of these items was determined and recorded by SLA. A list of these items, including the date that they were printed or broadcast and the SLAs associated with them, was provided to the Australian Institute of Health and Welfare (AIHW). The AIHW then made available the aggregate number of hospital admissions (by age and sex) for attempted suicide that occurred within the area of reach of each item, in the two weeks prior to the date of the item, and in the two weeks following the item (including the day the item was printed or broadcast). For reasons of confidentiality, cells of <5 were suppressed. A conservative approach was taken here, and the assumption was made that one hospital admission for a suicide attempt had occurred in each of these instances.

The AIHW acts as a repository for state/territory-based hospital data, but does not own these data. For this reason, each state/territory was sent a file containing the relevant data on hospitalisations for suicide attempts as defined by SLA and time period, and asked to sign off on these data. The study team received data from five states/territories, namely New South Wales, Victoria, Queensland, Tasmania and the Australian Capital Territory.

The separate state/territory-based data files that were returned to the study team were concatenated into a single data file, organised by media item. Descriptive information was appended to each record, such that each item was characterised by: media type (newspaper, television, radio); the state/territory it was printed or broadcast in; its prominence (front page newspaper items were considered prominent, as were items of two or more minutes on television and radio); its focus (completed suicide, attempted suicide, suicidal ideation); and its content (individual's experience, suicide statistics, suicide research, suicide policy/programs, suicide opinion piece, mass suicide, murder-suicide, legal issues regarding suicide). A binary measure of quality was also available for each item, as was an indicator of the number of competing media items on suicide reaching the same geographical area on the same day.

Two separate regression analyses were performed to examine the association between media reporting of suicide and actual suicidal behaviour, one each for hospitalisations for suicide attempts by males and females. In each regression analysis, the outcome variable was the difference between the number of suicides in the two weeks after the given media item and the number in the two weeks before. This was conceptualised as a binary variable: 'increase' versus 'no increase'. The regression analyses considered whether the likelihood on an increase in male or female hospitalisations for suicide attempts could be explained by particular characteristics of the media item.

Results

Overview of media items on suicide

In total, 229 of the 504 media items were broadcast or printed in the five states/territories for which data on suicide attempts were available.^a Of these, 35 (15%) were television items, 106 (46%) were radio items, and 88 (38%) were newspaper items.

^a Media items whose reach straddled more than one state/territory (i.e., items printed in national newspapers, or broadcast on national radio and television networks) were excluded from the analysis.

Most commonly, the focus of these items was completed suicide (167, or 73%). Forty five (20%) discussed attempted suicide, and 40 (18%) considered suicidal ideation.

The items varied in terms of quality, with 43% scoring 50 or lower on the quality rating scale designed for the Media Monitoring Project (i.e., being of poor quality), and 57% scoring 51 or higher (i.e., being of good quality).

Overview of hospital admissions for suicide attempts

Because of the way in which the data on hospital admissions for suicide attempts were released to the study team, it is difficult to provide an overview of their magnitude. Unlike the data on completed suicide used in Study 1 (presented in Chapter 3) and the data on emergency department presentations for suicide attempts used in Study 3 (presented in Chapter 5), absolute numbers of hospitalisations for suicide attempts in the given states/territories were not available. Instead, the suicide attempts surrounding a given media item were provided, which meant that suicide attempts occurring outside the timeframe or location of any items in the sample were not included in the dataset, and that individual suicide attempts could be counted more than once if they occurred within the timeframe or location of more than one item.

Association between media items on suicide and actual hospital admissions for suicide attempts

For 127 of the 229 media items (56%), the hospitalisations for suicide attempts by males in the two weeks after the item outnumbered those in the two weeks before the item. Similarly, for 124 items (54%), the absolute number of hospitalisations for suicide attempts by females was higher in the two weeks after the item.

The regression analyses explored the characteristics of media items that were associated with an increase in hospitalisations for suicide attempts for both males and females. Tables 5 and 6 show that the analyses yielded little by way of positive findings. Compared with items containing other content, media items about an individual's experience of suicidal behaviours were less likely to be associated with an increase in hospitalisations for male suicide attempts. Beyond this, no other characteristics could be isolated as having a connection with an increased rate of hospitalisations, either for males or females.

Table 5: Association between characteristics of media items and male hospitalisations for suicide attempts (media items rated for quality, n=229)

		OR	95%lo	95%hi	p
Media type	Radio	1.00			
	Television	1.08	0.46	2.53	0.868
	Newspaper	1.29	0.53	3.15	0.572
Other items	>0	0.39	0.10	1.57	0.183
Item focus	Completed suicide	1.84	0.86	3.90	0.114
	Attempted suicide	1.36	0.62	2.99	0.439
	Suicidal ideation	0.91	0.38	2.15	0.827
Item content	Individual's experience	0.44	0.21	0.92	0.029
	Statistical overview	0.71	0.31	1.62	0.420
	Research initiative	3.31	1.00	10.97	0.050
	Policy/program initiative	1.40	0.65	3.02	0.392
	Opinion piece	0.51	0.17	1.49	0.219
	Mass suicide	0.78	0.20	3.06	0.720
	Murder suicide	1.75	0.35	8.79	0.496
	Media coverage of suicide	2.04	0.40	10.24	0.389
	Legal issues re. suicide	1.63	0.52	5.16	0.404
	Causes of suicide	0.72	0.18	2.86	0.637
Prominence	Prominent	1.37	0.49	3.82	0.549
Item quality	Good quality	0.63	0.34	1.16	0.135

