

Effect of the Broadcast of a Television Documentary About a Teenager's Suicide in Israel on Suicidal Behavior and Methods

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Abstract. Portrayals of suicide in the media are controversial because they may impact on suicide rates and methods. The aim of this study was to analyze the effect of the broadcast of a television documentary wherein an adolescent girl is interviewed about her suicide plan and subsequently dies by suicide. National suicide rates during the 8 weeks prior to the program and the 4 weeks following it were compared to the same periods in the previous year. There was no significant difference in the rates of completed and attempted suicides before and after the program. There was a shift toward the method used in the film after the broadcast, but it was found to be nonspecific to that year. A significant decrease was noted in the mean age of suicide attempters in the last promotional week prior to the broadcast compared to the previous year ($p = .032$). These preliminary findings suggest that the repeated televised promotion of a documentary on suicide may raise the risk of suicide in vulnerable populations. Further investigations in bigger populations are needed.

Keywords: Suicide, media, promo, suicide, attempted, adolescence

Introduction

Many authors have suggested that suicidal behavior can be transmitted socially (Kreitman, Smith & Tan, 1970; Steede & Range, 1989; Hawton et al, 1999; Hawton & Williams, 2001). Specifically, suicidal behavior may be learned by a process of modeling and imitation, and children, adolescents, and young adults are more likely to be

affected. Concerns have been raised regarding the role of the mass media in transmitting models for imitation and their consequent effect on suicidal behavior. The findings, however, remain controversial (Berman, 1988; Schmidtke & Schaller, 1998; Goldney, 2001). Well-known examples of the suggestive power of oral and written tales include the mass suicide of the Milesian virgins in ancient times (Singer, 1984), and the dramatic increase in suicide by gunshot following the publication

of Goethe's novel, *The Sorrows of Young Werther*, in the 18th century (the Werther effect) (Phillips, 1974; Phillips, 1985). The phenomenon has also been the focus of contemporary studies. Marzuk et al. (1993) reported an increase in suicides by asphyxia in New York City following the publication of the book *Final Exit*. Some authors showed that newspaper reports of suicides may lead to imitation (Phillips & Carstensen, 1988; Hassan 1995; Hills, 1995), but others failed to confirm this relationship (Pirkis & Blood, 2001).

Television programs and films depicting fictional suicide acts have been shown to influence suicidal behavior in the general public. An episode of the English soap opera *Eastenders* in which a leading character took a drug overdose resulted in an increase in hospital admissions of patients trying to end their lives the same way (Ellis & Walsh, 1986). The popular film *Deer Hunter* is another impressive example, wherein the game of Russian roulette with a loaded gun, which ended in the death of one of the characters, was imitated by dozens of young American men (Schmidtke & Schaller, 1998). Hawton et al. (1999) reported a marked increase in emergency room admissions for self-poisoning in the two weeks following a popular TV drama depicting suicide by paracetamol overdose.

The effects of television reports of real suicidal acts are unclear (Schmidtke, Schaller, & Wasserman, 2001), and there is relatively little literature on the potential impact of documentary films about suicidal behavior. Bollen and Phillips (1982) found an increase in suicide rates up to 10 days after televised reports of a suicide, whereas a later study by Horton and Stack (1984) showed no relationship between the duration of the news coverage of a real suicide and the monthly suicide rate.

On January 29, 2001, Israeli television broadcast a documentary film of an adolescent girl who was preoccupied with suicidal thoughts. The film showed the girl's agony over the question of the meaning of her life and whether or not to end it, and reported her eventual fatal suicide by jumping from a cliff. In the week prior to its broadcast, the film was repeatedly advertised on television in prime time (8:30 PM). In the promo, short scenes from the film were shown, and the voiceover stressed that the protagonist ultimately died by suicide. The measured viewer rating for the documentary was 16.1% (Israel Broadcasting Authority, Official Report, 2002). The film triggered a fierce public debate over whether its showing was ethical and wise, and whether it might have precipitated additional suicides.

The aim of this study was to assess if this program had any influence on the suicide rates, methods of suicide, or demographic characteristics of suicide victims in the general Israeli population.

Methods

The study was based on data provided by the Israel Ministry of Health on suicides and attempted suicides in Israel gathered from all hospital emergency rooms in the country, police reports, and the National Institute of Forensic Medicine. The study included only hospitals where the reporting of attempted suicides was known to be reliable, a total of 34 hospitals nationwide. The number of suicides and attempted suicides in the 8 weeks preceding the broadcast of the film and the 4 weeks following it were counted. Findings were compared to data collected during the same period in the previous year (2000), to control for seasonal effects. For each case identified, we recorded gender, age, and method of self-harm. Cases of suicide and of attempted suicide were analyzed separately. Because the potential effect of a film is not expected to last more than 4 weeks, this was the period chosen for postexposure testing. To allow for a larger number of cases and higher study power, a double-length period was chosen for the pre-exposure control.

