Media influences on suicidal behaviour: An interview study of young people in New Zealand
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Published in June 2011 by Te Pou o Te Whakaaro Nui
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ISBN 978-1-877537-78-3
Acknowledgements

We express our deepest gratitude to the young people who participated in this project. They gave their time and their personal stories, and in doing so have contributed to our understanding of the issue of media and suicidal behaviours among young people in New Zealand.

Many thanks also to Dr Shyamala Nada Raja and Dr Keren Skegg for their review of this report. Thanks to Christopher Kemp and Courtney Macdonald for their assistance with the project in the early stages, and to the busy clinicians who, despite their workloads, still managed to support recruitment for the study.

This research was prepared under contract for Te Pou o Te Whakaaro Nui, the National Centre for Mental Health Research, Information and Workforce Development, by the Social Psychiatry and Population Mental Health Research Unit at the University of Otago, Wellington. It was completed as part of the Ministry of Health’s (2008) implementation of the *New Zealand Suicide Prevention Action Plan 2008–2012*. 
Executive summary

Goal Five of the New Zealand Suicide Prevention Strategy (Associate Minister of Health, 2006) addresses the negative influences that the media may have on suicidal behaviour. The Action Plan provides a framework to support this work, and of particular relevance to this proposal is Goal Seven and its associated actions, which are to expand the evidence about rates, causes and effective interventions for suicidal behaviours. This study contributes to the evidence about the relevance of media to the pathway to suicide for young people.

It is known that certain types of media reports and portrayals of suicide and self-harm can increase the risk of suicidal behaviours in vulnerable people, especially young people. The proliferation and evolution of newer forms of media content, combined with rapid development of the technologies making access, content sharing and person-to-person communication possible at any time and in any place, means that these methods of communication may have some relevance to suicidal behaviours.

This study describes the influences of media on suicidal behaviours, from the perspectives of young people who recently intentionally self-harmed and who were engaged with clinical services. The sample consisted of 56 female and 15 male (N=71) young people between 13 and 25 years of age, of whom 60 per cent were European, 15.5 per cent Maori, 7 per cent Pacific and 8.5 per cent other ethnicities.

The mean recalled age for first suicidal ideation was 12.5 years, and the mean reported age at first self-harm behaviour was 13.7 years. Significant negative events resulting in some form of loss, stress or isolation occurred around the time the study participants first thought of or began to self-harm.

For most, the motive for self-harm was to escape their current situation and gain some form of control. Twenty-seven (38 per cent) intended to die as a consequence of this self-harm episode. Choice of method was associated with intent, with 76.9 per cent of those who used high lethality methods intending to die.

For 28 (39.4 per cent) the act was planned for less than one hour; for 15 (21.1 per cent) planning was between 1 and 24 hours; while 13 (18.3 per cent) had planned for more than a day, but less than a week; fifteen (21.2 per cent) for more than a week. Spontaneity was weakly associated with gender, with males being more likely to plan for longer periods.

Participants were asked to report where they first learnt that people sometimes harm or kill themselves. These sources differed by gender with females citing television news/documentaries, school/teachers and friends while males responded that school/teachers was the most common source. The internet was nominated by only one person. There was no association between age of first learning about suicidal behaviours and type of information source.

Television, movies, the internet and songs and music videos were the most common source of any media exposure to portrayals of suicidal behaviours.

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1 In this report the term ‘suicidal behaviours’ includes self-injurious behaviours with and without suicidal intent
Forty-five people reported having at some time hearing or seeing someone harming or killing themselves in a fictional portrayal, including movies, shown on television. Over half of these recalled seeing the material on TV2, with a particular episode of Shortland Street that featured an overdose cited. Nominating TV2 was strongly associated with use of ingestion (overdose/poisoning) at most recent episode of self-harm. Forty-three participants reported exposure via non-fictional television portrayal of self-harm and suicide, such as news and documentaries.

Forty-six participants reported exposure through movies at cinemas and on DVD. Forty-seven participants reported having heard or seen suicide or self-harm-related material on the internet. There was a weak association between use of a violent method at most recent self-harm episode and reporting internet exposure.

Sixty-six participants used one or more social networking sites, and twenty-seven participants had accessed suicide or self-harm-related material from these sources. Thirty-six participants had actively searched for web content about suicidal behaviours. They were older than those who had not done so. The most common reasons were to find information or get help about problems and to get information about how to harm or kill oneself.

Few participants reported using the internet to meet others who self-harm. Forty-nine participants had been exposed to suicide and self-harm themes via music and music videos. While some felt it had nil or minimal impact, or was a “release” for distressing feelings, a small number recognised some music as “trigger songs”, which led them to self-harm.

All other media were cited much less frequently as sources of exposure to suicidal behaviours. Fewer than half of the participants reported exposure to suicide or self-harm-related material on their mobile phone, most commonly text messages from close friends that included requests for help or offers of support. There were a small number of text communications notifying of the suicide of a friend or family member, including some sent by adults.

Participants strongly felt that media had a key role to play in self-harm prevention, and identified a number of ways that media could help. They asked for clearer warnings on TV programmes and movies that contained disturbing materials and those who found that the images and media acted as triggers for their self-harm behaviour preferred if these were censored before being broadcast.

There was also a strong call for toning down the graphic nature of portrayals of suicide and self-harming in media. Participants also asked for safer reporting of suicides, including reducing the glorified ways celebrity self-harm and suicides were portrayed. They asked for better awareness and support campaigns so that young people were aware of different avenues for seeking help. Some asked for media to show the effects of self-harm and suicides on families; others wanted to see stories of people in recovery who had overcome self-harming.

Our findings are consistent with emerging evidence from elsewhere indicating that cutting is not a behaviour confined to young women. Young people who have harmed themselves, and who are accessing mental health services in New Zealand, appear to be well aware of the lethal potential of some methods of self-harm.
Our finding that young men plan self-harm more than young women, suggests the suicidal process differed between genders in our clinical sample. If this study was replicated it would present an opportunity for consideration of gender-specific interventions and approaches.

Media such as the internet and mobile phone were rare first sources of knowledge about suicidal behaviours, and it appears that at least among young people with clinically significant self-harm, emerging media are used for gaining or sharing information, rather than being a specific risk due to introducing self-harm or suicide as a novel idea to young people.

We suggest cutting behaviours not linked to suicidal intent, for example as a shared social practice among groups of young people, may be differently influenced by contextual factors such as media, from cutting linked to suicidal intent.

Mobile phones were a less common source of material about suicidal behaviours, and the majority of material was shared by others via text messaging. Comparing this with the much lower frequency with which material was received from friends via the internet suggests that the electronic sharing of material about suicidal behaviours is done largely by phone.

The content of some of the text messages was disturbing, given the highly abbreviated and generally context-free nature of texting. However, the qualitative data indicated that, among young people, a single text cannot be seen in isolation, as texting is a dynamic conversational process in which early responses are expected and usually given. Furthermore, texting was portrayed as a major vehicle for young people offering support to one another “in the moment”, and was often followed by supportive phone calls.

Participants saw their use of interactive-media-related technologies, such as mobile phones and the internet, as supports for themselves and others. Non-interactive technologies, such as television, movies, newspapers and magazines, were more limited in that they can only project information or portrayals to the young person, which means there is no opportunity for checking, gaining further information or feedback, or participating in a community, all of which are aspects of more recent technologies that are clearly valued by young people, and which have great potential for prevention.

Those who create fictional material should be encouraged to consider the potential consequences for vulnerable young people. News reporting of suicide and self-harm should adhere to the principles of safe practice.

People have ready access to a wider range of media content on suicide and self-harm than ever before. Much of the content is not monitored or regulated. However, there are still opportunities for prevention through policies and programmes that support education and skill development among young people, so that they become better equipped to manage their use of and responses to such material and to seek help for themselves and their peers when appropriate. The media itself is also a relatively untapped source of potential suicide prevention activity. Young people prize their ready access to information and to diverse ways of social participation. Their level of engagement with media provides us with opportunities to develop innovative approaches to suicide prevention.
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Background

Certain types of media reports and portrayals of suicide and attempted suicide can increase the risk of suicidal behaviour in vulnerable people (for reviews, see Hawton & Williams, 2002; Pirkis & Blood, 2001; Pirkis, et al., 2002; Schmidtke & Schaller, 2000). The greatest influence is probably on the choice of methods used for suicide and self-harm, and the effect appears to be particularly marked in young people, compared with adults in their mid to later years (Phillips & Carstensen, 1988; Stack, 1991). Young people make extensive use of media. A recent study of 8 to 18 year olds in the USA found that, on average, young people in the study spent 7.5 hours per day using media in various forms (Brown & Bobkowski, 2011). Intensive media use can have an impact on teenagers’ health status, with those using the internet for more than 2 hours per day at higher risk of poor mental and physical health, and girls being at greater risk than boys for depressive symptoms associated with high levels of internet use (Belanger, Akre, Berchtold, & Michaud, 2011).

The proliferation and evolution of newer forms of media content, combined with rapid development of the technologies making access, content sharing and person-to-person communication possible at any time and in any place, means that these methods of communication may also have some relevance to suicidal behaviour.

Terminology

As our understanding of suicide and self-harm has increased, we have attempted to use more precise definitions, and terminology has changed. For example, the term ‘parasuicide’ is no longer used. The term ‘suicide’ is relatively easy to define, as a self-inflicted death, with evidence that the person intended to die (American Psychiatric Association, 2003). In practice, however, it is sometimes difficult to establish the intent of the person who has died. The term ‘self-harm’ encompasses a wide range of self-injurious behaviours that do not result in death (Skegg, 2005). Self-harm behaviours can vary between individuals, across time, among subpopulations, and between cultures.

Suicide and self-harm lie on a spectrum of behaviours and their consequences. At one end there is suicide, as defined above. Suicide attempt is where there is self-injurious behaviour without death and where there is clear evidence that the person intended to die. Suicidal ideation refers to thoughts about killing oneself, and suicidal intent is the desire and expectation for a self-injurious act to result in death (American Psychiatric Association, 2003). Self-harm behaviours extend from acts that may leave no visible injury, such as over-exercise, deliberate recklessness or stopping medication, to those with potentially lethal outcomes, such as hanging, jumping from a high place, or drowning (Skegg, 2005).

For a single episode of self-injurious behaviour using a potentially lethal method, the difference between self-harm and suicide attempt lies with the nature of the person’s intent. This is a complex area characterised by a high degree of ambiguity, because intent is known to be highly variable within individuals, including those who have many current risk factors for eventual suicide. The degree of suicidal intent can change from moment to moment, and is commonly characterised by a high degree of ambivalence. However, it is well established that people who engage in self-harm are at significantly greater risk of eventual suicide than those who do not (Hawton & Zahl, 2003).
For the purposes of this study we have used a broad definition of suicidal behaviours that includes self-injurious behaviours with and without suicidal intent.

**Traditional media: television, films, newspapers and music**

A recent comprehensive review of the literature on suicidal behaviours, and of newspapers, television and books, concluded that there was a consistent association between reporting and portrayals of suicide via these media and actual suicide deaths (Pirkis et al., 2010). The studies of newspaper reports demonstrated a dose-response relationship, whereby the greater the coverage, the larger the increase in suicides. Those of television showed strength of association, whereby the effect was most noticeable immediately after the material was aired. The studies of books referred only to non-fiction, but showed that the association was consistent and temporal (i.e. the exposure to the book preceded the suicide). Because of the methodological challenges in conducting such studies, a high standard of proof was required by these reviewers, but despite this, they concluded that accounts and portrayals of suicide in the news and information media can precipitate copycat acts in particular circumstances.

There is some evidence that individuals may initially learn about suicide through the media. In a Canadian study of very young school children, Mishara (1999, 2003) showed that many of the children reported learning about suicide from media sources, especially television. There are no large studies in which young people who have self-harmed have been asked about their first awareness or memories of suicidal behaviour.

The usual approach to studying media influences on suicidal behaviour has been through before-and-after investigations, in which the incidence of suicide or attempted suicide following a media stimulus is compared with the incidence beforehand to determine if there is any indication of a change. Such studies have provided convincing evidence of media influences on suicidal behaviour for reports and portrayals in newspapers (Phillips, 1974), television dramas (Hawton et al., 1999; Schmidtke & Häfner, 1988) and films (Gould, Shaffer, & Kleinman, 1988). It appears that such effects are more likely where media reporting or portrayal is dramatic (Phillips, 1974; Stack, 1987), features details of a specific method of suicide (Ashton & Donnan, 1981; Hawton et al., 1999; Schmidtke & Häfner, 1988), is repeated (Stack, 1987, 2003), and where the media consumer shares demographic characteristics with the suicide model (Niederkrotenthaler, Till, Kapusta, et al., 2009).

The limitation of some studies is that exposure to the media stimuli by those who subsequently engage in suicidal behaviour has not been investigated, but a causal influence has been assumed. In one English study, this was addressed by asking those who presented to general hospitals after self-poisoning whether they had seen a recent episode of a television drama (*Casualty*) in which a paracetamol overdose was portrayed and, if so, the impact it had on them (Hawton et al., 1999). This study confirmed that the TV programme had specifically influenced some people to take overdoses and that the programme had an impact on their choice of method for self-poisoning. The study was not, however, able to examine the potential preventative role that the TV programme may have had amongst some vulnerable individuals, although the investigators were able to show that knowledge about the dangers of paracetamol overdose increased among members of the BBC TV viewing panel who saw the episode (O’Connor et al., 1999).
In a more recent large-scale study of school pupils (Hawton, Rodham, Evans, & Weatherall, 2002), adolescents themselves suggested greater use of television programmes to educate people about how to recognise young people who are in need of help and to provide information on potential help-providers (Fortune, Sinclair, & Hawton, 2008). These young people also suggested it may be harmful for young people who engage in suicidal behaviour to be portrayed as getting attention following which things rapidly return to normal.

While concern has been raised about the possible influence of music (especially certain types of popular music) on suicidal ideation and suicidal behaviour, this has received very limited attention in the research literature (Martin, Clarke, & Pearce, 1993). The only New Zealand study of this issue revealed that a belief is held by some Māori with professional experience of mental illness that music, particularly some rap and hip-hop, is a powerful influence on the sense of disenfranchisement that may contribute to suicide risk among Māori youth (Hirini & Collings, 2005). One recent study of 40 adolescents aged 13 to 18 years who engaged in self-harm found that music helped some young people lift their mood, reduced dissociation and inhibited their desire to harm themselves (Stegemann, Bruggemann-Etchart, Badorrek-Hinkelmann, & Romer, 2010). The lyrical content of many contemporary songs directly mentions suicide and self-harm, and requires further exploration, including understanding the role that different types of music have for a young person who self-harms, and whether or not specific music is used in the lead up to or during an episode of self-harm.