Table 6: Association between characteristics of media items and female male hospitalisations for suicide attempts (media items rated for quality, n=229)

		OR	95%lo	95%hi	p
Media type	Radio	1.00			
	Television	1.23	0.53	2.86	0.637
	Newspaper	1.24	0.52	2.96	0.630
Other items	>0	0.56	0.14	2.20	0.405
Item focus	Completed suicide	1.29	0.63	2.64	0.487
	Attempted suicide	1.74	0.82	3.69	0.150
	Suicidal ideation	0.67	0.29	1.52	0.336
Item content	Individual's experience	0.79	0.39	1.61	0.523
	Statistical overview	0.70	0.32	1.52	0.367
	Research initiative	2.04	0.73	5.70	0.176
	Policy/program initiative	1.42	0.68	2.99	0.349
	Opinion piece	0.76	0.27	2.15	0.608
	Mass suicide	1.90	0.46	7.79	0.373
	Murder suicide	2.64	0.47	14.86	0.272
	Media coverage of suicide	0.75	0.17	3.35	0.705
	Legal issues re. suicide	2.48	0.78	7.85	0.123
	Causes of suicide	2.06	0.48	8.84	0.329
Prominence	Prominent	0.86	0.33	2.25	0.764
Item quality	Good quality	1.09	0.61	1.98	0.766

Discussion

Consistent with relevant studies conducted elsewhere,^{21, 23-25} the current study observed a general tendency for the number of hospitalisations for suicide attempts (for both males and females) to increase in the two weeks following a media item on suicide, relative to the equivalent period prior to the item.

In terms of predictors of suicide attempts, the key finding was that media items about an individual's experience of suicidal behaviour were less likely to be associated with an increase in the number of hospitalisations for male suicide attempts in the period immediately following the item. Interpreting this finding requires some careful thought. It might have been expected that the relationship would go in the opposite direction, and that media items about an individual would be more likely to be associated with an increase in hospitalisations. Indeed, this relationship was demonstrated in Study 1 (described in Chapter 3). The difference between Study 1 and the current study, however, was that in the former the independent variable was completed suicide. It may be plausible that items about an individual's experiences have differential impacts on the behaviours of vulnerable readers and viewers, increasing the likelihood of lethal attempts while simultaneously decreasing the likelihood of attempts that are survived. Some support for this interpretation comes from the fact that the patterns observed in Study 1 and the current study applied to males only, which is consistent with the common finding that the epidemiology of completed and attempted suicide is different for males and females (with males exhibiting higher rates of completed suicide and lower rates of attempted suicide). The finding is also consistent with the notion that attempted and completed suicides by vulnerable individuals may be motivated by overlapping, but different, factors.

Apart from this single finding, however, it was not possible to identify characteristics of media items that made them more (or less) prone to exhibiting this relationship with actual suicidal behaviour. The relatively small number of media items in the sample probably contributed to this null result – only 504 media items were rated for quality and available for analysis at the outset, and this number was reduced to around half because data were not available from all states/territories. Further exploration of particular features of media items that may promote (or deter) 'copycat' behaviours is clearly warranted.

Chapter 5: Study 3 – The relationship between media reporting of suicide and emergency department presentations for suicide attempts

Method

The Victorian Department of Human Services (DHS) made available data on Emergency department presentations for suicide attempts from the Victorian Emergency Minimum Dataset (VEMD).

Through the VEMD, data were available on emergency department encounters at 31 public hospitals in Victoria. The VEMD does not accept the full range of ICD-10-AM diagnoses, and, in particular, excludes those in the range X60-X84 which cover self harm. It does, however, accept an intent code. For the purposes of the current study, encounters associated with intentional self harm were considered to be for suicide attempts, as were encounters where the intent could not be determined or was not specified, or was recorded as 'other'. This broad definition of suicide attempt was considered warranted given that intent is not always clear. Such a definition is also consistent with comparable studies in the field, which tend to adopt broad criteria in recognition of the uncertainty of the area.

In accordance with current privacy policies and legislation, DHS provided the VEMD data in an aggregated form, to preclude any possibility of identification of individuals by 'deductive disclosure'. Specifically, the frequency of emergency encounters for suicide attempts across the state was provided for the first and second halves of each month (days 1-14, and day 15 onwards) for the period of the Media Monitoring Project (1 March 2000 to 28 February 2001).