Statistical Analysis

The proportion of suicide-related events during the post-broadcast period, stratified by year, gender, and fatality, was analyzed by Pearson chi-squared test or Fisher's exact test, as appropriate. Since all comparisons were 2 by 2 tables, Yates' correction was applied to yield a better approximation for the binomial distribution. Differences in mean age were analyzed by Student's *t*-test. *p* values of 5% or lower were considered significant. The SPSS® statistical package for Windows (SPSS, Inc., Chicago, IL, version 9.0) was used for all analyses.

Results

During the study period, a total of 239 suicidal events were recorded; 143 (49%) suicides were performed by females and 122 (42%) by males; gender data were missing for the remaining 27 (9%). Sixty-four percent of the suicides occurred during the 8-week prebroadcast period and 36% during the 4-week postbroadcast period. Similar distributions were recorded for men and women and for completed and attempted suicides (Table 1). Comparison with the respective periods in the year 2000 revealed no differences in the distribution of suicide events.

During the week immediately following the program (week 9), there were 16 suicidal events, compared to 152 over the prior 8 weeks. A similar ratio (19/153) was cal-

Table 1. Proportion of suicide-related events occurring during the postbroadcast period (weeks 9–12) out of all study suicide-related events (weeks 1–12) by gender and outcome and compared to the same period in the previous year.

		<i>n</i>	Proportion of suicide-related events in postexposure period	χ^2, p
Gender	Female	143	35%	NS
	Male	122	35%	
Outcome	Suicide Attempters	239	36%	NS
	Suicide Completers	3	36%	
Year	2001	292	36%	NS
	2000 (control)	283	40%	

Table 2. Proportion of suicide attempts by jumping in postbroadcast period (weeks 9–12) among all study suicide-related events (weeks 1–12), according to method and outcome.

Suicide-related events in 2001		<i>n</i>	Proportion of suicide-related events in postexposure period	χ^2, p
Method	Jump	9	78%	.023
	Other	283	35%	
Outcome (jumpers only)	Suicide Attempters	2	100%	NS
	Suicide Completers	7	71.4%	
Outcome (nonjumpers only)	Suicide Attempters	237	35.9%	NS
	Suicide Completers	46	30.4%	

