POSTVENTION IN ADOLESCENT SUICIDE

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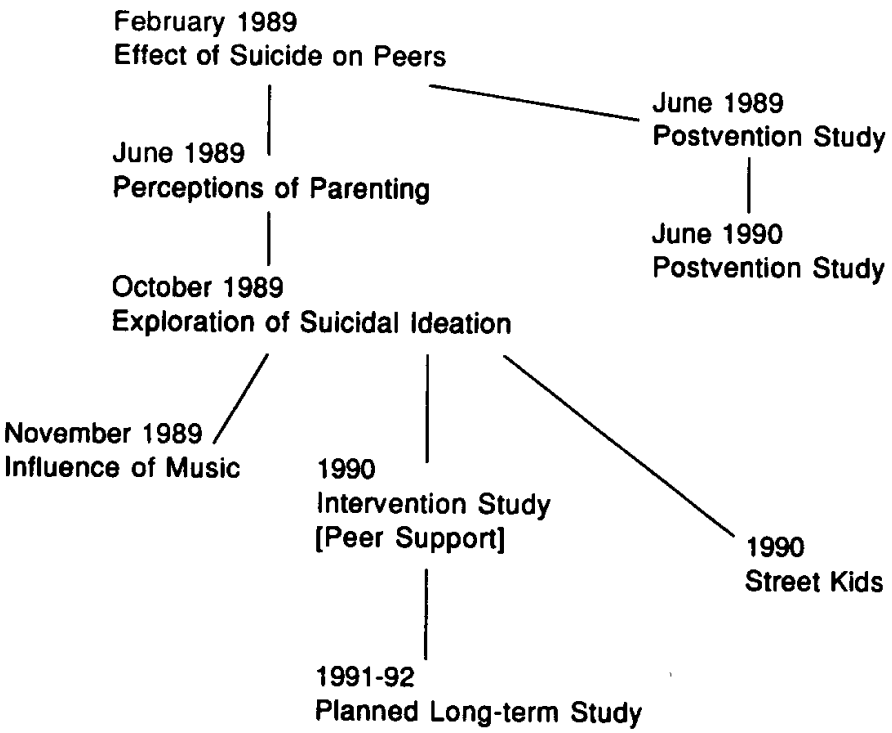
IN 1988, THREE DEATHS OCCURRED WITHIN EIGHT DAYS OF EACH OTHER, TWO students being from the same school. The first boy, a high achieving year 11 student who was 16 years old, took a lethal overdose of a mixture of medications. This followed what seemed to be recurrent depression and some family difficulties, neither offset by apparently good peer relationships and support. The death was followed by appropriate mourning and the funeral at the school, and a memorial service attended by family members, staff and students. The evening after the funeral one of the young pallbearers (18 years old), while attending a party, fell down a staircase and did not survive the consequent head trauma. Two days later, a year 8 boy who was thirteen, pulled the trigger of a loaded gun held to his head as his parents opened the door of his room. Again, the death was followed by a memorial service at the school.

The surviving family members of the two school students were referred separately to Southern Child and Adolescent Mental Health Services (CAMHS) in Adelaide for family grief work and support. The school counsellor, school chaplain and other senior staff were assisted with grieving students and staff over subsequent months by three senior professionals from our organisation and a number of close friends and classmates of the year 11 boy were offered several group sessions by an adolescent support team. Three months later, parents in the school were offered a session on Parenting the Teenager, a thinly disguised attempt to assist parents still suffering from the deaths and anxious about the possible effects on their own teenagers.

These events led not only to a broad network based clinical process within the community, but also to an ongoing series of research projects (*see* Figure 1) aimed ultimately at understanding all the factors which underpin adolescent suicide so that we may intervene to reduce the tragic and increasing loss, in particular, we became interested in completed suicide as a factor in subsequent suicide of others—that is contagion or the 'copycat' effect.

Figure 1

Series of Research Projects



The First Study

The literature on teenage suicide reports some evidence for a completed suicide having an influence on others leading to 'copycat' effects (or contagion) and 'clustering' (Motto 1970; Phillips 1977; Goldney 1989), whether this is a direct local effect or through reporting in the press. There is argument about such an effect and it is not clear how it may be mediated. However, the proximity in time of the deaths (at least two of which were probable suicide) led to the belief that there was a connection and, as a result, there were concerns about the effects of the suicides on other students in the school, particularly those close to the deceased. It was decided to investigate precisely what the effect of the deaths was on those remaining at school.