For the purposes of the current study, data from the Media Monitoring Project were also organised into 15 sets of half-monthly periods so that the structure of the data on media reporting of suicide corresponded with that of the data on actual suicidal behaviour. The frequency of items on suicide from all Victorian and national newspapers, radio stations and television stations was calculated for each half-monthly period, each half-monthly period lagged by one day, each half-monthly period lagged by two days and so on to a lag of 14 days. Two sets of frequencies were calculated for each period: the number of media items of any type, and the number of media items about an individual's suicidal behaviour.

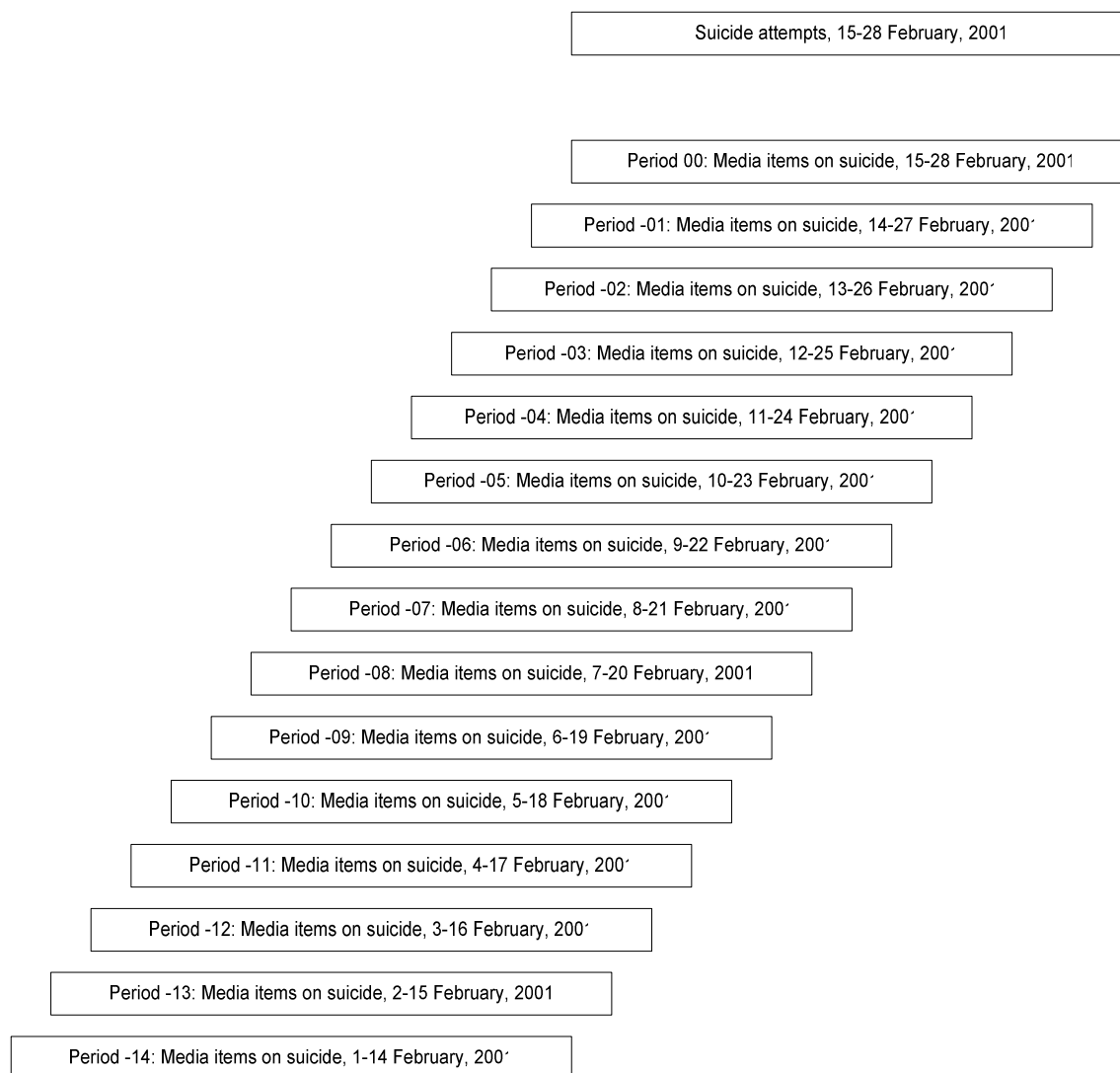
The high level of aggregation of the data limited the analyses that could be performed in this study to a simple examination of the correlation between media items and suicide attempts in given half-monthly periods, with lags of 0 to 14 days. The lags were introduced since there is evidence from previous international studies that, where an effect exists, it is likely to be greatest in the three days after a story, and that it may dissipate by 10-14 days.^{1,2}

Figure 4 provides a pictorial representation of the analysis strategy, using the example of the last half-monthly period in the study, 15-28 February 2001. The analysis considered the number of suicide attempts in this period, and examined their relationship to the number of media reports in the same period (Period 00), the number of media reports in the period 14-27 February 2001 (Period -01), the number of media reports in the period 13-26 February 2001 (Period -02), and so on until the period 1-14 February 2001 (Period -14). Note that the first half-monthly period of the Media Monitoring Project (1-14 March 2000) was excluded from the study, because data were not available for the appropriate lagged periods.