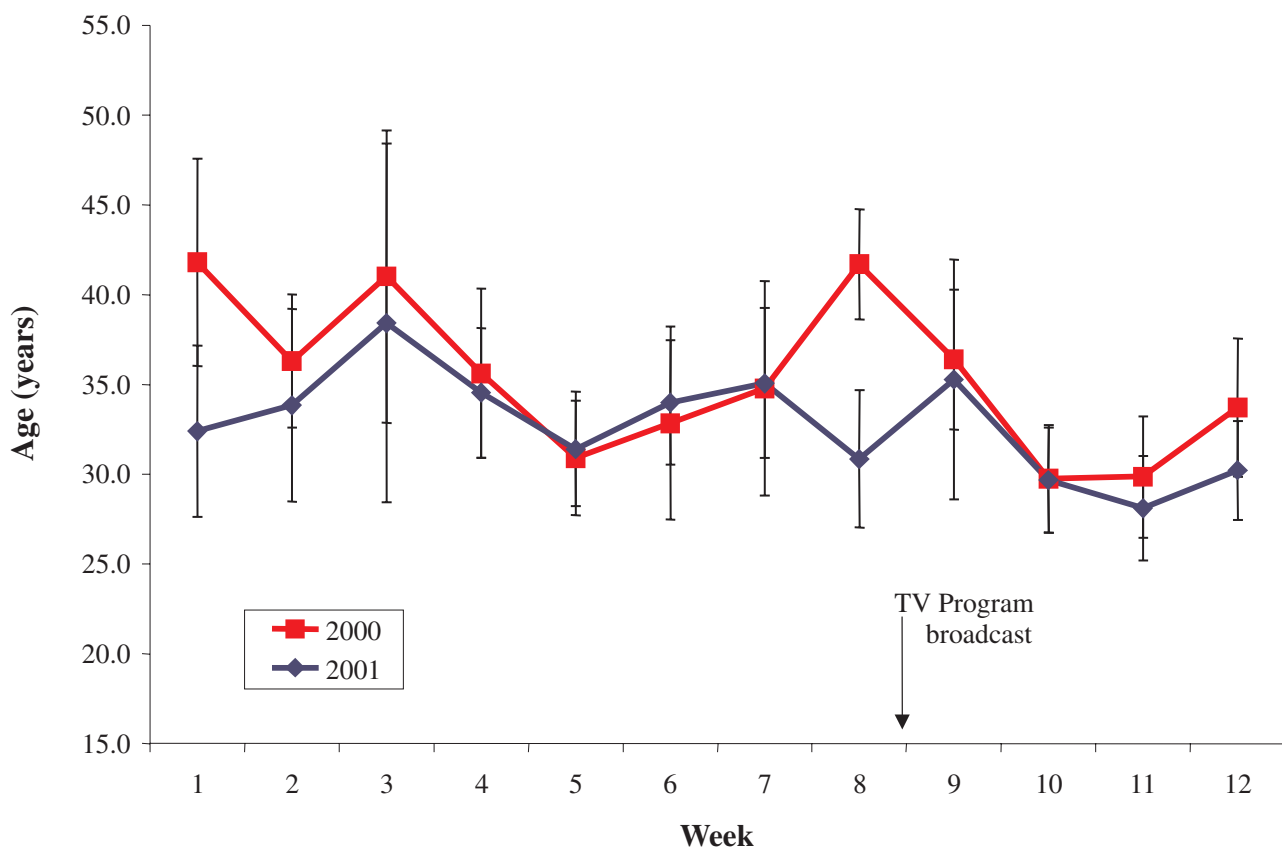


Figure 1. Mean age of persons dying by suicide in weeks before and after television broadcast in 2001 and 2000.

culated for the year 2000. Accordingly, the proportion of suicidal events in week 9 of the total number of suicidal events over the whole period of study was similar for 2001 (6.7%) and 2000 (8.1%). This finding held true even when restricting the data to completed suicides – 3.8% and 4.2%, respectively.

The findings for methods of suicide are shown in Table 2. A significant difference was noted between jumping and other methods in both suicide attempters and completers in 2001 ($\chi^2 = 5.18$, $df = 1$, $p = .023$). Comparison of these findings to the suicide methods used in the corresponding periods in 2000 yielded no significant difference ($\chi^2 = 0.19$, $df = 1$, $p = .66$ for jumping, and $\chi^2 = 0.60$, $df = 1$, $p = .44$ for other methods). Chi-squared assessment of the possible connection of the difference in rates between jumping and other methods with attempted vs. completed suicide yielded no significant difference (Table 2).

Figure 1 shows the mean age of the suicide attempters and completers in the weeks before and after the broadcast in 2001 and 2000. The only week in which a significant difference was observed was the eighth week of the promotion, just prior to the broadcast, for suicide attempters (in 2001 – mean 30.8 years, $SD = 13.2$, $n = 13$; in 2000 – mean 41.7 years, $SD = 14.1$, $n = 22$; $p = .032$). The difference in mean age was 10.9 years (95% CI 1.61–20.19). No significant differences in mean age by gender were noted.

Conclusions

This preliminary report evaluated the influence of a television program about the suicide, by jumping, of an adolescent girl on the rates, age, gender distribution, and methods of suicide (attempted and completed) in the weeks before and after the broadcast of the film, and on the age and gender distribution of the victims. The results showed a significant rise in the use of jumping to die by suicide among attempters in the weeks after the show. However, this shift was not specific to the year 2001; it was similar to the same season in the year before, for both suicide attempters and completers. The power of the present study to demonstrate an increase of at least 10% in the proportion of attempts during the postbroadcast period out of the whole study period was only 81%. Therefore, we were unable to detect minor effects.

Another interesting finding was the significant decrease in the mean age of suicide attempters and completers between 2001 and 2000 in the week before the program was shown. During this week, the promos were repeatedly shown on television, and many viewers were exposed to what was depicted as a “heroic” act of a

young and charismatic victim. The repetitive nature of the promos and their focus on a “heroic” end-point are typical of television advertisements in general, and various theorists in the field of communication have studied them extensively. The power of repetition has been found to be significant not just in terms of memory, but also in imparting attitudes and emotions (Larson, 1986; Severin & Tankard, 1988). Furthermore, the esthetic characteristics of advertisements that make mostly emotional appeals, and their failure to encourage rational, testable, logical assertions (Himmelstein, 1984; Postman, 1985; Postman, 1988), are even more evident in program teasers and promotions.

Our report has some limitations. First, since suicide is a relatively rare phenomenon, surveys in the Israeli population (total 6 million) may have a low power to detect small trends. Owing to the small size effect, our findings should be considered preliminary. Larger populations in other countries need to be assessed to substantiate our observations. Another limitation is the lack of data from a second control year for comparison. Unfortunately, these data are not currently available. A third limitation is the difference in length of the time periods before and after the broadcast. We are also aware that reports on suicide attempts are unreliable, but this is true for all studies of attempts. Lastly, because the study period was divided into units of 1 week (7 days) for the analysis, we did not adjust for day of the week.

In conclusion, our preliminary findings suggest that repeated televising of a promo for a documentary on suicide may raise the risk of suicide in vulnerable populations. The effect may be even greater than that of the film itself: Watching the entire documentary film may also make viewers aware of the many painful aspects and implications of the suicide act, whereas the promotion is brief and dramatic and shows only the end-point. We suggest that media decision-makers should take this issue into consideration. However, further investigations of this issue in bigger populations are still needed.

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