Research to date has largely focussed on the short-term triggering effects of media presentations. Most investigators have assumed that effects do not last beyond a few weeks (Bollen & Phillips, 1982; Phillips, 1974), although some have observed increases in suicidal behaviour over longer periods (Holding, 1975; Schmidtke & Häfner, 1988). It has been suggested that some people may respond quickly to media presentations of suicide, acting impulsively or putting previous thoughts about suicide into action, while others may make a more considered response (Schmidtke & Häfner, 1988).

A recent study examined both the positive and negative effects on suicide rates of reporting on suicide; in an ecological study in Austria, Niederkrotenthaler et al. (2010) found that stories that recounted a suicidal person engaging in adaptive, non-self-harm behaviours and choosing to live was associated with a decrease in the suicide rate. The authors conceptualised this as a “Papageno effect”, drawing on the suicidal crisis of Papageno in Mozart’s opera the Magic Flute (Niederkrotenthaler et al., 2010).

These authors also carried out a relatively fine-grained analysis of media reporting associated with an increase in suicide rates, and found that this included reports of expert opinion pieces, reports debunking suicide myths and those reporting suicide statistics (Niederkrotenthaler et al., 2010). These types of media stories would not have previously raised concern among those working in suicide prevention.

Thus, in addition to potential immediate changes in suicidal behaviour, media influences may also have longer-term effects, for instance by changing attitudes, providing information about methods of suicidal behaviour, or normalising the idea that suicide is an appropriate response to problems. This may be especially the case where media portrayals achieve iconic status. A New Zealand example of this is the film Once Were Warriors, which rapidly achieved this status due to its graphic fictional depiction of life in the Māori underclass, including a scene where a young woman who has been abused is found hanging. The film is regularly described as showing a “real” side of New Zealand, to the point where the phrase “once were warriors” is now used as a shorthand description for multi-problem families.
Rates of young Māori women dying by hanging began to increase at the same time as the film rose in profile.

Furthermore, the potential for media content conveying academic or factual information to have a harmful effect has scarcely been considered. Given the imminent re-development of the New Zealand guidance for media portrayal of suicide, it is important to develop a greater understanding of these issues.

The means by which media portrayal or reporting of suicidal behaviour can influence suicidal acts has also not been thoroughly investigated. For example, rarely have suicide attempters been asked whether specific exposure to media stimuli increased their intention to carry out a suicidal act or influenced the method they chose to self-harm. Two exceptions to this are the previously mentioned study by Hawton et al. (1999) of the impact of an episode of Casualty, which produced evidence of both the programme’s influence on some people to take overdoses and of its impact on their choice of drug taken in overdose. A very recent study in Taiwan compared people who had survived suicide attempt by overdose or charcoal burning, and found that the majority of charcoal-burning survivors reported that they had been influenced in their choice of method by media coverage, compared with the minority of overdose survivors (Tsai et al., 2011). Further examination of the mechanisms underlying such influences is required. Another way in which the media might influence suicidal behaviour is through establishing images in people’s minds, which may be re-awakened at times of stress or depression (Holmes, Crane, Fennell, & Williams, 2007). This has been shown to often be an important part of disorders such as health anxiety, social phobia and agoraphobia (Hackmann & Clark, 1999; Wells & Hackmann, 1993). Images may play a role in self-harming behaviour (Zahl & Hawton, 2004), and this needs to be examined more extensively.

Emerging media and technology

Recently, concern has been raised about websites dealing with suicide and their potential negative influence on suicidal behaviour (Biddle, Donovan, Hawton, Kapur, & Gunnell, 2008), again particularly in young people. The internet is a powerful tool for disseminating information. Still images, video, audio and text can be cheaply and widely distributed with little or no control over the content or recipients. In their review of the effects of media portrayals, Pirkis et al. examined 20 studies of the internet, and concluded that there is mounting evidence of a consistent, temporally-based association between web-based suicide-related content and eventual suicides (Pirkis et al., 2010). However, it has also been suggested that merely demonstrating a probable association is of limited use in progressing our understanding of the link. Given the ubiquity and continuing evolution of the internet and its applications, and the major constraints on limiting its reach, researchers should focus on understanding the complexity of internet use associated with suicide risk (Kemp & Collings, 2011).

Anecdotal evidence on the potential negative influence of the internet on suicide is accumulating (Alao, Yolles, & Aermenta, 1999; Baume, Cantor, & Rolfe, 1997), and the parents of adolescents appear to be becoming less positive about the internet over time (Macgill, 2007). Furthermore, the provision of dynamic content and interactive experiences, and the development of online communities, through chat rooms, bulletin boards, newsgroups and other technologies such as instant messaging, means that there is an emerging platform.
This platform could have a unique role in influencing suicidal behaviour, or providing peer support and possibly helping prevent suicidal behaviour (Baker & Fortune, 2008; Rodham, 2007; Whitlock, Powers, & Eckenrode, 2006), via the propagation of e-media-based subcultures or by simply providing contact with perceived support.

It is important to note, however, that perceived support on the part of the young person may not actually be risk-reducing, as they may simply feel supported in their suicidal wish (Becker, Mayer, Nagenborg, el-Faddagh, & Schmidt, 2004). Because media are increasingly important agents of socialisation for adolescents, being more similar to peers than to other social agents such as family, school or community, there may also be emergent subcultures focussed around particular web content (Arnett, 1995). Of relevance to this, a recent study showed that explicit depictions of people engaging in self-harming behaviours, such as cutting and burning, are common and frequently viewed, with the top 100 such videos being viewed more than two million times and 58 per cent having no content warning (Lewis, Heath, St Denis, & Noble, 2011). The direction of the relationship between suicidality and the internet is not clear.

For example, a recent study of 590 Japanese adolescents (mean age 13.7 years) found that participants with a history of suicidal ideation were five times more likely to access information about suicide on the internet, and twice as likely to report anxiety about not getting replies to emails (Katsumata, Matsumoto, Kitani, & Takeshima, 2008). Cyber-bullying, or the use of various forms of the internet to harass others (David-Ferdon & Hertz, 2007), appears to be of greatest concern among mid-adolescents and girls, compared with boys (Brown & Bobkowski, 2011). A recent national survey of 1,588 10 to 15 year olds in the USA, suggested that adolescents involved in internet harassment also experienced a range of other psychosocial difficulties, such as aggression, isolation from caregivers and delinquent peers (Ybarra, Espelage, & Mitchell, 2007).

At least one prosecution for involvement with cyber-bullying (i.e. bullying via the internet, email and text messaging), which contributed to the suicide of a young person, has occurred overseas (Steinhauer, 2008). There is some mixed evidence on regulatory activity in this area; in Austria, the media coverage of a suicide prevention strategy involving arms control lead to a short-term (1 year) increase in the rate of adolescent suicides by this method (Niederkrotenthaler, T., Till, B., Herberth, A., et al, 2009). It is not known if the speed and high use of technology-based communication has implications for the consideration of contagion in young people, or what role cyber-bullying plays as a stressor among young people who engage in suicidal behaviours.

Online therapy is of increasing interest (Newman, 2004), with the internet and text messaging being used for treatment with some apparently positive results (Rochlen, Zack, & Speyer, 2004). A randomised controlled trial of internet-delivered cognitive behaviour therapy, known as Recovery via Internet from Depression, is currently being carried out at the University of Otago (see www.otago.ac.nz/rid). In addition, some research has examined online peer-to-peer interactions for health concerns, such as depression, eating disorders and diabetes control (Eysenbach, Powell, Englesakis, Rizo, & Stern, 2004).

2 The website gives no author name or date for this reference
However, many of the internet sites accessed by young people are not moderated by professionals in the way that online therapy is, and most web use by young people is not supervised by adults (The New Zealand Internet Safety Group, 2001). A study of 519 adolescents in the USA indicated that 15.6 per cent of males and 20.8 per cent of females had sought help on the internet for emotional problems in the previous year (Gould, Munfakh, Lubell, Kleinman, & Parker, 2002). In New Zealand we are fortunate to have a web-based intervention for young people with depression (the Lowdown: www.thelowdown.co.nz), which is moderated by professionals and has a text and online support service.

A systematic study of internet material on suicide revealed that 10 per cent of hits examined were dedicated suicide sites promoting suicide, many discussing methods (Biddle et al., 2008), and this finding has since been replicated from New Zealand (Collings, Macdonald, Kemp, Fortune, & Hawton, 2011) showing that this is a stable feature of internet content.

There has been no detailed examination of the extent of use of the internet by young people who carry out suicidal acts, or appraisal of its potential influence on self-harm and suicidal behaviours. Due to the rapid expansion of computer-based communication and the common use of mobile phones among young people, consideration of the potential influence of this media needs to be expanded.

A survey of 25,048 students in New Zealand suggested that nearly 90 per cent of young people aged 14 years and older owned or used a mobile phone (International Census at School Project, 2008). The use of text messages in the context of suicidal behaviour, including the use of mobile phones to communicate with peers or support people, before, during or after episodes of suicidal behaviour, the outcome of such communication, and any exposure to information about the suicidal behaviour of friends or acquaintances via text messaging, are not known. This new phenomenon requires investigation.

In summary, relatively little is known about the various aspects of potential media influences on the suicidal behaviours of young people, especially in the New Zealand setting. In particular, although population-level media effects are increasingly well understood, our understanding of the mechanisms underlying these at the individual level is scant.
Study objectives

The overall aim of this study was to describe the influences of media on suicidal behaviours, from the perspectives of young people who had recently intentionally self-harmed and who were engaged with clinical services. Eight objectives contributed to this aim.

1. To describe the emergence of self-harming behaviour, including associations with age, gender and ethnicity.
2. To describe the nature of the most recent (index) episode – its method, recalled intent, expected consequences and duration of planning, and associations with gender, age and ethnicity, and between the method and expected outcome.
3. To describe the frequency of recent suicidal ideation that was not acted upon, and associations with gender, age, ethnicity and method.
4. To describe early sources of knowledge about suicidal behaviours, and age of first learning about them, and associations with gender, age, ethnicity, method and intent to die.
5. To describe the self-reported exposure of young people with known suicidal behaviours to suicide content via a range of media sources, and the simple associations with gender, age at interview, ethnicity and age at first learning that people kill or harm themselves.
6. To describe the self-reported general impact of these exposures on the young people, and the impact on their own suicidal behaviours.
7. To describe the extent of reported interest in media portrayals of suicide and self-harm, and any associations with age, gender, ethnicity or method at last episode.
8. To explore young people’s general views of the links between suicide, self-harm and the media.
Method

Ethical approval was granted by the Multi-region Ethics Committee and the relevant local committees in each district health board.

Design
This is a descriptive cross-sectional study based on a clinical sample of young people from two geographical locations across three district health board catchments.

Setting
The study was set in two urban areas in New Zealand, with data gathered from services in three administrative locations, namely the Counties Manukau, Capital and Coast, and Hutt Valley district health boards. The original plan had been to use Whirinaki Child and Adolescent Mental Health Service in Wellington, Hutt Child and Adolescent Mental Health Service and the Regional Rangatahi Inpatient Unit based at Capital and Coast District Health Board. However, due to slow recruitment at Whirinaki, we had to include more services in the Wellington region. The final participating services were Whirinaki Child and Adolescent Mental Health Service, Wellington Regional Rangatahi Inpatient Unit, Hutt Child and Adolescent Mental Health Service, and Vibe. Vibe is a youth health service based in Lower Hutt, taking self-referrals and referrals from primary care, and running school clinics.

Sample
Participants were 71 consenting young people aged between 13 and 25 years, who presented to outpatient or inpatient child and adolescent mental health services and adult mental health services in the three district health boards, and who had intentionally harmed themselves in the previous 3 months. People were excluded if they had psychotic illnesses or were too unwell to participate in an interview, or if they did not speak English well enough to participate in the interview without an interpreter.

Data
Data was both quantitative and qualitative. We designed a structured interview schedule, which took up to 90 minutes to administer. Participants were allocated a unique study identifier at the time of interview, and no names were associated with any of the data. Quantitative data was recorded manually by the interviewer during the interview, and later entered into SPSS by one of the authors (JW) who also checked for accuracy. All interviews were audio-recorded and professionally transcribed. The transcripts were organised in N-Vivo by question, so that the narrative responses to each question could be retrieved and analysed. This also allowed us to retrospectively construct some variables for quantitative reporting. The digital audio-recordings, transcripts, N-Vivo files and SPSS file were isolated on a password-protected computer in a secure network, and paper-based data has been retained in locked filing cabinets in locked offices.
Procedure
Clinicians in all relevant services across the three participating district health boards were informed of the study and the eligibility criteria.

When potential participants entered the service, the treating clinician approached them and, if appropriate, their parents, with an information sheet about the study. Those who consented to meet the study interviewer to discuss it further then had the opportunity to consider their participation prior to meeting the interviewer, with the opportunity to withdraw via their treating clinician. Written consent was obtained at the time of the interview. Study interviews were timed as closely as possible with the main clinical assessment to reduce participants’ burden from having to repeat their story, and were conducted in a place convenient to the participant. Māori participants were given the opportunity to be interviewed by a Māori interviewer.

All interviews in the Wellington region were done by one interviewer (DS), and interviews in Auckland were done by three interviewers (SF and two trained clinicians from one of the child and adolescent mental health service clinics).

Standard clinical safety procedures were put in place and participants were informed of these at the time of giving their consent. The chief researchers, Professor Sunny Collings and Dr Sarah Fortune, are both experienced senior clinicians who routinely work with people who have harmed themselves. All the interviewers were clinicians with current clinical experience with young people who have harmed themselves. If any concerns about safety or welfare arose during the interview, the case was discussed with either Professor Collings or Dr Fortune and then immediately referred back to the treating clinician. The interviewers were able to access additional clinical supervision from Professor Collings and Dr Fortune.

Sample size and sample accumulation
A pragmatic approach was taken to sample size estimation. This is a common approach in studies such as this, where a singular expected effect size is not known and there is a limited period for data collection. A clinical sample was the only feasible way to obtain participants; a population survey would have been impractical and extremely expensive. Within this constraint, sample size must be based on an estimate of effect size that is meaningful in the context of the study (Hennekens, 1987).

Balancing the budget and time constraints for the study against the need for a robust design, we based our sample size estimation and expected time for sample accumulation on referral data from Whirinaki Child and Adolescent Mental Health Service.