The analysis considered the potential impact of all media items on suicide attempts, on the grounds that exposure to a large number of items on suicide might be expected to adversely influence the suicide attempt rate. It also considered the potential impact of a more restricted sample of media items on suicide – those that related to an individual's experience of completed

or attempted suicide or suicidal ideation – on the grounds that these items might be expected to have the greatest influence on the behaviour of others, and that this effect might be diluted by the presence of other sorts of items (e.g., those about policies/programs related to suicide prevention) in the former analysis.

Figure 4: Pictorial representation of analysis strategy, using the period 15-28 February 2001 as an example



Results

Overview of media items on suicide

Figure 5 shows the number of media items on suicide retrieved from Victorian and national sources during the Media Monitoring Project. The lower line on the figure shows the number of media items in each period that were related to an individual's experience of completed or attempted suicide, or suicidal ideation. There was variation by half-monthly period, with the lowest number of media items being recorded in the first half of March 2000 ($n=3$) and the highest number being recorded in the second half of June 2000 ($n=105$). The latter figure was

associated with coverage of the story of a prominent Federal politician who attempted, and subsequently completed, suicide. This continued into the first half of July 2000 (n=36). The second half of October 2000 was also a period with a relatively high volume of items, many of which discussed individuals' suicidal behaviour in the context of Mental Health Week.

The upper line on the figure shows the total number of items in each period, including items about an individual's experiences, but also including items on suicide statistics, suicide research, suicide policy/programs, suicide opinion piece, mass suicide, murder-suicide, legal issues regarding suicide, and other items. Again, there was variability in the frequency of these items per half-month period, with the lowest number of items being recorded in September 2000 (n=8 in the first half and n=13 in the second half) and in the second half of December 2000 (n=10) and the first half of January 2001. These low numbers might be explained by the Sydney Olympics and the summer holiday period, respectively. As with items on individual's experiences, high volume half-months included the latter half of June (n=390), the first half of July (n=311) and the second half of October (n=346). Typically, these items were about suicide statistics, suicide research, and suicide policy/programs, and they followed more specific discussions of the Federal politician's suicide and Mental Health Week. March was also a high volume month (particularly the latter half, n=367). In this month, there were numerous items about deaths in custody as a potential consequence of mandatory sentencing laws. These items represented a flow-on effect from the suicide in jail of a 15-year-old Aboriginal boy in Darwin the month before the Media Monitoring Project began.

Overview of presentations to emergency departments for suicide attempts

Figure 6 shows the presentations to Victorian emergency departments for attempted suicide during the data collection period of the Media Monitoring Project. The figure demonstrates an increasing trend in this type of presentations over time, and considerable variability between half-month periods. The lowest number of presentations occurred in the first half of June 2000 (n=581) and the highest number occurred in the second half of October 2000 (n=1,083).

Correlation between media items on suicide and presentations to emergency departments for suicide attempts

Figure 7 shows the correlation between media items on suicide (all items and items about individuals' experiences) and presentations to emergency department for suicide attempts for each of the 15 lagged periods.

The lower line on the figure shows the correlation between items about individuals' experiences and presentations to emergency departments for suicide attempts. There was virtually no correlation between the former and the latter, with the correlation coefficient varying from negative to positive around 0.00 for the more lagged periods. There was some tendency for the correlation to remain positive and the size of the coefficient to increase as the lag becomes shorter, with the highest positive correlation being 0.10 for Period 00 (where there was total overlap between the observation period for media items and that for suicide attempts).

The upper line on the figure shows the equivalent correlation coefficients for all media items. It shows that although there was a stronger positive correlation between media items on suicide and suicide attempts when all media items were included in the analysis, but that, at best, this correlation could still only be described as moderate. The magnitude of the correlation coefficient was lowest at the maximally lagged Period -14 (0.01), increased to 0.30 at Period -06, and then dropped to 0.17 at Period 03 where it remained steady until Period 00.

Figure 5: Media items about suicide from Victorian and national sources, by item type (March 2000 – February 2001)