In early 1989, during the preliminary negotiations with the school, concerns were raised that a questionnaire about suicide might itself influence young people to attempt suicide, particularly those upset by what had occurred. A compromise resulted and it was agreed to investigate only students in year 10 (aged 13 to 17) that is, no student from either year in which deaths occurred. Interpretation of results to be presented should take into account the possible 'watering down' of any effects shown by the students not having had a day-to-day contact with the suicides prior to death. Students from the index school were compared with year 10 students from two other coeducational schools of similar demographic background.

The following hypotheses were tested:

- that knowledge of a completed suicide of a peer is associated with increased suicidal ideation among adolescents attending the same school;
- that knowledge of a completed suicide of a peer is associated with increased depression among adolescents attending the same school.

In addition, we sought to confirm previous reports that associations exist between depression, suicidal ideation and acts of deliberate self-harm in adolescents.

Questionnaire

A composite self report questionnaire was prepared, including questions on behaviour and self-esteem, suicidal thoughts, deliberate self-harm, risk-taking behaviour, drug and alcohol use, and reported exposure to a variety of real and television events. The results from self report risk-taking and drug and alcohol use questionnaires are reported elsewhere (in preparation). The questionnaire included the Achenbach Youth Self Report (YSR)—it seems that numbers are appropriate sometimes, words, sometimes—which relates to the previous six months and contains a 'Depressed' subscale. This was used to provide a measure of depressive thoughts and affect. We used question 18 ('I deliberately try to hurt or kill myself') to provide information on what we have termed 'deliberate self-harm' and question 91 ('I have thoughts about suicide'), for information about suicidal ideation.

Results

Questionnaires were returned by 357 individuals. Response rates of fully completed questionnaires were 92 per cent for the index school and 87.5 per cent for the controls. The mean age of the students was 14 years with a range of 13 to 17. There was no difference in mean age between schools. The ratio of males to females was M159:F 198 (M 44.5 per cent:F 55.5 per cent). There was no significant difference in the ratio between the index school and controls.

Reported exposure to suicide

Overall, 263 students (74.9 per cent) reported that they had not been exposed to completed suicide in the past year, 75 (21.4 per cent) reporting having been exposed once or twice and 13 (3.7 per cent) reporting exposure more than twice. As expected, more students from the index school reported exposure to suicide than students from control schools. Of the index school students, 47.4 per cent reported exposure once or twice in the past year and 8.4 per cent reported more than two exposures. In contrast, 11.7 per cent of the control students reported exposure once or twice and 1.95 per cent reported more than two exposures. Within the control group, more students from the school geographically closer to the index school reported suicide than from the more distant school. There was no significant association between school attended and degree of reported exposure to suicide on television where only 110 claimed no exposure. One hundred and fifty-seven claimed exposure to one or two episodes and 85 claimed exposure more than twice.

Overall, more girls (30.3 per cent) claimed to have been exposed to completed suicide than boys (18.6 per cent), but the difference was smaller for the index school (F 66.0 per cent:M 48.7 per cent) even after excluding the students new to the school in the current

year. In contrast, with television suicide girls in the study overall claimed to have seen fewer episodes than boys (girls 35.8 per cent 'Never' as opposed to boys 25.8 per cent: girls 20.2 per cent 'more than two' as opposed to boys 28.9 per cent).

Depression

Because the Youth Self Report 'depressed' subscales are constructed differently for males and females, data relating to depression is presented differently for boys and girls. The mean depressed subscale score for males was 11.32 with a range of 0-29.

Eight males (5.26 per cent) scored over the 2SD cutoff suggested by Achenbach for case identification and could be considered to be of clinical significance. Analysis of variance showed no significant difference between the means of index and control groups. For females, the mean depressed subscale score was 18.40 with a range of 0-50. Fourteen females scored over the 2SD cut off for case identification and could be considered to be of clinical significance. Analysis of variance suggested there was no significant difference between the means of index and control groups. Of particular note, there was no statistical evidence of higher levels of reported depression in the index school.

Depression and knowledge of a suicide

Both for males and females, a significant difference in mean depressed subscale scores existed for those claiming exposure to completed suicide when compared with those claiming no exposure (*see* Table 1).