Alpha for tests of statistical significance was set at the conventional 0.05 (Coolican, 1994), meaning that there was a 5 per cent probability of making a Type I error (finding a statistical association in the sample that is not present in the whole population from which the sample is drawn). Power was set at the conventional 0.80 (Cohen, 1988). This means that the probability of finding a significant result for the specified effect size, if the effect exists in the study population, is 80 per cent.
Based on the Chi squared test, 100 participants would yield 99 per cent power to detect an effect size of 0.5 at a 5 per cent level of significance (Cohen, 1988). This is conventionally regarded as a large effect size in psychological research (Cohen, 1988). The lower than anticipated final recruitment of 71 participants still yielded 99 per cent power to detect an effect size of 0.5, but reduced power (71 per cent) to detect a medium effect size of 0.3.

At the time of designing the study, there were around 35 new referrals per week to Whirinaki Child and Adolescent Mental Health Service, with just under half having self-harm histories. We estimated that across all sites there would be up to 20 eligible people per week. Based on previous experience recruiting people between the ages of 13 and 24, we expected about a 33 per cent participation rate, and taking a conservative position, we predicted that a sample of 100 would accumulate over a 7 month period. Due to slower than expected recruitment, we increased the number of services from which we recruited, but despite this, recruitment remained slow and, due to time constraints associated with the research contract, we had to cease recruitment at N=71.

**Data domains and study instruments**

We collected data on:
- demographic characteristics
- emergence of suicidal behaviours and suicidal ideation, exposure to suicidal behaviours among peers and family, and details of the most recent self-harm event
- self-reported exposure to, and perceived impact of, a range of media on suicidal behaviour and suicidal ideation, media sources of first information about suicide or self-harm, music, recent media stimuli, TV, movies, internet, social networking, mobile phones, music, print media and radio.

The interview schedule was largely based on that used in an earlier pilot study (Zahl & Hawton, 2004). It was modified to include further questions about the possible influence of the internet and the use of text messaging, and to reflect the New Zealand context, in consultation with Māori clinicians. Participants were asked to report details of the most recent story or stories on self-harm or suicide that they had been aware of in a range of media channels. This was designed to capture both survey-type data (e.g. yes, no, and other categorical type responses), and narrative responses, both with and without specific prompts.

To foster spontaneous narratives, participants were first asked open-ended questions in each of the topic areas, followed by more closed questions to ensure consistent coverage of topics across participants, for the collection of quantitative data.

Demographic descriptors were age in years, gender, self-described ethnicity, and socioeconomic status determined by NZDep decile. NZDep is a small area index of relative deprivation based on routinely collected census data (Crampton, Salmond, & Sutton, 1997).
Analysis

The quantitative and qualitative analytic processes reflected the study’s primary descriptive purpose. An analysis plan was drawn up outlining which parts of the dataset were to be subject to quantitative and qualitative analysis.

The analysis had three discrete stages: descriptive univariate analyses, bivariate inferential analyses, and the qualitative analysis. Because the sample size was relatively small, regrouping was required for a number of variables. All regrouping was done after inspection of the data, but before statistical testing.

Descriptive univariate statistics, such as mean or median age, or proportion of the sample with a characteristic of interest, were generated to describe the sample. Bivariate inferential analyses were used to ascertain the pattern of associations between socio-demographic characteristics and between socio-demographic characteristics data about various media exposures. For all statistical tests where it was relevant, the two-tailed option was used, as this provided a more conservative estimate of the probability of obtaining the observed result.

The qualitative analysis was conducted using the specific questions as anchor points. For example, responses to the question on the impact of TV fiction were isolated and analysed together. Simple content analysis using a code and retrieve approach was used to generate key themes. These were initially based on an iterative hand-tabulation by SF based on approximately 50 per cent of the sample and then extended by NC. Because the qualitative data is simply the transcripts of the narratives that accompanied the collection of the quantitative data, we did not attempt to develop an abstract interpretation of the data, but to draw out detail and meaning that would illuminate the quantitative analysis, supported by quotations from participants’ narratives.
# Results

## Sample description

The sample consisted of 56 female and 15 male (N=71) young people between 13 and 25 years of age. Further details are summarised in Table 1. Age was as recorded in the clinical file and reported by the treating clinician. Ethnicity was primary self-described ethnicity elicited in the interview. ‘Other’ ethnicity included South African (2), Indian (2), Japanese (1), and Philippino (1). The NZDep Index is presented as quintiles, with higher numbers meaning more deprivation.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Females n=56</th>
<th>Males n=15</th>
<th>All n=71</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>95% CI</td>
<td>16.9; 17.5</td>
<td>16.1; 19.8</td>
<td>17</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>European</td>
<td>38</td>
<td>11</td>
<td>49</td>
</tr>
<tr>
<td>Māori</td>
<td>8</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Pacific</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>NZDep</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (least deprived)</td>
<td>14</td>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>4</td>
<td>14</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>5 (most deprived)</td>
<td>11</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>Study centre</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auckland</td>
<td>19</td>
<td>2</td>
<td>21</td>
</tr>
<tr>
<td>Wellington**</td>
<td>37</td>
<td>13</td>
<td>50</td>
</tr>
</tbody>
</table>

*Percentage of females, males and whole sample with each ethnicity, NZDep and from each study centre.

**Included services in the greater Wellington region.

The parts of the sample sourced from the two centres did not differ significantly by age group, ethnic composition or socioeconomic status.

For some analyses we divided the sample into two age groups: 13 to 15 years, and 16 years and over. Nineteen (27 per cent) of the sample were in the 13 to 15 year old group. We used 16 as the cut-off, as in New Zealand 16 years is the effective watershed age at which many young people have increased freedom to access a range of media without parental consent.

Thirty-three (67.3 per cent) of European participants were aged 16 or over, compared with 10 (90.0 per cent) of Māori, three (60 per cent) of Pacific, and all of the Other ethnicity groups.
Twelve (57.1 per cent) of the Auckland participants and 40 (80 per cent) of the Wellington participants were aged 16 or over, reflecting the different services from which we sourced participants in the two centres.

**Emergence of self-harm behaviour**

Participants were asked to recall how old they were when they first had suicidal ideation, and their age at the time they first engaged in self-harming behaviour.

The mean recalled age for first suicidal ideation was 12.5 years (range 3 to 18 years), with no significant difference between males and females. For the comparison across the four ethnic groups, subgroup sizes were small and therefore we present only the 95 per cent confidence intervals (CI) for the mean ages. The mean ages and 95 per cent CI were: European 12.4 (11.6; 13.1); Māori 12.2 (10.1; 14.3); Pacific 13.4 (10.0; 16.8); and Other 12.8 (9.9; 15.8). There was no age difference between subsamples from the two locations (t=0.24, p=0.81).

The mean reported age at first self-harm behaviour was 13.7 years (range 8 to 24 years). There was no statistically significant difference between the males and females (males 14.3 years, SD=3.6; females 13.5 years, SD=2.3; t=1.05, df=69, p=0.30). Again the four ethnic subgroups were small, so we report only the mean ages in years and 95 per cent CI. These were: European 13.8 (13.0; 14.6); Māori 12.8 (10.8; 14.8); Pacific 13.2 (10.1; 16.3); Other 14.8 (13.2; 16.5). There was a minimally significant difference in age at first self-harm behaviour across the two geographical locations: the mean reported age for Auckland participants was 12.7 years, compared with 14.1 years for Wellington participants (t=-2.05, df=69, p=0.04).

Participants described the events occurring in their lives around the time they first thought of or began to self-harm. All events were negative, resulting in some form of loss, stress or isolation. Participants described breakdown in relationships with parents, siblings and boyfriends. A loss of familial support structures through changes in their environment left them feeling vulnerable, isolated and unable to control any of the events occurring around them.

A lot of frustration, not feeling happy and I think probably a bit of domestic violence and a diagnosis of a terminal illness in my family, my cousin. Everything was pretty crap.

I was feeling very bad about my body, I was very stressed about my marks at school, there was no way I could feel good about myself, I hardly had any friends, I was shy and scared and lonely and just terrified of the other girls, and being bullied at school by the other girls. My self-esteem was really low.

Participants suggested that self-harming was one activity where they had control and that it helped them release some of the negative emotions they were feeling.

I couldn’t take my anger out on other people so I took it out on myself. Then you are left with the scars of it.
The most recent self-harm episode

Participants provided information on the lapsed time since their most recent episode of self-harm, the method used, recalled intent at the time of the act, the expected outcome and duration of planning.

Twenty-one participants (29.6 per cent) had last harmed themselves within the week prior to interview, 25 (35.2 per cent) had done so between 2 to 4 weeks prior, 20 (28.2 per cent) between 1 to 3 months before, and five (7.0 per cent) over 3 months before the interview. There was a statistically significant association between gender and recency of last self-harm episode: females were more likely to have harmed themselves in the previous week, whereas males were more likely to have most recently harmed themselves in the 2 to 4 weeks prior to interview ($\chi^2$=8.53, p=0.03). There was no association between ethnicity or age group and recency of last self-harm episode. However, study centre and recency were associated, reflecting the clinical sources of participants. Of the Wellington participants, 36.0 per cent and 42.0 per cent had harmed themselves in the past week or 2 to 4 weeks respectively, compared to Auckland participants at 14.3 per cent and 19 per cent ($\chi^2$ = 12.95, p=0.002).

The frequencies of methods of the most recent episode of self-harm are shown in Table 2. The ‘Other’ category includes burning, banging head and firearm. Cutting is almost equally common among young men and young women in this clinic sample: 7/15 (46.6 per cent) of males and 27/56 (48.2 per cent) of females used cutting for their most recent self-harm.
For further analysis, we grouped self-harm methods as: ingestion (overdose/poisoning), cutting, violent methods (hanging/suffocating/jumping and shooting), and Other. There was no apparent difference between these groups on the basis of mean age or age dichotomised as 13 to 15 years and >16 years, gender, ethnicity, study centre or reported age at first suicidal ideation.

Participants were asked to talk about why they harmed themselves on the most recent occasion, and what they thought the consequences would be. Using the interview transcripts we coded the responses according to the expressed intent, as: clear intent to die, ambivalent or no intent to die, unsure about their own intent, and questions not answered. For example, a young person who had taken an overdose, but called the ambulance would have been coded as ambivalent/no intent (that is, we set a high threshold for the coding of clear intent to die). Table 3 summarises the frequencies of responses to these questions, showing that intentions were evenly distributed between the intent to die, and ambivalence or no intent to die.

Table 2: Methods of most recent self-harm episode by age group, gender, ethnicity and study centre

<table>
<thead>
<tr>
<th>Method</th>
<th>OD/poisoning</th>
<th>Cutting</th>
<th>Hanging</th>
<th>Suffocation</th>
<th>Jumping</th>
<th>Other</th>
<th>Missing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age group (years)</td>
<td>N  %*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13–15</td>
<td>6 28.6</td>
<td>7 20.6</td>
<td>2 33.3</td>
<td>2 40.0</td>
<td>-</td>
<td>1 33.3</td>
<td>1</td>
</tr>
<tr>
<td>&gt;16</td>
<td>15 71.4</td>
<td>27 79.4</td>
<td>4 66.6</td>
<td>3 60.0</td>
<td>1 100.0</td>
<td>2 66.6</td>
<td>-</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>4 19.0</td>
<td>7 20.6</td>
<td>-</td>
<td>3 60.0</td>
<td>-</td>
<td>1 33.3</td>
<td>-</td>
</tr>
<tr>
<td>Female</td>
<td>17 81.0</td>
<td>27 79.4</td>
<td>6 100.0</td>
<td>2 40.0</td>
<td>1 100.0</td>
<td>2 66.6</td>
<td>1</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>European</td>
<td>15 71.4</td>
<td>23 67.6</td>
<td>4 66.6</td>
<td>4 80.0</td>
<td>-</td>
<td>2 66.6</td>
<td>1</td>
</tr>
<tr>
<td>Māori</td>
<td>4 19.0</td>
<td>5 14.7</td>
<td>1 16.7</td>
<td>1 20.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Pacific</td>
<td>1 4.8</td>
<td>3 8.8</td>
<td>1 16.7</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other</td>
<td>1 4.8</td>
<td>3 8.8</td>
<td>-</td>
<td>-</td>
<td>1 100.0</td>
<td>1 33.3</td>
<td>-</td>
</tr>
<tr>
<td>Study centre</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auckland</td>
<td>4 4.8</td>
<td>13 38.2</td>
<td>1 16.7</td>
<td>1 20.0</td>
<td>-</td>
<td>1 33.3</td>
<td>1</td>
</tr>
<tr>
<td>Wellington</td>
<td>17 81.0</td>
<td>21 61.8</td>
<td>5 83.3</td>
<td>4 80.0</td>
<td>1 100.0</td>
<td>2 66.6</td>
<td>-</td>
</tr>
<tr>
<td>Total for method,</td>
<td>21 29.6</td>
<td>34 47.9</td>
<td>6 8.5</td>
<td>5 7.0</td>
<td>1 0.1</td>
<td>3 4.2</td>
<td></td>
</tr>
<tr>
<td>percentage of sample</td>
<td>N=71</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Column percentages
* N= 70 One participant did not describe method
Table 3: Intended consequences of most recent self-harm episode by age group, gender, ethnicity and study centre

<table>
<thead>
<tr>
<th>Intended consequence</th>
<th>Death</th>
<th>Ambivalent/no intent to die</th>
<th>Unsure</th>
<th>Not answered**</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age group (years)</strong></td>
<td><strong>N</strong></td>
<td><strong>%</strong></td>
<td><strong>N</strong></td>
<td><strong>N</strong></td>
</tr>
<tr>
<td>13–15</td>
<td>6</td>
<td>22.2</td>
<td>7</td>
<td>25.9</td>
</tr>
<tr>
<td>&gt;16</td>
<td>21</td>
<td>77.8</td>
<td>20</td>
<td>74.1</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>7</td>
<td>25.9</td>
<td>6</td>
<td>22.2</td>
</tr>
<tr>
<td>Female</td>
<td>20</td>
<td>74.1</td>
<td>21</td>
<td>77.8</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>European</td>
<td>17</td>
<td>63.0</td>
<td>20</td>
<td>74.1</td>
</tr>
<tr>
<td>Māori</td>
<td>5</td>
<td>18.5</td>
<td>2</td>
<td>7.4</td>
</tr>
<tr>
<td>Pacific</td>
<td>2</td>
<td>7.4</td>
<td>3</td>
<td>11.1</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>11.1</td>
<td>2</td>
<td>7.4</td>
</tr>
<tr>
<td><strong>Study centre</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auckland</td>
<td>6</td>
<td>22.2</td>
<td>8</td>
<td>29.6</td>
</tr>
<tr>
<td>Wellington</td>
<td>21</td>
<td>77.8</td>
<td>19</td>
<td>70.4</td>
</tr>
<tr>
<td><strong>Total for consequence, percentage of sample N=71</strong></td>
<td>27, 38.0</td>
<td>27, 38.0</td>
<td>15, 21.1</td>
<td>2, 2.8</td>
</tr>
</tbody>
</table>

* Column percentages
** Those who did not answer this question were females from Auckland, one of whom used cutting as the most recent method

There was no association between participant gender, age group, ethnicity (grouped as European, Māori and Other) or study centre and intended consequences. The method used in the most recent episode of self-harm was associated with intent to die ($\chi^2=26.9, p=0.001$). Equal proportions of the 27 people who intended to die used overdose or poisoning (37.9 per cent each), compared to only 22.2 per cent who used cutting. On the other hand, of those who used cutting, only 17.6 per cent intended to die. Of the 13 who used high lethality methods (hanging, suffocation, jumping and shooting), 76.9 per cent intended to die.