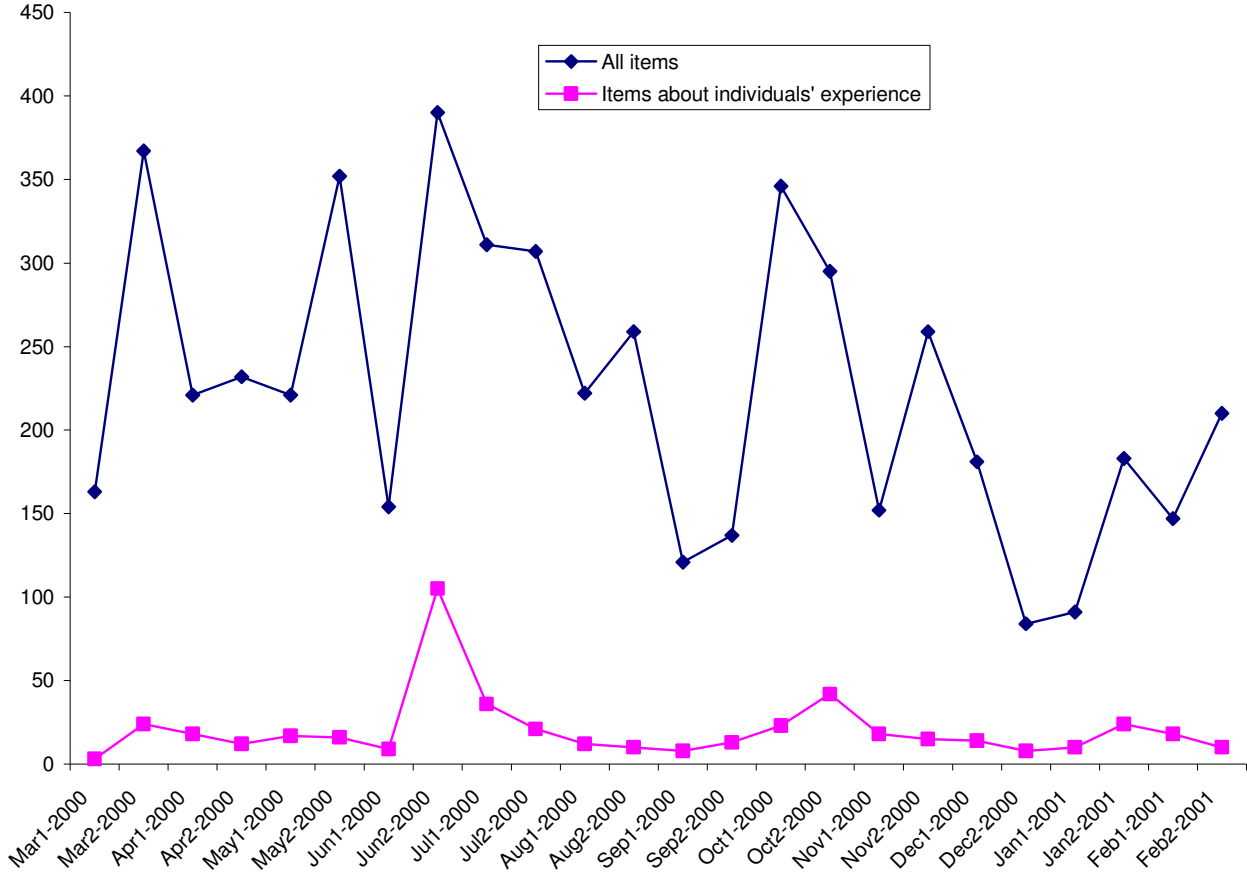


Figure 6: Presentations to Victorian emergency departments for suicide attempts (March 2000 – February 2001)