Table 1

Depression and Suicide Exposure
Mean Depression Subscale Scores

Sex	No Suicide Exposure	N	Claimed Suicide Exposure(s)	N	F Test	p =
Males	10.63 +/- 5.83	122	14.43 +/- 9.14	28	8.23	<.005
Females	16.77 +/- 9.68	133	22.07 +/- 10.10	58	11.80	<.001

In contrast, no difference in means existed for either males or females between those claiming exposure to television suicide versus those claiming no exposure.

When comparing index versus control groups, a positive association between reported exposure to suicide and higher depression score reached significance only in the control group (*see* Table 2).

Table 2

Depression and Suicide Exposure
Mean Depression Subscale Scores

Group	Sex	No Suicide Exposure	N	Claimed Suicide Exposure(s)	N	F Test	p =
Index	Males	10.60 +/- 5.49	20	13.83 +/- 6.80	18	2.62	.11
	Females	17.55 +/- 8.88	20	19.67 +/- 9.71	33	.63	.43
Control	Males	10.64 +/- 5.92	102	15.50 +/- 10.46	10	5.23	.024
	Females	16.63 +/- 9.85	113	25.24 +/- 9.90	25	15.62	.0001

Suicidal ideation

Of students at the index school, 33.3 per cent claimed to have had suicidal thoughts at some time compared with 24.5 per cent for the controls. The difference did not reach statistical significance. The percentage of males claiming suicidal thoughts was lower overall but the difference did not reach statistical significance.

Overall, 12 of the boys claimed to think about suicide often as opposed to 15 of the girls. Of importance, 'frequent suicidal thought' as a question discriminated 8 out of 14 females defined as depressed (although the other 6 all claimed to have suicidal thoughts sometimes). Further, it discriminated 3 out of 8 males defined as depressed (of the other 5 only 2 admitted to having suicidal thoughts sometimes). Table 3 shows the mean depression subscale comparing 'no thoughts of suicide' with claimed 'thoughts of suicide'. Given that the YSR for girls aged 11 to 18 contains the question on suicidal thoughts as part of the depression subscale, the scores on this one question were removed from the subscale prior to analysis. Analysis of variance shows the difference in means to be statistically significant to both male and female groups to the .01 level (Scheffe).

Suicidal thoughts and reported exposure to suicide

A significant association existed between claimed exposure to completed suicide and reported suicidal thoughts for the group as a whole. Surprisingly the association was greater within the control group, results at the index school not reaching significance.

Table 3

Depression and Suicide Thoughts
Mean Depression Subscale Scores

Sex	No Thoughts of Suicide	N	Claimed Thoughts of Suicide	N	F Test	p =
Males	10.05 +/- 5.89	118	15.74 +/- 6.41	34	23.62	.0001
Females	14.80 +/- 8.25	133	26.40 +/- 9.43	60	74.80	.0001

Deliberate self-harm

Of the total population of students, 4.3 per cent claimed to deliberately hurt or try to kill themselves often and 11.7 per cent claimed to deliberately hurt or try to kill themselves sometimes. There was no sex difference (26 males and 30 females overall claimed to hurt or try to kill themselves at some time). There was no association between deliberate self-harm and being at the index school.

Deliberate self-harm and reported exposure to suicide

A strong association was found to exist between reported exposure to completed suicide and deliberate self-harm. Although more females reported deliberate self-harm and exposure to suicide more commonly than males, the association between these items was not significant for females.

A strong association between experience of suicide and claimed acts of deliberate self-harm existed at control schools but such a statistical association did not exist at the index school.

A strong association existed between claimed experience of suicide on television and deliberate self-harm. As with completed suicide, the association was stronger for males than females. The numbers were too small for between school comparison.

Deliberate self-harm and suicidal ideation

A strong association was found between claimed acts of deliberate self-harm and thoughts of suicide both for males and for females. A similar association was also found for the index group and controls.

Deliberate self-harm and depression

Table 4 shows the mean depression subscale scores comparing to deliberate self-harm with 'claimed deliberate self-harm'. As the question on deliberate self-harm is part of the depression subscale of the YSR for girls aged 11-18, responses to this question were removed from the subscale prior to analysis. Analysis of variance shows the difference in means to be statistically significant for both male and female groups to the .01 level (Scheffe).

Table 4

Depression and Deliberate Self-Harm
Mean Depression Subscale Scores

Sex	No deliberate self-harm	N	Claimed deliberate self-harm	N	F Test	p =
Males	10.31 +/- 5.87	127	16.48 +/- 6.86	25	21.81	.0001
Females	15.95 +/- 8.39	164	28.55 +/- 9.20	29	54.02	.0001

Positive responses ('Sometimes' and 'Often') to the question on deliberate self-harm for females correctly 'identified' 10 out of the 14 cases of depression missing four who denied such acts. A further 19 cases were 'identified' as false positives though six of those had scores in excess of 31.

