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How do lay people interpret and respond to suicide warning signs?

A thesis presented in partial fulfilment of the requirements for the degree of Master of Arts in Psychology.

School of Psychology, Massey University, New Zealand

Amber McAllister 2017
ABSTRACT

Suicide is a worldwide problem with over 800,000 people dying by suicide every year, and many more attempting suicide or thinking of suicide. Despite prevention efforts, suicide rates are increasing. One promising area of prevention is educating the public to recognise and respond to suicidal signs. Yet knowledge of this area is currently lacking in the literature, especially in New Zealand. The aim of this study was to understand and explore how lay people in New Zealand currently interpret and respond to suicidal signs. A second aim was to assess whether there were gender or age group differences. A mixed methods approach was used that included a validated questionnaire and a semi-structured vignette interview developed specifically for the study. Participants were 24 adults from one location in New Zealand, grouped equally by gender and age (20-30 years or 40-50 years). The results reveal a number of psychological, cognitive, and communicative barriers to interpretation and intervention, and a lack of intervention knowledge. Small gender and age group differences are also revealed. These findings have implications and recommendations for suicide prevention strategies in New Zealand.
ACKNOWLEDGEMENTS

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To my children Cullen, Ava, and Lulu. Thank you for being understanding when I have had to write or have been distracted with my research. You brighten my life each and every day and I love you.

I must thank my supervisor Dr John Fitzgerald. I am so grateful for your feedback, advice, and support. You are a great supervisor and I feel very fortunate to have worked with you this year.

Thank you to the Massey University Human Ethics Committee for your comments, feedback, and approval.

Finally, I would like to thank my 24 participants- thank you for choosing to take part in this research. It would not have been possible without you.
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Introduction and Rationale

Suicide is a major issue in New Zealand and around the world. Prevention efforts so far have failed to decrease suicide rates, so further research is needed to understand what strategies may be effective. One area that has potential as a prevention strategy is utilising the public to recognise and respond to suicide warning signs. However, there is scarce research about this group, especially in New Zealand. Therefore the aim of the current study is to explore and understand what lay people currently know about warning signs and how they believe they would respond to someone suicidal.

The current section will provide an introduction and rationale for the study by providing international and national suicide statistics, defining and describing suicide behaviour, as well as risk factors and warning signs for suicide. Then the literature review will focus on current prevention programmes, the suicide communication literature, and the literature on attitudes to suicide. Within this section, will be a review of the tripartite theory of attitude and the theory of planned behaviour, as these models may be useful for the helping intentions of lay people. Following this is the methodology section, the results section, which consists of both quantitative and thematic analyses, and finally a discussion of the results which will incorporate limitations and further research recommendations.

More than 800,000 people die by suicide every year, a figure that translates to one person dying by suicide every 40 seconds (World Health Organization, 2017). It is a worldwide problem with no cultures or countries exempt (WHO, 2017). For many countries it is one of the top ten causes of death, and in some age groups it is even higher. In the 15-29 year age group, it is the second highest cause of death (WHO, 2017). In addition, there are many more who attempt but do not die by suicide, with the World Health Organization
(WHO) indicating that for each adult that dies by suicide, 20 others may attempt suicide. Completed suicides also have a substantial secondary impact on a person’s family, community, and society (WHO, 2017).

Although official suicide rates show that suicide is a leading cause of death in most countries, there is a general consensus that these rates may underrepresent total suicides due to cultural and national differences (Rogers & Lester, 2010). In some countries, suicide is underreported because it is considered taboo, or because of stigma or its illegal status. Suicide may be misclassified when cause of death is unclear, or mistakenly classified when there appears to be a more obvious cause. For instance, sole occupant car accidents can be classified as death by accident yet may actually be an act of suicide. Research has also pointed to differences in classifications, and therefore rates, depending on the coroner’s background (Rogers & Lester, 2010). Cultural factors can further influence whether a death is considered suicide, such as the death of young women by domestic burning in such countries as India and Iran following domestic disputes with their husband’s or in-law families (Canetto, 2008). In such instances, it can be difficult to know whether a death is an accident, a suicide, or a homicide.