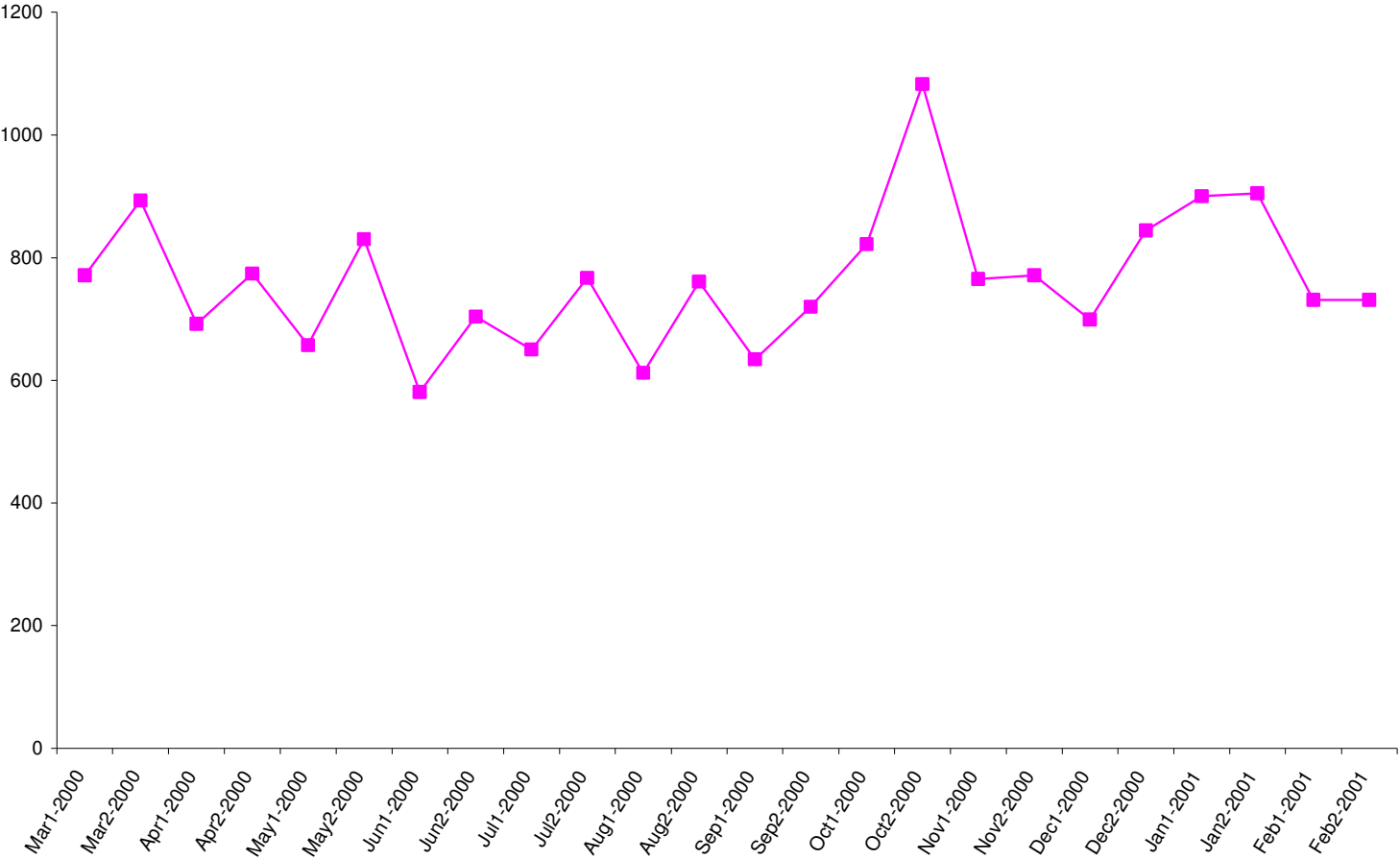
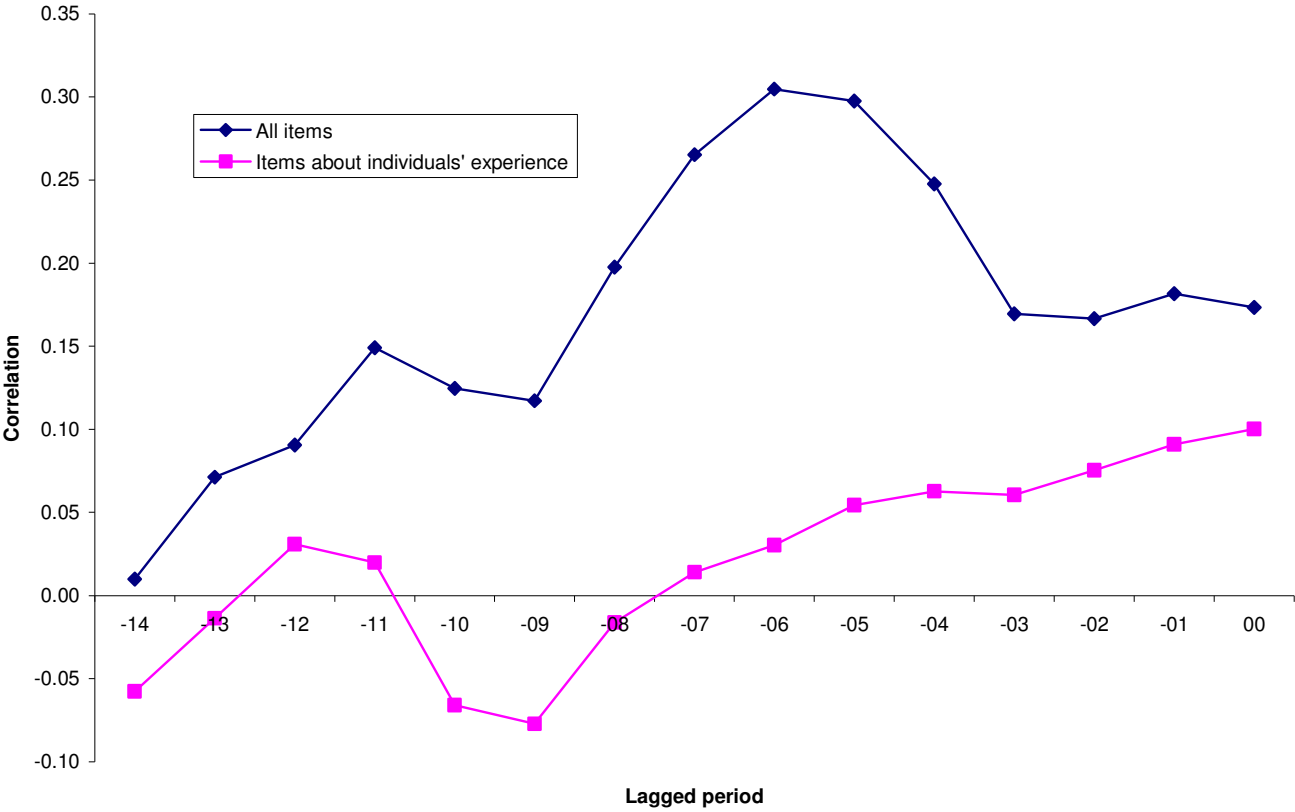


Figure 7: Correlation between media items about suicide and presentations to emergency departments for suicide attempts