Similarly for males, positive responses ('Sometimes' and 'Often') to the question on deliberate self-harm correctly identified four out of the eight cases of depression, missing four who denied such acts. A further 20 cases were identified false positives though eight of those had scores in excess of 17.

In summary, although more adolescents reported exposure to suicide at the index school, this was not associated with higher levels of depression or deliberate self-harm despite a slight increase in the number of those with thoughts about suicide, particularly among female students. Hypothesis 1 was sustained while Hypothesis 2 was not. Strong associations were shown to exist between depression, deliberate self-harm, suicidal ideation for the study and comparison groups taken as a whole, thus confirming the previous reports. In addition strong associations existed between these latter three and claimed exposure to suicide for the study and comparison groups taken as a whole, though this was not so at the index school. We believe that the evidence points to a group existing in each of the schools who report themselves as depressed and suicidal. This group could be called 'vulnerable' or

'at risk', and they appear to be more prone to awareness of a completed suicide than other students. We would further postulate that they are then placed at an increased risk for acting out suicidal impulses. We would postulate that what occurred at the index school was that this vulnerable group was supplemented by the large number of other students knowing about the deaths in their school. This additional group certainly then had thoughts about suicide, but levels of depression and acting out of impulses did not occur (or probably, more accurately, did not already exist) thus accounting for the lack of associations with suicidal ideation in results from the index school.

Despite the fact that we had studied year 10 students, it was clear that completed suicide had an impact in increasing the level of suicidal thoughts in other years within the school. The questionnaire appeared to be of value in discriminating those who in addition were part of what we have termed a vulnerable group.

The Second Study

As the results of the first study became available, a completed suicide (a girl aged 16) occurred in another secondary school in Adelaide. Within days, the family had been referred to the author for grief work. As part of their search for understanding of why the suicide might have occurred, they offered the girl's personal diary, an audiotape made on the evening prior to her death, and several hundred scribbled notes passed between students in her class which had been hoarded. The search for understanding with this particular girl is the subject of other work (in preparation), but the postvention work will be presented here.

From the diary and the notes, a wide circle of named friends emerged. This list was discussed with the year 11 coordinator at the school and several other names of close friends or school mates were added. The parents of these 24 students were sent a letter requesting permission to meet with the students for assessment and some grief work. Nineteen students were then asked individually to attend the first session with the author, two Southern CAMHS staff and the year coordinator. At the end of this two-hour group session, the students were requested to complete the questionnaire used in the first study.

It was the combined opinion of the professionals that 10 students were struggling with their grief or for one reason or another might fit into the vulnerable group who might be influenced by the suicide. Scoring of the questionnaire confirmed 4 of those 10 students as being of serious concern. Further individual discussion with the adolescent or their parents showed that one of these students had attempted suicide by gassing on the day after her friend's death, one had a history of attempted suicide and several days subsequent to her friend's death attempted to suicide by overdose, and a third student had been part of a suicide pact with the deceased girl. The fourth student appears to have been severely depressed for some months, but this was most likely related to her having Turner's Syndrome which had left her physical development way behind her peers. Her depression had been exacerbated by the death of what was possibly only a rather distant friend. Parents of the four 'vulnerable' students were encouraged to seek expert counselling help for their adolescents. Parents of the six other students 'diagnosed' as struggling were informed (with the permission of the adolescent) of the results of the group session and questionnaire and told what signs might lead them to suspect the need for counselling. Parents of the other students were reassured that the grief process appeared to be going well.

Subsequently, a number of other students from the same school year identified themselves as struggling, and as having some resentment that they had been left out of the initial process. They were interviewed and completed the questionnaire. None were identified or confirmed as 'vulnerable'.