Participants described their motive for engaging in self-harm as a way of escaping their current situation and gaining some form of control. For some, self-harming was seen as a way of drawing attention to their current situation, in the hope that it would change.
I was doing it to see if my Dad would come back, because if he knew that I was cutting myself because of it then he’d come back.

Feeling helpless was the main one, feeling I didn’t control anything because I didn’t have my own space because I couldn’t do my own thing.

For others, self-harming was viewed as a way of relieving pressure, acting almost as a diversion to current happenings in their life.

Oh how can I explain it, it almost like, it releases any feelings that you’re thinking about, ’cause you don’t feel pain doing it, it’s not till after that you really feel pain.

Some used self-harm with the intention of dying, citing loss of hope and feeling that regardless of what they did, their current situation would not change.

Because I thought that life didn’t really matter and I didn’t cherish things and I didn’t consider the consequences of it and I thought that if I do cut deep enough and die, it doesn’t matter.

We asked about the outcomes people expected from the most recent episode. Of the 69 who answered this question, 40 (58.0 per cent) thought they would die, 14 (20.3 per cent) thought they would experience a release of tension or feel better, seven (10.1 per cent) thought that others would recognise how bad they were feeling, and eight (11.6 per cent) were unsure. These anticipated consequences were not associated with gender, age group, ethnicity, study location or expected outcome.

I thought I would die. That’s what I wanted.

I wanted to finish my life but I was scared of failing to die and I would be disabled.

I wanted to die, I wanted to go to sleep and not wake up. I didn’t want to die in horrible pain. I just felt basically I didn’t want to have ever existed. If I could go back in time and erase me being born I would have done that instead.

Um, just release from, um, yeah, emotion. I, um…yeah, it’s just like a release. Outward expression of inside pain, I think.

Participants were asked about the duration of their planning for the most recent self-harm episode. For 28 (39.4 per cent) the act was spontaneous, with less than 1 hour’s planning; for 15 (21.1 per cent) planning was between 1 and 24 hours; while 13 (18.3 per cent) had planned for more than a day, but less than a week; seven (9.9 per cent) for more than a week, but less than a month; and eight (11.3 per cent) for a month or more.

Using two groups, those who had planned for less than a day, and those who had planned for more than a day, there appeared to be no association between age and duration of planning for most recent self-harm episode (mean age for < 1 day planning 17.0 years, 95 per cent CI 16.2, 17.9; > 1 day planning 17.2, 95 per cent CI 16.3, 18.1).
Duration of planning was not associated with study location, or age group dichotomised as 13 to 15 years and >=16 years. It was also not associated with ethnicity (grouped as European, Māori and Other).

However, duration of planning was associated with participant gender: 66.7 per cent of males had planned their most recent self-harm episode for longer than a day, compared with 67.9 per cent of females who had planned it for less than a day ($\chi^2(1)=5.9, p=0.015$). Of the 38 young women who had planned the episode for less than a day, most (24, 63 per cent) had planned it for less than an hour. We examined whether there was an association between duration of planning and method, grouping method as overdose/poisoning, cutting, high lethality and other methods, and found none.

**Thinking about self-harm without acting**

Participants were asked whether during the previous 3 months they had experienced thoughts of self-harm or suicide, but not acted on them. Fifty-seven (80.3 per cent) participants had experienced this, and among 44 of these, this had been in the past month. There was no association with dichotomised age group, gender, ethnicity, method used at most recent episode, or across study centres.

The young people described a number of strategies that helped in preventing them from self-harming. The most common was to consider the impact their self-harm or suicide would have on their friends and family, feeling it would be selfish and unfair to put their family through such an ordeal. Participants did not want to be a burden for their families, either by completing a suicide or by an attempt that left them with a disability.

> I had friends and family and if I did it I’ve seen the effect it has if someone else dies and I’ve seen how upset everyone else is and I didn’t want to make anybody else upset.

> I did it for my sake just as much for my family because I didn’t want to put the burden on them if I was to do it.

Another approach was to use positive thinking and coping strategies that they had learnt in therapy. Participants appreciated having familial and therapeutic support to help them work through the issues and recover.

> Just thinking that there’s more to life than just harming yourself really badly that you’re going to end up in hospital and just thinking that things will get better and I’ll get through it.

> I’m beginning to talk to people. I’ve been in foster care, been in so many homes, been with so many people like counsellors, social workers and I reckon that letting it out is the way.

**Sources of knowledge about suicidal behaviours**

Participants were asked to spontaneously name the one source where they thought they first learnt that sometimes people hurt or kill themselves, and 65 (52 females and 13 males) responded. The most common sources for females were TV news/documentaries (nominated by 10 females), school/teachers (10), friends (6), cousins/other whanau (5), TV fiction (4), and parents/guardians (4). Movies, newspapers, music, magazines, books, the internet and siblings were each nominated by one or two females only.
For males, school/teachers were the most common source (five), with two males naming cousins/other whanau. All other sources were nominated two or fewer times, with TV fiction, newspapers, magazines, books, the internet and siblings not being nominated at all.

Among the whole sample, 15 nominated school/teachers, 11 named TV news/documentaries, seven named cousins/other whanau, seven named friends, and five named parents/guardians. The internet was named by only one person.

We also provided participants with a list of possible sources of first information, from which they could choose multiple responses. Although clearly only one source could be the actual first source, this question provided us with a picture of the nature and extent of early media exposure to this information. While 23 participants still identified only one source, 13 identified two sources, seven identified three sources, six identified four sources, and 20 identified five or more sources. Sources in the 'Other' category were: “always knew”, “clinical unit” and “Whirinaki”.

Due to the small numbers, for our comparison between sources, we grouped the sources of information as: media, family, friends, school/teacher, and Other. Media included: TV news/documentaries, TV fiction, movies/DVDs, newspapers, music, magazines, books, internet, radio and mobile phone. Family and friends included: parents/guardians, siblings, cousins or other whanau, and friends. School/teachers referred to any source via the formal structures and processes of school. Table 4 shows the mean ages of first learning about self-harm and suicide for each first information source.

---

3 The list was: TV news/documentaries, TV fiction/soaps, movies/DVD, newspapers, music, magazines, books, internet, parents/guardians, cousins/other whanau, siblings, school/teachers, friends, other.
Table 4: Age of learning about self-harm and suicide and reported first source of information on self-harm and suicide

<table>
<thead>
<tr>
<th>Source</th>
<th>Mean (years)</th>
<th>SD</th>
<th>95%CI</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Media</td>
<td>10.9</td>
<td>2.28</td>
<td>9.9; 11.8</td>
<td>27</td>
</tr>
<tr>
<td>Family</td>
<td>9.3</td>
<td>2.87</td>
<td>7.6; 11.0</td>
<td>13</td>
</tr>
<tr>
<td>Friends</td>
<td>11.4</td>
<td>1.81</td>
<td>9.8; 13.1</td>
<td>7</td>
</tr>
<tr>
<td>School/teacher</td>
<td>10.5</td>
<td>3.38</td>
<td>8.7; 12.4</td>
<td>15</td>
</tr>
<tr>
<td>Other</td>
<td>11.7</td>
<td>4.04</td>
<td>1.6; 21.7</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>10.6</td>
<td>2.73</td>
<td>9.9; 11.3</td>
<td>65</td>
</tr>
</tbody>
</table>

We grouped first information sources as: all media; family and friends; and school/teachers/other, and found no association between age of learning about self-harm and suicide and information source (F(2,62)=0.565, p=0.57).

Although there was insufficient data to robustly test for an association, there was a possible gradient in age at interview between those who reported first learning about self-harm and suicide from the media, and those who learnt about it from family, with those reporting learning about it from media being younger at interview. This is shown in Table 5.

Table 5: Age at interview of participants reporting various first sources of information on self-harm and suicide

<table>
<thead>
<tr>
<th>Source</th>
<th>Mean (years)</th>
<th>SD</th>
<th>95%CI</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>18.1</td>
<td>3.3</td>
<td>16.1; 20.1</td>
<td>13</td>
</tr>
<tr>
<td>Friends</td>
<td>17.4</td>
<td>2.5</td>
<td>15.1; 19.7</td>
<td>7</td>
</tr>
<tr>
<td>School/teacher</td>
<td>17.3</td>
<td>2.9</td>
<td>15.6; 18.9</td>
<td>15</td>
</tr>
<tr>
<td>Media</td>
<td>16.9</td>
<td>2.3</td>
<td>16.1; 17.9</td>
<td>27</td>
</tr>
<tr>
<td>Other</td>
<td>14.7</td>
<td>0.6</td>
<td>13.2; 16.1</td>
<td>3</td>
</tr>
</tbody>
</table>

There was no association between gender, ethnicity or study centre, and source of first learning about self-harm and suicide.

We investigated the association between the characteristics of the young person’s self-harm or suicide, and their reported source of first learning about it. The frequencies are shown in Table 6.
For further analysis, self-harm method was grouped as overdose/poisoning; cutting; and high lethality/other, and information sources as any media; family/friends; and school/teachers/other. Source of first information about self-harm and suicide was associated with most recent method. Sixty-three per cent of those who reported first learning of suicidal behaviours from any media had used cutting, compared to 37 per cent of those who learnt via family/friends or school/teacher ($\chi^2=10.84$, $p=0.02$). However, there was no association between first source of information about suicidal behaviours and intent to die at the most recent self-harm episode.

Participants could recall witnessing family or friends engaging in self-harm or dying/having died by suicide. Some were told that killing yourself was wrong, and others felt sick and angry towards those who had died. It wasn’t until those participants began to self-harm themselves that they felt they understood why people self-harmed.

Table 6: Source of first information about self-harm and suicide and method of most recent episode

<table>
<thead>
<tr>
<th>Source</th>
<th>OD/poison</th>
<th>Cutting</th>
<th>High lethality</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Media</td>
<td>8, 44.4</td>
<td>17, 54.8</td>
<td>2, 15.4</td>
<td>-</td>
</tr>
<tr>
<td>Family</td>
<td>6, 33.3</td>
<td>1, 3.2</td>
<td>5, 38.5</td>
<td>1, 50.0</td>
</tr>
<tr>
<td>School/teacher</td>
<td>2, 11.1</td>
<td>7, 22.5</td>
<td>4, 30.8</td>
<td>1, 50.0</td>
</tr>
<tr>
<td>Friends</td>
<td>2, 11.1</td>
<td>5, 16.1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
<td>1, 3.2</td>
<td>2, 15.4</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>18, 100.0</td>
<td>31, 100.0</td>
<td>13, 100.0</td>
<td>2, 100.0</td>
</tr>
</tbody>
</table>

* Percentage for self-harm method

Exposures to specific media

Participants were asked to recall the most recent specific media exposures: television fiction, television non-fiction, the internet, mobile phones, movies, music and music videos, newspapers, magazines, books and radio.
TV exposure - fiction

Forty-five (63.3 per cent) people reported hearing or seeing someone harming or killing themselves in a fictional portrayal, including movies, shown on television. There was no association between reporting such exposure and gender, age at first learning that people harmed or killed themselves, age at interview, study location or method of most recent episode of self-harm. Of the Māori participants, 72.7 per cent reported television fiction exposure, compared to 59.2 per cent of European, and 40.0 per cent of Pacific participants. Forty participants could recall what channel the television fiction had been on: 21 reported seeing it on TV2, 10 on C4, Prime or other services such as Sky channels, seven on Channel Three, and two on TV One. There was an association between people reporting TV2 as the last place they saw TV fiction depicting suicide or self-harm, and use of overdose or poisoning at the most recent attempt: 12 (60.0 per cent) of those who nominated TV2 as the exposure channel used overdose/poisoning at the most recent self-harm episode, compared to two (10.0 per cent) of those who nominated any other channel ($\chi^2 = 10.36, p=0.001$).

A wide variety of programmes were named as the source (see Table 7).

<table>
<thead>
<tr>
<th>Programme name or type</th>
<th>Frequency</th>
<th>%*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shortland Street</td>
<td>10</td>
<td>22.2</td>
</tr>
<tr>
<td>Movies on TV</td>
<td>7</td>
<td>15.6</td>
</tr>
<tr>
<td>Comedy (Seinfeld, Desperate Housewives etc)</td>
<td>5</td>
<td>11.1</td>
</tr>
<tr>
<td>Police procedural drama (CSI, SVU etc.)</td>
<td>3</td>
<td>6.7</td>
</tr>
<tr>
<td>Supernatural drama (Ghost Whisperer, Vampire Diary etc)</td>
<td>3</td>
<td>6.7</td>
</tr>
<tr>
<td>Cartoon (South Park, Family Guy, Simpsons)</td>
<td>3</td>
<td>6.7</td>
</tr>
<tr>
<td>Other soap</td>
<td>3</td>
<td>6.7</td>
</tr>
<tr>
<td>Medical drama (ER, House, Greys Anatomy)</td>
<td>2</td>
<td>4.4</td>
</tr>
<tr>
<td>Sci-fi</td>
<td>2</td>
<td>4.4</td>
</tr>
<tr>
<td>Not remembered/unknown</td>
<td>7</td>
<td>15.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>45</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

*Percentage of the 45 who answered the question

Thirty-nine participants answered the question on whether the exposure had had a general impact on them, with 17 (43.6 per cent) of those responding considering it had.