Discussion

The findings of this study must be considered in the context of its limitations. Its major limitation was the aggregated nature of the data on suicide attempts. In order to protect the privacy and confidentiality of Victorians who had presented to emergency departments following a suicide attempt, DHS provided the VEMD data in a highly aggregated form. The ethical merit of this approach is acknowledged, but from an analysis perspective it would have been desirable to have received the data in a more disaggregated manner (i.e., broken down by geographical location and date). The aggregated data precluded all but the simplest analysis of the association between the absolute number of media items and the absolute number of suicide attempts in the half-monthly periods of the Media Monitoring Project. There was no way of accounting for the quality of given media items, and only the simplest analysis could be conducted of the impact of the nature of the items (i.e., media items that were explicitly about individuals' experiences of suicidal behaviour versus all media items). The aggregated data also limited the study's capacity to determine whether a given media item occurred before a given suicide attempt, which had implications for making causal inferences.

Despite this limitation, the study contributes to knowledge regarding the extent to which media reporting of suicide impacts on actual suicidal behaviour. The study found that there was virtually no correlation between the number of media items about individuals' experiences of suicidal behaviour and the number of presentations to emergency departments for suicide attempts, regardless of the degree of lag introduced into the data to allow for any impact to occur. The correlation was highest when the lag was shortest (i.e., when the observation period for media items and that for suicide attempts totally overlapped). This finding is difficult to interpret, because it may indicate that media items have their maximum impact on suicidal behaviour immediately after they are printed or broadcast, but, alternatively, it may indicate that attempted suicides are likely to be reported in the media on or around the day they occur. Without further information on the chronology of events, it is not possible to disentangle these potential effects.

The study found a stronger, though still only moderate, correlation between the total number of media items about suicide and the number of presentations to emergency departments for suicide attempts. The correlation increased in strength as a function of a decreasing lag between the period of media reporting and the period of suicide attempts, up to a six day lag. Beyond this, the correlation decreased and then plateaued. Again, this finding should be interpreted with some caution, but it does indicate that there is some relationship between media reporting and actual suicidal behaviour, albeit only a weak one. The chronology of events is still not entirely clear, but at the point at which the highest correlation was observed, at least a proportion of the media items definitely occurred prior to the period in which suicide attempts were counted. This suggests that, to the extent there is an association, it is likely to point in the hypothesised direction. In other words, the interpretation that high media coverage of suicide has an impact on suicide attempt rates is more plausible than the interpretation that high suicide attempt rates result in an increase in reportage of suicide stories.

It is perhaps puzzling that the stronger effect was observed for all media items, rather than for media items on individuals' experiences. Previous studies have tended to focus on the latter type of story, and have observed the effect to be particularly strong when the individual described engenders in the observer vertical identification (e.g., when the individual is a celebrity)^{12, 13} or horizontal identification (e.g., when the individual is similar to the observer in some way).³⁴ One explanation for the current finding may be that the items on individuals' experiences were in fact more sensitively presented than others in the less differentiated group. Support for this explanation comes from the findings of the Media Monitoring Project, which observed that items that provided a statistical overview of completed suicide or suicide attempts and items that presented legal issues associated with suicide (such as articles on euthanasia or coronial inquests) were particularly likely to be of poor quality and/or to present issues associated with suicide in an inappropriate manner.

To conclude, the study suggests that there may be some association between the number of media items on suicide in a given period and the number of suicide attempts in that period (or the same period shifted by a number of days). Overall, the effect is not overwhelming, but it is strongest for all media items at a lag of about six days.

Chapter 6: Discussion and conclusions

Summary of key findings

The current project involved three studies, each of which combined data on media reporting of suicide from the Media Monitoring Project with data on actual completed or attempted suicide, in order to examine the hypothesis that the former have an influence on the latter. It attempted to fill a gap in current knowledge, by affording particular attention to the question of whether any observed relationship between media reporting of suicide and actual suicidal behaviour is mediated by the quality of media reporting.

Study 1 examined the relationship between media reporting of suicide and actual completed suicide, using all 4,813 media items on suicide retrieved during the 12-month Media Monitoring Project and deaths data for the same period provided by the Australian Bureau of Statistics (ABS). It found that media items were more likely to be associated with increases in both male and female suicide rates if they occurred in the context of multiple other reports on suicide (as opposed to occurring in isolation), if they were broadcast on television (as opposed to other media), and if they were about completed suicide (as opposed to attempted suicide or suicidal ideation). Different item content appeared to be influential for males and females, with an increase in male suicide rates being associated with items about an individual's experience of suicide and opinion pieces, and an increase in female suicide rates being associated with items about mass suicide or murder suicide. Surprisingly, item prominence and quality were not differentially associated with increases in male or female suicide rates.