Teachers from the school who had taught the deceased girl also struggled with the grief process and the complexities of returning the school to a learning environment. A group

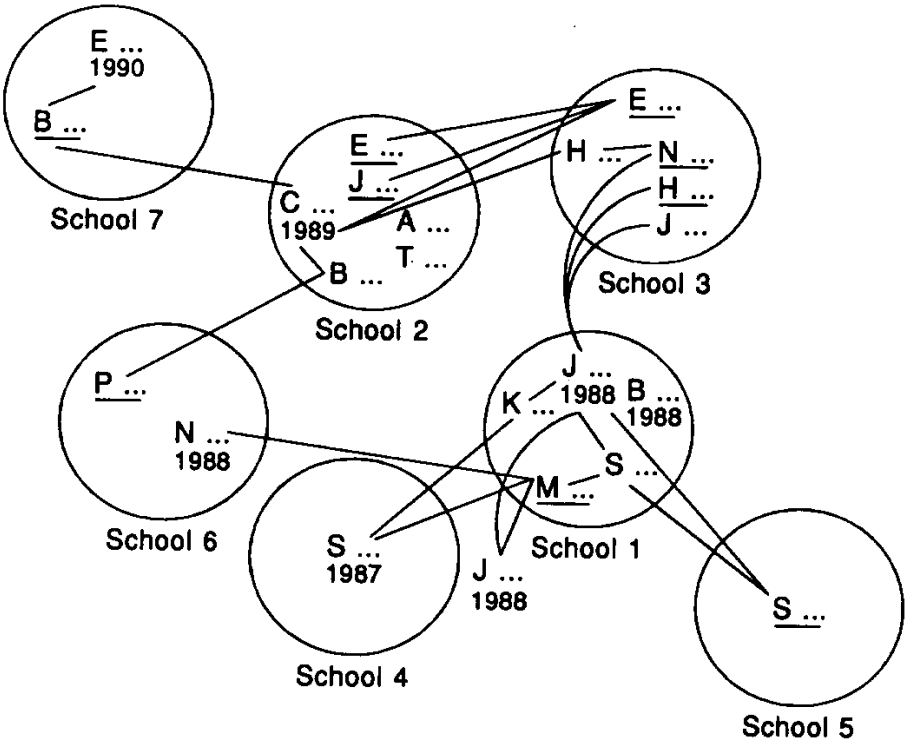
session with 32 teachers and 6 Southern CAMHS staff seemed to be of assistance in this and was followed by some months of monitoring the school environment with the principal and year coordinators. No further attempted or completed suicides have occurred in the school in the subsequent 15 months.

Links

During the second clinical process and in the follow up to the first, it became clear that a number of students from both schools where suicides occurred had known one another either directly or through friends. A number of incidental clinical referrals have added students and other schools to the possible network connections. Figure 2 shows the minimum links which have come to light. The large circles represent different schools. Individual adolescents are represented by single initials (those underlined have been assessed and/or in personal therapy with the author). Dates represent the year of a completed suicide.

Figure 2

Contagion in Adolescent Suicide



S . . . from school 4 (who suicided in 1987) had a sister K . . . who sat behind J . . . in class at school 1. J . . . (who suicided in 1988) had been friendly with N . . ., H . . . and J . . . from school 3 (all from the same class). N . . . attempted suicide after she was dropped by the other H. . . at school 3. J. . . (school 3) also attempted suicide about the same time. E. . . (from school 3) was in the same class as the others and, due to unbearable teasing for her good academic performance, was moved to school 2.

These links are all tenuous. They do not take into account other factors in the lives of the students and there is little evidence that suicide was ever talked about seriously in the groups in which they mixed. M . . . (school 1) and S . . . (school 5), in their individual grief work over the loss of friends, both talked about suicide having been mentioned by several of their friends but, as it were, only in passing.

Conclusions

The deaths from suicide of two students in one school led to an extensive process of grief work with families, friends of the deceased, other students, teachers and parents. Subsequently, the process was reviewed, and research was initiated to attempt to understand the effect of the suicides on the wider school community. It appeared that many students were given to think about suicide after a peer suicides, but only a small group also suffered from depression and/or had a history of deliberate self-harm (including attempts at suicide). The 'vulnerable' group existed in control schools as much as in the index school. We postulated that such a group would be at increased risk for attempted suicide following the death of a peer.

A further suicide in another school offered the opportunity to provide a better more comprehensive process of grief work, part of which was the attempt to define the 'vulnerable' group swiftly so that they could be offered personal help. The use of the group work format combined with a self report questionnaire seems to have been effective in this assessment.

An incidental finding as part of the continuing process was the series of links that exist between adolescents which may in part be influential in thinking about suicide.

Adolescent suicide is difficult to predict. A completed suicide offers the opportunity, however, to support the wide community of those who grieve the loss, and predict those who are vulnerable and at possible risk themselves for attempting or completing suicide.

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