Of the nine males responding, 22.2 per cent thought there had been a general impact, compared with 50 per cent of the 30 females responding; however, this difference was not significant. There was no association with age or ethnicity, but participants in Auckland were more likely to report experiencing a general effect from being exposed to fictional accounts of suicidal behaviours on television (Fisher’s exact, $p=0.01$). Of the 18 people who had used cutting at their most recent self-harm episode, 10 (55.6 per cent) thought exposure to television fiction had had a general impact on them, compared to 23.1 per cent of the 13 who had used overdose/poisoning, but this difference was not significant.
Two of the 39 who answered this question, both females, thought there had been a specific effect on their self-harming behaviour.

Several participants were able to recall the storyline of the TV fiction in great detail. The majority of storylines were similar to what participants had either experienced themselves or had known of through others who had been through such situations. Instances of people self-harming or dying by suicide in TV fiction seemed to occur following a spate of negative events, such as relationship breakdown, loss of support, and financial problems, and when there appeared to be no other solution.

*It was a big family and everything was going really bad and they were running out of money and stuff. The mum was overdosing on drugs and stuff and going like psycho at her parents and her husband and stuff.*

*It was about a girl that her parents just broke up or something and she suffered from self-harm and she was crying and stuff, and she went into the bathroom, and she cut herself in the bathroom.*

*Just really teenagers having fun I guess but their lives were turning to shit over college and everything and friendships and health problems so it was kind of a general perspective of it all.*

Some participants were able to relate to why the TV fiction characters self-harmed or killed themselves. In-depth knowledge of the programme was helpful in constructing the situation, as were participants’ personal experiences. Others distinguished between real-life situations and those that occurred in the TV fiction, acknowledging that the characters on the screen were not real.

*I think because her dad was like, “You’re a disgrace”. Like, just little words like that, like how my mum says, “You’re useless and good for nothing,” or “lazy and good for nothing”, or blah-blah-blah. It just like, it really brings you down.*

*Probably because she felt like crap. A lot of people get that.*

*Um, she was sad. But I don’t actually think that she has emotions, because she’s just, um, a soap opera.*

The young people did not go into detail about how the TV fiction characters hurt themselves. In most of the cases, the self-harm or suicide event was not shown on TV. Others simply named the method (e.g. hanging) used. Many participants felt that TV fiction could often be one dimensional and failed to portray other more positive aspects of a character’s life.

*They don’t show the whole side of that person’s life as to why they’re doing it and it just, and all you’re seeing is somebody hurting themselves. And one incident that’s happened before it, that’s the only emotion, the only background that you get of it.*

**TV exposure – non-fiction**

Seventy participants answered the question on non-fictional television portrayal of self-harm and suicide, and 43 (60.6 per cent) reported such exposures.
Again, there was no association with gender, age at interview, method of most recent self-harm episode, or study location. Of Māori who responded, 54.5 per cent reported such exposure, compared to 63.3 per cent of European and 40.0 per cent of Pacific respondents, but this difference was not significant. Reported age at first learning that people harm or kill themselves was associated with reporting exposure to TV non-fiction: those who did not report exposure to such material via TV non-fiction reported a mean age of first learning of 11.2 years, compared to 9.8 years for those who had experienced such exposure ($t=2.12$, $p=0.03$).

Thirty-three people answered the question identifying the channel where they had seen the material: 14 had seen it on TV One, four on TV Two, seven on Channel Three, and eight on all other channels. Table 8 shows the frequencies for the named programmes.

<table>
<thead>
<tr>
<th>Table 8: Frequencies of non-fiction programme citation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programme name or type</td>
</tr>
<tr>
<td>-----------------</td>
</tr>
<tr>
<td>News</td>
</tr>
<tr>
<td>Documentary (e.g. 20/20, 60 Minutes)</td>
</tr>
<tr>
<td>Crime investigation</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Unsure, cannot recall</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

*Percentage of the 43 who answered the question

Thirty-nine out of the 43 participants who recalled exposure answered the question on whether it had had an impact on them, with five of the 10 males, and 12 of the 29 females (41.4 per cent) who answered the question considering it had done so.

People aged 13 to 15 years were significantly less likely to report an impact than those aged 16 or over (11.1 per cent versus 53.3 per cent), ($\chi^2=5.02$, $p=0.02$). Fewer thought there had been a specific effect on their self-harming behaviour, with only one (10 per cent) of the males and four (13.8 per cent) of the females answering the question believing this to be the case.

**Movies – cinema and DVD**

Forty-six (64.8 per cent) participants (10 males and 36 females) reported exposure to portrayals of self-harm and suicide through movies at cinemas and on DVD. Equal proportions of those aged 13 to 15 years, and 16 years and over (63.2 per cent and 65.4 per cent respectively), reported exposure. There was no difference between genders, and no association with reported age at first learning of self-harm or suicide.

Of the European participants, 77.6 per cent reported such exposures compared to 45.5 per cent of Māori and 40.0 per cent of Pacific people. There was a significant association between ethnicity and exposure to movies: European participants were more likely to report such exposures than Māori, Pacific or Other ethnicities combined ($\chi^2=11.29$, $p=0.001$). 76.2 per cent of those who used overdose or poisoning at their last episode of self-harm, and 72.7 per cent of those who used hanging or suffocation reported exposure to suicidal behaviour content via movies, compared to 58.8 per cent of those who used cutting at their most recent self-harm attempt. However, there was no significant association.
Table 9 shows the frequencies for particular movies with their restriction ratings and movie genres.

<table>
<thead>
<tr>
<th>Movie name or genre</th>
<th>Frequency</th>
<th>%*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thirteen (R16)</td>
<td>9</td>
<td>19.6</td>
</tr>
<tr>
<td>Girl, interrupted (M rating)</td>
<td>4</td>
<td>8.7</td>
</tr>
<tr>
<td>Thriller genre</td>
<td>5</td>
<td>10.9</td>
</tr>
<tr>
<td>Drama genre</td>
<td>22</td>
<td>47.8</td>
</tr>
<tr>
<td>Unsure, cannot recall</td>
<td>6</td>
<td>13.0</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Percentage of the 46 who answered the question

The mean age of people who reported seeing *Thirteen* was 17.9 years (range 15 to 20 years), and the mean age for *Girl, interrupted* was 20.8 years (range 18 to 23 years).

Twenty-two (50 per cent) of the 44 participants who answered the question on general impact of seeing the movie said the movie/DVD exposure had had an effect on them. These were 33.3 per cent of the nine males and 54.3 per cent of the 35 females who responded. There was no pattern by ethnicity, age, or method at most recent self-harm episode. Of the 44 people who answered the question on any specific effect on their own self-harming, six (13.6 per cent) considered there had been such an effect.

Participants were equally divided on whether or not the movies had an impact on them. Those who felt an impact described it as being left feeling depressed or anxious, wanting to self-harm but not going through with it, and, in the case of two participants, self-harming after watching the movie. Again, participants who most strongly identified with the actors were more likely to relate to the situation.

*Um, it kinda did [have an impact] because I’m like that girl. Because I never speak about my problems unless I’m here and I’m always helping everybody else and, you know. People like me go unnoticed by other people because we’re in the shadows.*

Participants described the storyline of the movies in detail, summarising the plot and the events that led up to the main character harming or killing themselves. The most common plot revolved around dysfunctional families and relationship breakdowns, which preceded the main character’s self-harm. The actors were usually of similar age to the participants, and of either gender.

*Um, it’s about your young average teenager who gets in with the wrong crowd and pretty much just gets screwed over by everyone, and is upset with her home life and doesn’t agree with the way her mum conducts her relationships and things like that, so she cuts herself.*

The majority of the participants strongly identified with the behaviours of the main characters and could relate to their situation, particularly when the movie had a real-life, present day storyline (as opposed to science fiction or horror). Participants described the motive for the self-harming as needing to take control and relieve stress.
He couldn’t cope, he just couldn’t see any hope for his future; I can actually relate to that – you just get to a point when there is no reason to keep on living.

**Internet**

A total of 47 (66.2 per cent) of participants (nine males and 38 females) reported having heard or seen suicide- or self-harm-related material on the internet. Reports of this exposure did not vary by study centre, age or age group, or gender. Of the European participants, 35 (71.4 per cent) reported such exposure compared to five (45.5 per cent) of Māori, two (40.0 per cent) of Pacific and five (83.3 per cent) of Other ethnicities. However, the two-group ethnicity analysis showed these differences to be non-significant. There was a significant association between method at last self-harm attempt and report of internet exposure to content on suicidal behaviours. Twelve (50 per cent) of those who reported no internet exposure to content on suicidal behaviours used overdose/poisoning at their most recent self-harm episode, compared to nine (37.5 per cent) of those who used cutting and three (12.5 per cent) of those who used violent methods.

Nine (42.9 per cent) of those who used overdose/poisoning at their most recent self-harm episode reported internet exposure to content on suicidal behaviours compared to 25 (73.5 per cent) of those who used cutting, and 12 (80.0 per cent) of those who used violent methods ($\chi^2=7.2, p=0.02$). There was no association between age of first learning about self-harm and suicide, and reported internet exposure.

The young people talked about the range of media they had accessed: the three main types of sites were web pages that allowed video uploads, websites with self-harm images, and chat rooms where people discussed ways of self-harming and killing themselves. Unlike for TV fiction, participants did not report detailed storylines, but snapshots of what they saw on websites. Some participants reported coming across live postings of people self-harming or attempting suicide.

*It was just a whole lot of discussions around suicide methods.*

*It was about some guy who was killing himself and recording it. People were watching it and they didn’t call the cops but they thought he was joking.*

Participants were asked how they found the site, and 46 responded (nine males and 37 females). Twenty (43.5 per cent) of these respondents searched for it, 13 (28.3 per cent) saw the link or pop-up on an unrelated page they were looking at, 11 (23.9 per cent) received the link from friends, and two (4.3 per cent) reported other sources (“typed in poetry”, and “just with my sister and saw it”). For analysis, we considered whether people had actively searched for the site or been prompted to click to it.

There was no association between actively searching for a suicidal behaviours-related site and study location or participant gender. Sixteen (45.7 per cent) European, two (40.0 per cent) Māori, one (50.0 per cent) Pacific and one (25.0 per cent) other. Other ethnicity participants who responded to this question reported actively searching for the internet material.

Forty-two people answered the question regarding the perceived impact of the web content they had viewed, with 30 (71.4 per cent) reporting that it had affected them generally.
This reported general impact was not associated with gender, age group at the time of interview, ethnicity, or method at most recent self-harm episode. Fifteen people thought the web material had had an effect on their own self-harming behaviour and again this was not associated with gender, age group, ethnicity or method at most recent attempt.

**Social networking sites**

Participants were asked for details of the social networking sites they used. Sixty-six (93 per cent) used one or more of Bebo, Twitter, Facebook or YouTube. Eight reported using MSN/MySpace, and one each used Lifejournal, Flicker and Story Write, which we grouped together as ‘Other’ sites.

Twenty-five (35.2 per cent) of all study participants used only one of these sites, 16 (22.5 per cent) used two, 21 (29.6 per cent) used three. Table 10 shows the frequencies of reporting use of each site.

*More than one site could be named

**Percentage of the 66 who answered the question

Patterns of use did not vary by study centre apart from YouTube which 63.2 per cent of responding Auckland participants viewed, compared to 34.0 per cent of Wellington participants ($\chi^2=4.69, \ p=0.03$). There was no significant difference in the age or gender of users of the different sites, nor were there differences in age, gender or ethnicity for those using and not using the specific sites Facebook, Bebo, YouTube and Twitter. For sites in the ‘Other’ category, there was a different finding. The mean age of those using ‘Other’ sites was 15.8 (95 per cent CI 15.1-16.5) years compared to 17.5 (95 per cent CI 16.8-18.2) years for other social networking site users, i.e. a statistically significant difference. Furthermore, whereas only 6.4 per cent of responding Wellington participants used ‘Other’ sites, 42.1 per cent of Auckland participants did ($\chi^2=12.4, \ p=0.001$).

Table 11 shows the frequency of use of the various sites by method at most recent self-harm episode.

*More than one site could be named

**One missing response

<table>
<thead>
<tr>
<th>Site name</th>
<th>Frequency</th>
<th>%**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook</td>
<td>53</td>
<td>80.3</td>
</tr>
<tr>
<td>Bebo</td>
<td>38</td>
<td>57.6</td>
</tr>
<tr>
<td>YouTube</td>
<td>28</td>
<td>42.4</td>
</tr>
<tr>
<td>Twitter</td>
<td>5</td>
<td>7.6</td>
</tr>
<tr>
<td>Other sites</td>
<td>11</td>
<td>16.7</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Method</th>
<th>N</th>
<th>Social networking site N, % for method</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>F/Book</td>
</tr>
<tr>
<td>OD/poisoning</td>
<td>18</td>
<td>16, 88.9</td>
</tr>
<tr>
<td>Cutting</td>
<td>33</td>
<td>26, 78.8</td>
</tr>
<tr>
<td>Hanging/suffocating</td>
<td>11</td>
<td>8, 72.7</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>3, 100.0</td>
</tr>
<tr>
<td>Total</td>
<td>52**</td>
<td>38</td>
</tr>
</tbody>
</table>
Participants were asked whether they had seen information, clips or stories about suicide or self-harm on these social networking sites. This included passive looking, as well as seeing as the result of the individual actively searching. Sixty-four participants answered this question, of whom 27 (42.2 per cent) had looked at such material.

Reporting doing so was weakly associated with participant age, with 49 per cent of those aged 16 or over at interview having seen this material on social networking sites, compared to only 20 per cent of those aged under 16 ($\chi^2 = 3.9$, $p=0.04$). There was no association with study centre, gender or ethnicity. Table 12 shows the frequencies of method at most recent self-harm episode for those who had and had not seen such material. Although the proportion of those seeing the material and using overdose and poisoning was lower than for other self-harm methods, this difference was not statistically significant.

Participants were asked whether they had actively searched for web content about suicide or self-harm. Thirty-six (55.4 per cent) of the 65 who responded to this question had done so. Those who had actively searched were older (mean age 18.0 years, 95 per cent CI 17.1-19.0) than those who had not (mean age 16.1 years, 95 per cent CI 15.5-16.8). Only two (16.7 per cent) of those aged under 16 years had searched for such material on the internet, compared with 18 (52.9 per cent) of those aged 16 and over ($\chi^2 = 4.7$, $p=0.02$). However, there was no association between actively searching for web content and age at first learning that people might harm or kill themselves. European participants were more likely to have actively searched than Māori or Pacific participants: 64.4 per cent of European participants had searched, compared to 20.0 per cent and 25.0 per cent of Māori and Pacific participants respectively ($\chi^2 = 4.8$, $p=0.02$). Having searched was not associated with study centre or gender. Although a higher proportion (57.9 per cent) of those who had used overdose/poisoning reported having never searched for sites, compared to those using cutting (38.7 per cent), hanging/suffocation (36.3 per cent), or other methods (33.3 per cent), this difference was not statistically significant.