Study 2 examined the relationship between media reporting of suicide and actual suicide attempts, using a subset of 229 media items from the Media Monitoring Project that had been rated for quality and could be linked to pre- and post- data on hospital admissions for suicide attempts provided by the Australian Institute of Health and Welfare (AIHW). The study found that although a greater number of suicide attempts occurred in the two weeks after a media item was released than in the two weeks before, it was difficult to discern the characteristics of media items that might be positively or negatively predictive of this pattern. Indeed, the single key media variable that was associated with suicide attempts related to item content – media items about an individual's experience of suicidal behaviour were less likely to be associated with an increase in the number of hospitalisations for male suicide attempts in the period immediately following the item.

Study 3 examined the relationship between media reporting of suicide and actual suicide attempts, using a subset of Victorian and national media items retrieved during the Media Monitoring Project and data on presentations to emergency departments for suicide attempts during the same period (provided by the Victorian Department of Human Services (DHS)). The suicide attempt data were provided for each half-monthly period, and the media data were organised into equivalent periods, with lags of 0-14 days. The study found a moderate correlation between the total number of items about suicide and the number of presentations to emergency departments for suicide attempts. The correlation increased in strength as a function of a decreasing lag between the period of media reporting and the period of suicide attempts, up to a six day lag.

Limitations

There were certain data limitations associated with the current project, both in terms of the data on media coverage of suicide and in terms of the data on actual suicidal behaviour. The Media Monitoring Project was a major undertaking, and provided a more comprehensive picture of the way in which the media report suicide than had been available previously, either in Australia or internationally. Nonetheless, because the data were originally collected for a different purpose from that for which they were used in the current project, and because the original project had

funding and time constraints, the Media Monitoring Project dataset had some limitations. Media items were coded by three trained coders, which provided a breadth of data that had not previously been possible, but which did so at the expense of depth of information. So, for example, items about an individual's experience of suicide were all coded in the same way, regardless of the length of the item, whether the individual was identified by name, and the way in which the story was portrayed. To some extent, these issues were addressed by rating items for quality using criteria from Achieving the Balance,⁸ but this could only be done for 10% of items. In other words, the data on media reporting of suicide may have been affected by 'noise', and by the fact that quality ratings were only available for a relatively small sample of items.

With respect to the data on actual suicidal behaviour, the project was constrained by the format in which the relevant bodies were able to provide data. Quite appropriately, the primary imperative for these bodies was to protect the privacy and confidentiality of individuals represented in the various datasets on suicidal behaviour. As a consequence, the data for Studies 2 and 3 were provided in relatively restricted and/or aggregated forms, which limited the analyses that could be performed and the conclusions that could be drawn. In Study 2, data on suicide attempts were only available in two-week blocks, pre- and post- the restricted range of media items for which quality ratings had been made during the Media Monitoring Project. The dataset was further reduced by the fact that the AIHW was reliant on states/territories actively releasing their own data, which did not occur in all cases. In Study 3, data on suicide attempts were also only available in two-week blocks, and these blocks were not referenced to particular media items.

Interpreting the findings

Despite the above caveats, the current project furthers knowledge about the impact of media reporting of suicide on actual suicidal behaviour, particularly in the Australian context. Taken together, the three studies suggest that media reporting of suicide can lead to 'copycat' behaviours. The influence may be particularly significant when the public is confronted with multiple items on suicide, via particularly accessible media. Certain characteristics of media items – such as the item's content and focus – may mediate this effect, but these factors may vary for males and females, and may bear different relationships to fatal and non-fatal suicide attempts.

It is worth commenting here on the issue of quality, since this was a particular focus of the current study. Although no other studies have explicitly examined quality, some have observed that particular features of items regarded as poor quality have been associated with increased rates of suicidal behaviour (e.g., explicit description of suicide methods¹⁹⁻²⁵). As a consequence, these features are often cited in guidelines on media reporting of suicide as elements to be avoided. Although the current project did not find item quality to be predictive of increased rates of suicidal behaviour, this may have been because the definition of quality used was very specific (in that it represented an operationalisation of Australia's Achieving the Balance guidelines), the measure of quality was relatively 'blunt' (at least in its binary form), and the fact that only a relatively small subset of items were rated for quality.

Clearly, the relationship between media reporting of suicide and actual suicidal behaviour is complex. Further work is needed which considers not only the characteristics of media items, but also the characteristics of individuals who extract meaning from these items. Such work should explore the way in which interactions between the characteristics of media items, the characteristics of readers, viewers and listeners, and the characteristics of the social environment may influence the likelihood of 'copycat' behaviours and what the longer-term consequences might be. Without further work to explicate these characteristics and the interactions between them, it is difficult to be clear about the circumstances that promote harmful imitative behaviours (or have a positive preventive impact). The ways in which various audiences – particularly those who may be said to be at risk – might interpret, misinterpret, ignore or resist information about suicide portrayed in fictional cultural forms remains relatively unexplored.

Conclusions

Further research in this area is warranted but, in the meantime, there is a need to err on the side of caution. Mental health professionals and suicide experts should collaborate with media professionals to try to balance 'public interest' against the risk of harm, and to promote opportunities for education. Sensitive reporting of suicide that does not glorify or romanticise it and does not provide visual detail of the exact method is preferable, as are depictions that stress consequences for others, potential hazards of particular methods, and sources of help for vulnerable individuals.

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