We asked participants for their reasons for searching for internet material on suicide and self-harm and 40 responded. Table 13 shows the frequencies with which the options were endorsed, for different participant characteristics. People could endorse more than one reason.

### Table 12: Viewing material on suicidal behaviours by most recent self-harm method

<table>
<thead>
<tr>
<th>Method</th>
<th>N</th>
<th>Had viewed material N, % for method</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>OD/poisoning</td>
<td>18</td>
<td>6, 33.3</td>
</tr>
<tr>
<td>Cutting</td>
<td>31</td>
<td>15, 48.4</td>
</tr>
<tr>
<td>Hanging/suffocating</td>
<td>11</td>
<td>5, 45.5</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>1, 33.3</td>
</tr>
<tr>
<td>Total</td>
<td>63</td>
<td>27</td>
</tr>
</tbody>
</table>

* One missing response
Participants could endorse more than one reason. The table below shows the percentage of the characteristic category, e.g., percentage of males answering question.*

Table 13: Reasons for searching suicide and self-harm-related content on the internet by gender, age and ethnicity

<table>
<thead>
<tr>
<th>Reason*</th>
<th>Gender</th>
<th>Age group (years)</th>
<th>Ethnicity</th>
<th>N endorsing reason</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N, %**</td>
<td>13–15</td>
<td>&gt;=16</td>
<td>European</td>
</tr>
<tr>
<td>Get information about my problems</td>
<td>Male</td>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3, 33.3</td>
<td>18, 58.1</td>
<td>4, 50.0</td>
<td>17, 53.1</td>
<td>19, 59.4</td>
</tr>
<tr>
<td>Find information about how to harm or kill myself</td>
<td>Male</td>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3, 33.3</td>
<td>15, 48.4</td>
<td>4, 50.0</td>
<td>14, 43.8</td>
<td>12, 37.5</td>
</tr>
<tr>
<td>Get help for my problems</td>
<td>Male</td>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3, 33.3</td>
<td>14, 45.2</td>
<td>4, 50.0</td>
<td>13, 40.6</td>
<td>14, 43.8</td>
</tr>
<tr>
<td>Get support from people who understand what I am going through</td>
<td>Male</td>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3, 33.3</td>
<td>12, 38.7</td>
<td>3, 12.5</td>
<td>12, 37.5</td>
<td>14, 43.8</td>
</tr>
<tr>
<td>Meet other people who harm themselves</td>
<td>Male</td>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1, 11.1</td>
<td>7, 22.6</td>
<td>1, 12.5</td>
<td>7, 21.9</td>
<td>7, 21.9</td>
</tr>
<tr>
<td>Other</td>
<td>Male</td>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3, 33.3</td>
<td>7, 22.6</td>
<td>2, 25.0</td>
<td>8, 25.0</td>
<td>9, 28.1</td>
</tr>
<tr>
<td>N for category</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>31</td>
<td>8</td>
<td>32</td>
<td>32</td>
</tr>
</tbody>
</table>

*Participants could endorse more than one reason
**Percentage of the characteristic category, e.g., percentage of males answering question

‘Other’ reasons for searching for content on this topic were: “because it’s epic”, “curiosity”, “to get information about reality”, “just the general excitement of self-harm”, “look for experience about self-harm”, “for a laugh”, “just bored”, “to hear other people's story”, and “to support others”.

There were no statistically significant associations between participant age at interview, gender, ethnicity or study centre, and endorsing any reason for searching for suicide-related content on the internet.

Numbers were too small to robustly test for any association between more differentiated methods at last self-harm episode and reason for accessing suicidal behaviour-related content on the internet. Inspection of the data showed that of the 17 participants who reported using the internet to get help for their problems, nine (52.9 per cent) had used cutting, compared to four (23.5 per cent) for overdose/poisoning, and four (23.5 per cent) for those who had used hanging/suffocation.
Of the 21 who used the internet to get information about their problems, 14 (66.7 per cent) had used cutting, compared to three each for overdose/poisoning and hanging, and one for suffocating.

The highest proportion of people using the internet to get support from others was among those who had used cutting at their most recent self-harm episode: this was 10 out of the 15 respondents (66.7 per cent), compared to three for overdose/poisoning, two for hanging/suffocating, and none for any other methods. The proportion of people using the internet to meet others who self-harm was uniformly low for all methods at most recent episode.

Half (50.0 per cent) of the eight who used the internet for this purpose had used cutting. Re-grouping methods into violent/high lethality versus all others showed a higher proportion (6/9, 66.7 per cent) of those using violent or definitely potentially more lethal methods, such as hanging and jumping, had looked for information about how to harm or kill themselves, compared to those who had used overdose/poisoning or cutting (12/31, 38.7 per cent). This was not statistically significant, however.

Participants felt that there were a number of reasons why people posted images and videos of self-harming on the internet. Due to the wide-ranging audience that the internet could reach, participants felt that the postings were primarily from attention seekers and were intended to shock fellow viewers. Some participants felt that they did not know why people would post such items online. Both images and video postings sometimes contained graphic scenes of self-harm and violence. While some participants were able to watch these in detail, others felt too frightened to continue watching. Some felt that by posting such images and videos, people experienced escapism and a sense of release.

Attention. Especially if they put it on a website.

It’s like people like, shot themselves in the head and all blood everywhere, brains and stuff. I don’t know, I didn’t go on the website again, I was too scared to find out.

To just get some relief and escape from what was happening at home.

However, the internet also allowed like-minded individuals to come together at times when they experienced hopelessness.

I just think they see no hope for the future and when you associate with that kind of group you – I’m not really associated with them anymore but there was a big group and they were just trying to kill themselves. I think people who are quite suicidal attract each other and I think one person does that and one feels the grief and thinks, hey.

Participants identified a range of reasons why they were interested in the internet sites. These included curiosity, excitement at viewing images, finding the best methods and, most importantly, connecting with like-minded people they could relate to, to reduce feelings of isolation.

Just sort of trying to find people who understand and know what I am going through in general.
Um, it feels like when I read it, it’s, it feels like I’m not alone in it. Because sometimes, like, I feel like I’m the only one doing it and, like even though I know I’m not, but, it just helps me understand why I’m doing it and what I’m going through and stuff.

We asked participants about the effects looking at such material had had on them. Forty-six answered this question, with 28 (60.9 per cent) considering that there had been an effect on them. This did not vary by study centre, participant age at interview, or gender. While only 25 per cent of Māori participants considered the material to have affected them, compared to 62.9 per cent of European and 71.4 per cent of Other ethnicities, this difference was not statistically significant. There was no association with method at last self-harm episode.

**Mobile phones**

We asked about the most recent time participants heard or saw anything about self-harm or suicide on their mobile phone. All 71 responded, with just under half (30, 42.3 per cent) of participants ever having had such an experience. There was no association with study centre, participant age at interview, gender, ethnicity or age of learning that people self-harm or kill themselves. Just over half (55.9 per cent) of respondents who had used cutting at their most recent episode reported having had exposure to material about suicide or self-harm via their mobile phone. This compared to 33.3 per cent and 30.8 per cent of those who had used overdose/poisoning and any other methods, a non-significant pattern.

Table 14 shows the frequencies of different types of exposures via mobile phones.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text message</td>
<td>26</td>
<td>86.7</td>
</tr>
<tr>
<td>Pxt</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>Internet</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>Video</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

‘Other’ modes of exposure included a phone call from a friend’s mother to say the friend had died by suicide, and a phone call from a boyfriend in which suicide was discussed. Because of the small numbers we were unable to do in-depth analyses of patterns of exposure to the different mobile phone modes. However, for text messaging, there was no variation by age at interview, study centre, participant gender or ethnicity, or method at last episode.

The same 30 participants answered the question on the source of the phone message or other content. Table 15 shows the different sources.
Those for whom the source was via an ‘other relationship’ received the material from a friend’s mother, from non-school acquaintances, or from former patients from the same mental health service as the participant. Again, small numbers limited the descriptive analyses we could perform, but receiving the material from a close friend was not associated with gender, ethnicity, age, study centre or method.

Twenty-nine people answered the question about the content of the text message they were referring to. One reported it had been about people bullying the message sender, 19 (65.5 per cent) reported that it had been information about someone harming themselves, four (13.8 per cent) that it was a message of support to stop me harming myself, and nine (31 per cent) said it was another kind of message. This ‘Other’ category included: information that a best friend had hung herself, that a friend of a friend had died after jumping from a bridge, that an uncle had hung himself, a friend having suicidal thoughts, asking for support for a suicidal family member, someone saying they hated their life, a picture of a girl showing her self-inflicted cuts, a group of friends wanting to kill themselves, and a friend thinking about self-harm. Among the 19 who reported that it had been information about someone harming themselves, there was no association with age, gender, study centre, or method. Among the six Māori who responded to the question on the content of the text message, two (33.3 per cent) reported that it had been information about a person harming themselves. This compared to 14 (73.7 per cent) of the European and three (75 per cent) of all other ethnicities, but these differences were not significant.

Thirty participants answered the question on whether receiving the message had had an impact on them, with 18 (60.0 per cent) considering that it had. This did not vary by age, gender, method at most recent episode, or study centre. However, it did vary significantly by ethnicity, with only one (16.7 per cent) of Māori reporting being affected by the message, compared to 17 (70.8 per cent) of European and other ethnicities combined (Fisher’s exact p=0.02). Only seven (13.3 per cent) considered the message had a specific effect on their self-harm. Although numbers were small, this did not appear to have a significant association with age, gender, ethnicity, or method of self-harm at most recent episode.

While a small number felt like self-harming or killing themselves after hearing of others’ experiences, most felt guilty that they had perhaps not helped their friends as much as they could have. Participants felt torn between wanting to help and support their friends, and needing to take care of their own health and wellbeing.

Well if she killed herself I would have killed myself because she is like my best friend.

<table>
<thead>
<tr>
<th>Source</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Close friend</td>
<td>20</td>
<td>66.7</td>
</tr>
<tr>
<td>Boyfriend/girlfriend</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td>Acquaintance at school</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>Family/whanau member</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>Other relationship</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td>Someone unknown to participant</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>
Um, not on me hurting myself, but I did feel extremely bad for them and wished I could have helped more. But at the same time I think I needed to keep myself at a certain distance to keep myself safe and still level-headed enough that I could be there if I needed to be but, not engrossed in it where it could lead me to heading down the same track.

Participants mainly used text messaging to communicate with their friends. Text messages were usually sent either when people were having self-harm thoughts or just after they had self-harmed. Participants normally received a reply, in which their friends tried to prevent them from self-harming or offered support to help stop the self-harm.

Text messages were followed up with phone calls if participants wanted to talk for longer and offer support. Some participants provided counselling and put support plans in place to prevent their friends from self-harming. At no point did the participants appear to disclose these incidents to other people or seek external support or advice. Once participants felt that they had reached the limit of ways they could help, as a gesture of self-care, they asked their friends not to inform them if they ended up self-harming, regardless of having plans and support structures in place.

That was me texting one of my friends, I was saying I’m going to hurt myself. I sent it to one person, a friend: “Yes, I harmed myself – just a few cuts”. She responded, “don’t be an idiot, I love you, don’t do that.”

I text my mates and help them through it whenever they want to kill themselves. I stop them from doing it. My mate was cutting herself, saying nobody likes me, I should just give up living and stuff. She was in Taranaki and so I talked to her about all the good stuff in life and that I will be seeing her soon. And there’s heaps to look forward to when you are alive but nothing when you are dead.

I called them and sorta broke it down, put a plan into action, stopped them from doing it, you know. Made them remove all objects, stay in safe environments and stuff like that. And if they needed to, told them to call me back and to make sure they kept safe. And if they didn’t think that they could, I gave them crisis phone numbers and things like that.

And then I told them if they did do it not to tell me because I didn’t want to know, and I wanted to be in my bubble where they didn’t.

**Music – songs and videos**

We asked participants about the last time they heard about or saw someone harming or killing themselves in music or on a music video. Seventy-one people answered this question, of whom 49 (69 per cent) said they had. This was not associated with study centre, age, gender, ethnicity, method of self-harm at most recent episode, or age of first learning that people harm or kill themselves.

Participants described a number of songs and music videos, featuring both male and female artists. Although some had quite vivid recollections of the themes of certain songs, they did not readily recall the names of specific songs or artists in the same way as films had been recalled. Few participants recalled details of when they heard the song, method of self-harm in a song, or specifically what it was about.
The storylines were similar to that of feature-length movies, but packed into a few minutes of song and music. Participants felt the storylines were more “raw,” “disturbing,” and “brutal”, and dealt with issues such as bullying, murder, rape and suicide. Participants were able to relate to the music storylines, if they felt it was similar enough to their own lives.

It’s about a boy, at first it’s about a boy just wanting his father or parents, you’ll never be good enough for him, nothing he does is right and he just wants to go and sit in his room with the radio turned up so loud no one can hear his screaming and then it’s like – “welcome to my life”. It’s just basically going on about his parents, and how hard his life is at school and he doesn’t think he will ever be good enough for his parents and stuff like that. I feel like that with mine.

The motive for self-harming or suicide in a music video was described as a way of people expressing their feelings and feeling better about themselves. Such responses were more likely from participants who were able to relate to the songs. Participants described the music as being able to affect their mood and emotions and, in some instances, influence their self-harming behaviour.

When you are listening to music, music does kind of judge the mood you are in I guess – if you are full of shit it might make you better or it might make you feel worse, you would usually feel the emotion. You can really feel the emotion in the way that they sing about it, and the way they put things.

Participants described how pervasive self-harm behaviours were in music videos and how such lyrics had been around for a number of years. While some felt it had nil or minimal impact, others recognised some music as “trigger songs”, which led to them self-harm. Some viewed listening to the music as a release in itself, which prevented them from using self-harm as a release option.

Every single band today has at least one song about hurting themselves even bloody Johnny Cash, he sang about that. So this isn’t a problem that’s only just started in 2000 – it’s 70s or 80s, it’s not really a fad or a ... it’s just something that happens. There are heaps of bands; I wouldn’t bother trying to name them all because you would need a couple of books, not just a piece of paper.

Music has never influenced me to do something – it’s been a release. It makes me understand how I feel. I can listen to it and sit and cry and play it over and over again but it means I am not going to do it because I’m getting the release.

Of the 49 who had heard or seen such material, 25 (51 per cent) felt it had had some sort of general impact on them. This varied by age group, with 22 (61.1 per cent) of those aged 16 or over reporting that a song or music video had had a general impact on them compared to three (32.1 per cent) of those aged under 16 years (χ²=5.52, p=0.01). It also varied by study centre, with only three (20.0 per cent) of the Auckland participants reporting such an effect, compared with 22 (64.7 per cent) of the Wellington participants (χ²=8.32, p=0.004). However, there was no association with gender, ethnicity, or method of self-harm at most recent episode. Regarding specific effects on their self-harm, there was again a difference between centres, with only one (7.1 per cent) Auckland participant reporting such an effect, compared to 13 (37.1 per cent) of Wellington participants (Fisher’s exact, p=0.03). However, there was no difference between age groups, genders, ethnic groups, or self-harm methods.
Newspapers

Eighteen of the 71 (25.4 per cent) respondents recalled having read about suicide or self-harm in the newspaper. Few could recall the name of the paper or exactly when it had been, even to within a few months. Most of the storylines from newspapers were reports of people dying by suicide.

Participants were very vague on the details and appeared not to have read the full article, for example: “I didn’t really read the article, I just saw the front cover ‘coz I couldn’t be bothered reading it.” Most of the stories they recalled were about teenagers or young adults. Participants were unsure of the motive behind the incidents. This may have been because they had not read the article. Participants who had read the article felt they could identify with the people who had died, drawing parallels between their lives.

She [the person who died] was depressed by the fact that her husband left her and she felt, like I can relate to as I have had one serious relationship in my life and that’s it and obviously I’m not married.

There was no association between reporting seeing such stories in the newspaper and age at interview, ethnicity, method at most recent attempt, age at first learning that people harm themselves or die by suicide, or study centre.

Participant gender was associated, however, with seven (46.7 per cent) males reporting such exposure compared to 11 (19.6 per cent) of females (Fisher’s exact, p=0.04).

Seventeen people answered the question on the general impact of this exposure, with 10 (58.8 per cent) saying there had been an impact. This was not associated with age, gender or study centre, and numbers were too small to test for associations with ethnicity and self-harm method at most recent episode.

With respect to instances where insufficient information had been supplied in the newspapers, participants were either unable to think of what had happened, or speculated on what they thought may have occurred. Reading about the incidents made some of the participants feel sad, particularly if they knew the person who had died or could relate to them, for example: “I dunno, she must’ve weighted herself down, maybe she tripped and hit her head.”

Regarding specific impact on their own self-harm, only two (11.8 per cent) of the 17 considered they had been affected. Most participants believed that reading about people dying by suicide in the newspapers had nil or minimal impact on their own self-harm, except one who felt like copying the method described: “I kind of remember wanting to try it out.” Due to the small numbers, it was not possible to test for associations between this impact and other factors.

Magazines

Eighteen (25.4 per cent) of the 71 participants had been exposed to information about someone harming or killing themselves via magazines. These were typically celebrity or women’s gossip style magazines for which few could recall specific titles or when they saw the material. Auckland participants were more likely to have seen material in these fora, at 10 (47.6 per cent), compared to the eight (16.0 per cent) from Wellington ($\chi^2 =7.8$, p=0.005). Age, gender, ethnicity, self-harm method at last episode, and age at first learning that people harm or kill themselves, were not associated with this exposure.
The storylines in magazines were real-life stories of celebrities and everyday people. Stories involving celebrities were normally written posthumously and involved much speculation around the reasons behind the suicide and the events leading up to it. Stories featuring everyday people were mainly stories of a person’s self-harming behaviour and subsequent journey to recovery.

Um, she started self-harming when she was 18 and I think she was 22 at the time when she told everyone about her story. And she just, um, spoke about why she did it and how she got help and, um, was just about, like, what she went through.

Of the 18 who had seen such material in magazines, 10 (55.6 per cent) said there had been a general impact on them. This was not associated with age, gender, method or study centre. However, European participants were more likely than other ethnic groups to report general impact from magazine stories (nine, 75 per cent) compared to one (16.7 per cent) (Fisher’s exact, p=0.03).

Participants felt that they understood the motives behind the people self-harming or killing themselves from reading the magazine article. Motives of everyday people’s self-harming were easier to relate to, while celebrity cases allowed room for speculation and intrigue, including about the method and its effects.

He [celebrity] died of overdosing on psychotic drugs and that makes me think of me, if I got the right combination of psychotic drugs would that work and I have always been interested in what it was he took.

Reading about people’s self-harm and suicide experiences made most participants feel sad. Most compared their situation to that of celebrities and everyday people. While some participants felt that they understood the pressures and demands on celebrities that led to self-harming, others thought that celebrities engaged in such behaviours for attention-seeking reasons. Stories of everyday people were much easier to relate to, and in most instances stopped the participants from self-harming.

Well, it made me think like, about if I’d still have scars in the future and like, about that would affect me and stuff, because they were talking about their careers and things, and yeah.

Four (12.2 per cent) of the 18 respondents to this set of questions stated that reading the magazine material had affected their own self-harm. These numbers were too small to do any further statistical analysis.

Books
Twenty-eight (39.4 per cent) of participants had read of suicidal behaviours in a book. This was not associated with participant age, gender, ethnicity, method used at most recent self-harm episode, age at first learning about suicide or self-harm, or study centre.

The storylines in books participants read usually involved characters of similar age. The characters usually came from dysfunctional families and had experienced significant abuse and violence. Self-harm was used
as a coping mechanism; when the situation became worse, the characters attempted suicide. Participants felt they could identify with the characters and the issues highlighted in the books.

> It was about this boy who was having a hard time at school and stuff, with people. So he did it, he cut himself to make himself feel better.

Participants felt that the characters from the books would have felt depressed and unhappy with their situation, and the self-harming would have helped them feel better. Characters were believed to commit suicide when they felt hopeless and there was no other alternative.

> I think because he felt like it was never going to end, like he was never going to find the answer, he was never going to see his friends again, he was always going to be alone in this small town full of weird, eccentric kind of people where he didn’t really fit kind of thing.

Eighteen (64.3 per cent) of those who had experienced this material via a book said it had had an impact on them. This proportion was the same across study centres, and did not vary with participant age, ethnicity, or method used at last self-harm episode.

Only four (14.3 per cent) of the 28 thought there had been a specific effect on their own self-harm behaviours, meaning the numbers were too small to do further analysis.

The stories were closely aligned with the way participants felt their own lives were, hence, they were able to relate closely to the characters and their emotions. This did not usually translate to the participants’ self-harming. For instance, reading a book in which a character had self-harmed made participants feel sad, rather than wanting to harm themselves or copy the method of self-harm: “It made me feel quite upset how my life was out of control like hers.”

**Radio**

Eleven (15.5 per cent) people recalled hearing about suicide or self-harm on the radio. They were evenly distributed across study centres. All but one were aged 16 or over and were European, but otherwise the distribution was the same for gender and method used at most recent episode. There was no association with age at first learning that people harm or kill themselves. Ten people answered the question about the general impact of the exposure, with seven (70.0 per cent) considering there had been an impact. These numbers were too small to conduct further statistical analysis.

Nine people answered the question on specific effects on their own self-harm, with four (44.4 per cent) considering there had been such an effect. All those who felt radio exposure had effected their own self-harm were aged 16 or over. Numbers were too small to conduct statistical analysis.

Participants mainly reported hearing about celebrity suicides on the radio. They particularly noted the behaviour of radio announcers and the way they handled the subject of self-harm.

> I remember one time the radio announcer said, “I have missed out on some type of competition, I’m going to go off now and cut my wrists about it.” He was joking and I remember thinking “oh”.
Well, he [the radio announcer] asked us to like, tell about our weekend like, in two words. And someone had texted him “Lotsa cutting”.
I think those were their two words. And so he talked about that for a little bit. And he asked that like, if anyone was going through that to text him and yeah I texted.

Participants raised concern regarding the behaviour of radio announcers, particularly if they joked about self-harm or made light of the subject. Radio announcers who dealt with the issue of self-harm carefully and allowed listeners to discuss the issue openly were regarded as a therapeutic influence.

I wondered if the guy was alright, I wondered if the guy was actually serious. I don’t cut my wrists at all because I find it too painful. Jokes like that, it’s like black humour to me.

Because when I heard that [radio announcer], I hadn’t done that [cutting] for a long time. So it made me feel as if I’d passed that phase, and I could tell them something about my experience.

**Interest in stories about suicide and self-harm**

We asked participants whether they were interested in stories about suicide or self-harm, and 52 (76.5 per cent) of the 68 who responded said they were, with similar proportions across study centres. There was no variation by age, gender, ethnicity, or method at most recent self-harm episode. Twenty-five (36.8 per cent) of the 68 said they purposefully sought out material on suicide or self-harm. This did not vary by study centre. Ten (58.8 per cent) of those aged under 15 had done so, compared with 15 (29.4 per cent) of those aged 16 or over, a statistically significant difference ($\chi^2 = 4.7$, $p=0.03$). Those who looked for such stories described searching online for stories closely related to their personal situation: “I can relate to it and it’s just like it kind of helps me in a way. Just knowing that I am not the only one.”

Gender, ethnicity and method at most recent episode were not associated with actively seeking out suicide- or self-harm-related material. Five (7.4 per cent) of the 68 said that they collected stories about self-harm or suicide. Numbers were too small to conduct reliable statistical tests of association with gender, ethnicity, age and method. Two participants described ascribing the stories to memory, while one chose to write it in their diary. One participant would have liked to collect such stories but was not allowed to for safety reasons.

If I could yes, but Mum won’t let me. Not allows me in case I’m suicidal. I’m not allowed out of her sight really because she knows what I get up to when I’m on my own. I’m not allowed mobile phones, I’ve been cyber-bullied and I’m only allowed on the internet with supervision because I look up suicidal stuff. My mum, she just watches me. Sometimes I can slip through the net, so not really.

**General links between self-harm and media**

Several participants knew of people who they thought had been influenced by stories in the media. Most of these were friends who had self-harmed after looking at materials online or after comparing themselves to models in magazines. Participants felt that their friends self-harmed in an attempt to fit in with current trends. A few also knew of friends who had mastered drug doses by researching online, so they could self-harm with a lower risk of dying.
Yes, there’s that one friend who like I know for a fact that she doesn’t take drugs because she knows
that it will actually kill you so she just takes enough to get into hospital. She’s found that out by going
online and stuff like that.

The internet was the preferred medium from which to learn more about methods of self-harm. A small
number had gained knowledge through violent graphic movies. Apart from media, participants identified
friends as the main influence on their self-harm behaviours.

I must have because no one has ever sat down and told me that this is how you commit suicide. The
only way I can have got the information is through friends and the media. My parents certainly never
sat down and told me, the way to suicide is … just to let you know.

The majority of participants also attributed to the media their belief that self-harm and suicide were
linked to adverse life events such as death or trauma. During such periods, people could feel depressed or
highly stressed and use self-harm to cope or kill themselves as a last resort.

Yes, like in the wake of someone’s death or something, that seems to me a time when self-harm
happens. Just stuff like that. Mostly when people are overwhelmed and they are stressed and things
like that. In distress pretty much.

**Media as prevention**

Participants strongly felt that media had a key role to play in self-harm prevention, and identified a
number of ways that media could help. Participants asked for stronger or clearer warnings on TV
programmes and movies that contained disturbing materials and those who found that the images and
media acted as triggers for their self-harm behaviour preferred if these were censored before being
broadcast.

They could just, like completely cut it out, because, like, it just triggers people’s memory and
thoughts and stuff, and if someone’s on the road to recovery and then they watch something about
self-harm and it triggers their brain, then they may do it again.

Participants asked for safer reporting of suicides, including reducing the glorified ways celebrity self-harm
and suicides were portrayed. They asked for better awareness and support campaigns so that young
people were aware of different avenues of help.

There’s really very little out there from the media to offer support for young people.

There could be a lot more ads and stuff, like the depression ad. Like everyone knows about self-
harm and stuff but there’s ads about depression and stuff but there’s nothing about self-harming.
Something about self-harm – they could just talk about it, they don’t need to show it or anything.

Some asked for media to show the effects of self-harm and suicides on families; others wanted to see
stories of people in recovery who had overcome self-harming. There was a strong call for toning down the
graphic nature of suicide and self-harming in media, removing such news from dominating the front
page, and providing no details on the methods used.
I reckon it's not really good to show … what they are actually doing, it's a bit gruesome; I can imagine little kids watching that. And for the people that are affected by self-harming as well. Stop showing the detail.

**Other forms of exposure to suicide and self-harm**

We asked whether participants knew anyone who had harmed themselves or who had died by suicide, and what the relationship was. The results are shown in Table 16.

<table>
<thead>
<tr>
<th>Source</th>
<th>Self-harm</th>
<th></th>
<th>Suicide</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>%</td>
<td>Frequency</td>
<td>%</td>
</tr>
<tr>
<td>Family</td>
<td>2</td>
<td>2.8</td>
<td>8</td>
<td>11.3</td>
</tr>
<tr>
<td>Friend</td>
<td>32</td>
<td>45.1</td>
<td>33</td>
<td>46.5</td>
</tr>
<tr>
<td>Family and friend</td>
<td>32</td>
<td>45.1</td>
<td>6</td>
<td>8.5</td>
</tr>
<tr>
<td>Did not know of anyone</td>
<td>5</td>
<td>7.0</td>
<td>24</td>
<td>33.8</td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sixty-seven participants answered the question on whether they thought these exposures had had any impact on them, and 49 (73.1 per cent) considered there had been an impact. This was not associated with study centre, age group, gender, ethnicity or method at last episode of self-harm. When asked whether the exposures to self-harm or suicide among family or friends had influenced their own self-harming behaviour, 33 (49.25 per cent) considered that it had done so. This was not associated with study centre, age group, gender, ethnicity or most recent method.
Discussion

Key findings and their significance

In this study of a clinic sample of young people with a recent history of self-harm, suicidal ideation was recalled as emerging at around age 12.5 years for both males and females, with no apparent ethnic variation. Self-harm behaviour was recalled as emerging about a year later. The young people linked the emergence of these suicidal behaviours strongly to distressing factors in their social contexts, particularly in their family/whanau, over which they felt they had little or no control. Cutting was used by almost half the sample at their most recent episode of self-harm; it was of interest that cutting was as common among the young men, as among the young women. This is consistent with emerging evidence from elsewhere (e.g. Hawton et al, 2007) indicating that cutting is not a behaviour confined to young women.

Seventeen per cent of the sample had used clearly potentially lethal methods during their last episode of self-harm. Because we did not interview clinical staff, or undertake a detailed audit of clinical files, we were unable to ascertain how many of the ingestion or cutting episodes were potentially lethal. This means that our finding that almost one-fifth had used potentially lethal methods is likely to be an underestimate. The proportion of males and females using potentially lethal methods, particularly hanging, were similar, which is a possible contributing factor to the increased rate of suicide deaths among young women in New Zealand. Almost 40 per cent of participants had wanted to die at the time of their most recent self-harm episode, and that was strongly associated with choice of method. This suggests that young people who have harmed themselves, and are accessing mental health services in New Zealand, are well aware of the lethal potential of some methods of self-harm. Intent to die did seem to be linked to loss of hope, which is well known as a risk factor for death by suicide.

A number of previous studies have suggested that many young people who harm themselves spend relatively little time planning their act of self-harm (Rodham, Hawton, & Evans, 2004). In this study forty percent of our participants reported little or no planning prior to their most recent episode of self-harm. However, a smaller number of young people (20%) reported planning their most recent act for more than 24 hours. This pattern of results, in conjunction with young people themselves clearly linking their self-harm to difficulties in coping with life events supports the importance of interventions which increase the repertoire of positive coping strategies for young people in distress. Of note is the fact that young men reported greater planning of their most recent act of self-harm, which could suggest the suicidal process (Fortune, Stewart, Yadav, & Hawton, 2007) differed between genders in our clinical sample and requires further study.

Young people reported that they first learnt about suicide from important people in their social context; school/teachers and television were the most commonly nominated first sources of knowledge about suicidal behaviours. Friends and extended family were the next most common. Other media, such as the internet and mobile phone were rare first sources. These data suggest that at least among young people with clinically significant self-harm, emerging media are used for gaining or sharing information rather than being a specific risk due to introducing self-harm or suicide as a novel idea to young people. In light of this, the association we found between any media as the source of first information and cutting as the method at the most recent episode, is of interest.
Self-harm by cutting is increasingly viewed as a heterogeneous phenomenon which includes a wide range of intentions regarding suicide, ranging from no suicidal or stress-reduction intent, to strong association with desire for escape or death (Jacobson & Gould, 2007). Our findings suggest that cutting behaviours not linked to suicidal intent, could in some circumstances be a shared social practice among a group of young people and may be influenced by contextual factors such as media differently from cutting linked with suicidal intent.

The most commonly cited specific media exposures were television (both fiction and non-fiction), movies (cinema and DVD), the internet (excluding social networking sites) and music, with over 60 per cent of participants citing each of these. Among TV channels, TV2 was the most frequently recalled, and naming this channel was strongly associated with use of overdose/poisoning at most recent episode of self-harm. In the year prior to our study beginning, TV2 aired an episode of Shortland Street portraying a character taking an overdose. In this study, few media items were recalled in detail by many participants; however, the detail of this episode was relatively commonly recalled. Our finding suggests a link between this media portrayal and the method used by these young people, which is consistent with overseas evidence from studies designed specifically to test this hypothesis.

Television non-fiction was reported commonly as an exposure overall, but with less frequency among Māori than television fiction. News programmes were the most common source. Movies were also common sources of exposure, with European participants more likely to report this source, and an apparently higher proportion of those who used overdose/poisoning and violent methods reporting movie exposure. Two specific movies were named (Thirteen and Girl Interrupted) both having been linked to suicidal behaviours in clinical anecdotal evidence both in New Zealand and the UK, and also in the UK pilot study preceding this larger study (Zahl & Hawton, 2004). It was notable that the mean ages of those reporting having seen Thirteen, which had an R16 rating, meant that several people had seen it at an age considerably younger than 16. Many parents may not be aware that it is an offence to allow underage children to watch restricted movies, that there are heavy penalties for doing so (maximum fine $10,000 or a jail sentence of up to 3 months), and that the sole purpose of such restrictions is to protect the interests of the child or young person (Office of Film and Literature Classification, 2010).

All young people who had used violent methods at their most recent self-harm episode reported exposure to suicide content via the internet, compared to just under three-quarters of those who used cutting and just over 40% of those who used overdose/poisoning. This association was significant for the internet, unlike for other media exposures, and is consistent with the non-significant trend for a higher proportion of those using high-lethality methods to report active searching of the internet for information about suicide or self-harm. Overall, fewer than half of those who had viewed suicide or self-harm related content on the web had actively searched for it but were prompted via pop-ups or friends, indicating the importance of ensuring young people are equipped to make judgements about web-based material they may be presented with. A significant minority had thought the web material had influenced their own self-harm behaviour. Those who had actively searched tended to be older than those who had not, again suggesting that the internet is used as a source of information by people who are developing a psychological profile that includes suicidality, rather than being a ‘first port of call’ as soon as the idea of self-harm or suicide comes into a young person’s mind.
That there was no association between reported younger age at learning about suicide and self-harm, and actively searching for web content on the topic, further supports this suggestion. Almost all participants used social networking sites, and over a third had seen suicide or self-harm related material on such sites.

Several studies have suggested that the Internet may be an important source of support for people who harm themselves (Baker & Fortune, 2008; Whitlock, Powers, & Eckenrode, 2006). People who used cutting at their most recent self-harm episode were most likely to report using the internet to seek help. This is consistent with the earlier suggestion that the subpopulation that uses cutting is somewhat different to those using other methods, and that people who use cutting may use social support and social networks in different ways for support. Many participants considered some of the more extreme suicide-related material available on the web to have been posted for less than worthy reasons, such as attention-seeking. There was a suggestion that it was seen by some as deviant behaviour, and appeared to be considered differently to material that was related to help-seeking. It is probable that young people do differentiate between different kinds of material on the web, and may be affected in diverse ways by what they find; they do not necessarily engage and identify with it.

Mobile phones were a less common source of material about suicidal behaviours. The great majority of material was shared by others via text messaging, rather than accessed via the internet. Comparing this with the much lower frequency with which material was received from friends via the internet suggests that the electronic sharing of material about suicidal behaviours is done largely by phone. The content of some of the text messages was disturbing, given the highly abbreviated and generally context-free nature of texting, and the essentially intrusive nature of the communication (by this we mean that it is not possible to pace the receipt of the information, or to otherwise choose the manner of receipt to allow some degree of psychological processing). Some of the messages contained information likely to be extremely upsetting, and it is possible that an already vulnerable young person could be overwhelmed by this mode of receipt. However, the qualitative data indicates that, among young people, a single text cannot be seen in isolation, as texting is a dynamic conversational process in which early responses are expected and usually given. Furthermore, texting was portrayed as a major vehicle for young people offering support to one another ‘in the moment’, and was often followed by supportive phone calls.

To date there are no conclusive studies on the role of music in suicidal behaviour in young people, although there have been several small studies (Scheel & Westefeld, 1999) and a number of public expressions of concern. The findings on music and music videos were interesting, because essentially they represent social stressors and suicidal content as having been a common aspect of popular music for several generations. The presence of the material did not appear to be suicidogenic but certain songs (often idiosyncratic to the individual) could act as a behavioural trigger for engaging in self-harm for a minority of vulnerable young people. However, it was more common for people to talk of familiar music with such themes acting as a release for tension and emotion which could prevent self-harming episodes which is in line with some recent studies (Stegemann, Brueggemann-Etchart, Badorre-Kinkelmann, & Romer, 2009).

Stories about suicide and self-harm in newspapers appeared to make less of an impression than portrayals in audio-visual media, such as TV and film. The stories were recounted about a particularly story, participants were also more likely to report they felt they could identify with the person who had died or harmed themselves. One person specifically felt like trying out the method that had been described.
Magazines presented a different type of portrayal based on revealing celebrity or everyday life, but in both there were opportunities to identify with the person portrayed, and to consider the consequences of their own self-harm. Books were a more common source of exposure than either magazines or newspapers, and of course allowed for considerable depth of portrayal, as with movies. Portrayals in books invited much stronger identification with the person engaging in self-harm than other print media.

Radio portrayals were reported as being rare, and mainly related to celebrities. Most of the focus was on the conduct of radio announcers who were perceived as having an opportunity to be therapeutic.

The participants in this study thought media and friends had important potential to influence people’s suicidal and self-harm behaviours, including the potential for prevention. Some wanted clearer and more assertive warnings on TV programmes and movies that feature suicidal and self-harm content, although it was unclear whether it would have deterred them from watching such material.

**Methodological and practical issues**

This study faced a number of challenges. Our original aim had been to collect data from 100 young people. However, we faced considerable difficulties in some of the clinical services from which we had hoped to recruit our study participants. Mental health services in New Zealand are extremely busy, and staff fully or over committed. This makes it difficult for staff to prioritise research projects, even if they are as integrated with clinical procedures as possible.

Despite extended timeframes, we were only able to recruit 71 participants by the end of the contract, meaning the sample was too small to conduct some analyses, such as detailed ethnicity analyses. We are very grateful to the clinicians who were able to prioritise recruitment to this study.

The recruitment difficulties had consequences for the sampling. We had aimed for a pragmatic clinic sample of consecutive referrals evenly balanced across two study centres. Although we had allowed for refusals in our planning, our sample is less systematic than intended and is quite unbalanced across study centres. In particular, it is weighted towards participants in an inpatient unit, which means we have a higher proportion of people at greater risk of suicide and repeated self-harm than we had intended. This is not a flaw of the study, but it does mean our findings are unlikely to be generalisable to young people whose self-harm is not clinically significant, is not occurring in the context of psychosocial disorder, or has not been detected. In addition, we had aimed to recruit a higher proportion of Māori (we had been hoping to gain this part of the sample from Auckland) and young men, which, in combination with a larger total number, would have enabled us to conduct a more fine-grained analysis.

A second limitation to the interpretation of our findings is that this is a cross-sectional study based on recall of prior exposures. Recall of experiences in the past is likely to have been affected by more recent events. Whether this would cause over- or under-estimates of certain measures is not known, but some degree of bias in responses will have been introduced. For example, there was a suggestion that those who were older at interview were more likely to name family as their first source of information, than those who were younger. If this is the case, it probably indicates changes in recall over time, meaning that as people get older, their recall about the first sources of information changes. Regardless of this, we believe this study still has considerable value, as a prospective study of media influences would be almost impossible to conduct without altering the behaviour of those taking part.
We used the method of self-harm at the last episode to characterise our participants’ self-harm. This is inevitably a simplification as there is considerable variety in individuals’ self-harm patterns. For example, a person may use more than one method at different times, some will have episodes quite close together, compared with others who have fewer episodes further apart, and yet others will show variety in the relationship between the self-harm and triggers or stressors. Our approach was to use the last episode as the index attempt, by which we characterised the nature of each individual’s self-harm.

Despite these limitations we have identified some areas of concern and interest that could be followed up in a larger study.

**Study strengths**

Our participants were all young people who had been sufficiently distressed to be using mental health services and who had engaged in clinically significant self-harm. We were able to conduct in-depth interviews about their media exposure, and although the dataset is smaller than we had hoped, the combination of quantitative and qualitative data provides much detail about the nature of exposure to suicide-related media content among young New Zealanders who have presented to mental health services following self-harm.

We have achieved a sample with sufficient variation to capture a wide range of experiences and gain some depth of understanding about the issues. Few participants experienced any overt distress during the interview, and for those who did, the interviewers were able to use their clinical skills to support the young person. The great majority of participants appeared to value the opportunity to reflect on their experiences outside the direct clinical context.
Conclusion
The young people in this sample clearly described the emergence of suicidal behaviours as a response to, or way of coping with, significant life stressors. They talked of their use of interactive media-related technologies, such as mobile phones and the internet, as supports for themselves and others. Non-interactive technologies, such as television, movies, newspapers and magazines, were more limited in that they can only project information or portrayals to the young person, which means there is no opportunity for checking, gaining further information or feedback, or participating in a community, all of which are aspects of more recent technologies that are valued by young people, and which have great potential for prevention.

It was notable that while none of the participants called for greater prominence of material about suicidal behaviours in the media, there was a call from some for safer reporting. This included not including information about methods, reducing the glorification of celebrity self-harm and suicide, providing more information for young people about how to seek help, more information about the consequences of suicide for those left behind, and more positive stories of recovery.

Much of the literature to date on suicide and the media has referred to media as if this is the same thing as the technology. The young people in this study appear to more readily separate the technology, e.g. mobile phone, from the medium, e.g. novel or film. This is separate again from the actual content.

Future studies would benefit from considering this separation, because technology, medium and content have different features, drivers and limiting factors, and therefore contribute different elements to risk and protective factor profiles for the individuals who use them.

Television fictional portrayals and television news were important ways of young people being exposed to material about suicidal behaviours. Those who create fictional material should be encouraged to consider the potential consequences for vulnerable young people. Principles of safe portrayal include: not presenting suicide as a solution to a problem; not glorifying or romanticising the suicide; not giving details about the method either in the dialogue or in the visual presentation; showing the consequences for other people and showing how help may be sought. Detailed guidance for safe fictional portrayal of suicide and self-harm (and mental illness) is available (for example, at http://www.mindframe-media.info/site/index.cfm?display=86070). Television news reporting of suicide and self-harm should adhere to the principles of safe practice. These principles include: always including a crisis service and an information service both on screen and in the audio content; avoid broadcasting details of method and location, not sensationalising the death and providing contextual information about the case. New guidance for media reporting of suicide in New Zealand is about to be published.

Although the young people in this study were more exposed to material about suicide through books than through newspapers, there is still a strong argument for using caution around the placement and treatment of the topic in newspapers. Prominent front page coverage will be seen by many more people than those who actually read the paper, through the use of the front page to advertise the newspaper and prominent use of the word ‘suicide’ in headlines.
People have ready access to a wider range of media content on suicide and self-harm than ever before. Much of the content is not monitored or regulated. However, there are still opportunities for prevention through policies and programmes that support education and skill development among young people, so that they become better equipped to manage their use of and responses to such material and to seek help for themselves and their peers when appropriate. The media itself is also a relatively untapped source of potential suicide prevention activity. Young people prize their ready access to information and to diverse ways of social participation. Their level of engagement with media provides us with opportunities to continue developing innovative approaches to suicide prevention.
References