Another general consensus regarding suicide is that it tends to affect people differently to other types of deaths. The affect may be more intense; where grief may be intertwined with confusion, anger, guilt, blame, and shame, partly as a consequence of the stigma that accompanies suicide. Those who had contact with the deceased prior to their death wonder if they could have done something to prevent the death. Also, the impact of the death appears to be more far-reaching, affecting not only family and friends of the deceased but the wider community too (WHO, 2017). Moreover, the death of a person to suicide can
increase suicide risk within the family of the deceased and the community. A family history of suicide is a risk factor for suicide (whether this is due to genetics, the role modelling of behaviour, or both, is less clear), and community risk has been shown with the phenomenon of suicide clustering, where there are clusters of suicides within the community after a known person commits suicide. This clustering of suicide, especially when initial suicide involves a celebrity, is a main reason why there are media embargoes when writing about a person’s death by suicide (Pirkis, Blood, Beautrais, Burgess, & Skehan, 2006).

**Suicide Definitions and Classifications**

This section defines and describes suicidal behaviour. Egmond and Diekstra (1989) define suicide as: “An act with a fatal outcome; that is deliberately initiated and performed by the deceased him or herself, in the knowledge or expectation of its fatal outcome, the outcome being considered by the actor as instrumental in bringing about desired changes in consciousness and social conditions” (p. 53). Shneidman (1985) described suicide as: “A combined movement toward cessation of consciousness and as a movement away from intolerable emotion, unendurable pain, unacceptable anguish” (p. 124). Shneidman labelled this emotion, pain, and anguish as *psychache*. These definitions are accurate but broad, encompassing suicide that has religious connotations such as suicide bombers who commit mass homicide, or euthanasia, where a person who is terminally ill is assisted to end their own life. Common risk factors, warning signs, and intervention strategies do not apply to these types of suicide.

Suicide behaviour can be classified into three broad categories: suicidal ideation, attempts, and suicide (Aldridge & Barrero, 2012). These categories of suicidal behaviour differ from
each other in their level of agency and their intent, but they are on a continuum and all should be taken seriously as a result. Table 1 defines and describes these suicidal behaviours. Threats of suicide also fall into the category of suicide ideation. These are insinuated in front of others (Aldridge & Barrero, 2012), and suicidal gestures are behaviours that are not verbal. Deliberate self-harm is a term used to describe the behaviour of people who intentionally hurt themselves but do not intend to die, but this is not a focus of the current study.

**Table 1**

*Classification and definitions of suicidal behaviour*

<table>
<thead>
<tr>
<th>Classification</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suicidal ideation</td>
<td>Thought of serving as the agent of one’s own death; seriousness may vary depending on the specificity of suicidal plans and the degree of suicidal intent.</td>
</tr>
<tr>
<td>Suicidal intent</td>
<td>Subjective expectation and desire for a self-destructive act to end in death.</td>
</tr>
<tr>
<td>Suicide attempt</td>
<td>Self-injurious behaviour with a nonfatal outcome accompanied by explicit or implicit evidence that the person intended to die.</td>
</tr>
<tr>
<td>Suicide</td>
<td>Self-inflicted death with explicit or implicit evidence that the person intended to die.</td>
</tr>
</tbody>
</table>


**Suicide Risk, Warning signs, and Communication**

Risk factors, warning signs, and suicide communication are all important components for suicidology, the scientific study of suicide and suicide prevention (Fitzpatrick, Hooker, & Kerriedge, 2015). Although they are often grouped together, and do have some overlapping features, there are some distinctions that should be noted. Risk factors may be long term and fixed, or dynamic and variable. Fixed risk factors include gender, ethnicity, sexual orientation, and personal or family history. Risk factors that are dynamic and variable include depression, abuse, substance abuse, and stressful life events. While these
are individual risk factors, other risk factors can be linked to community or societal factors. For instance, risk is increased in societies where there is high unemployment and poverty (Beautrais, Collings, Ehrhardt, & Henare, 2005; Orden et al., 2006). Risk can also be linked to the economy of a country. The World Health Organization (2017) has found that low and and middle-income countries have more suicides than high-income countries. In addition, population attitudes have been found to increase risk. Some studies have found that countries with high suicide rates have more stigmatising attitudes toward suicide (Mokhovikov & Donets, 1996; Schomerus et al., 2015). This may be because stigma creates barriers to effective prevention; suicidal persons do not feel confident confiding in others their distress, and others hold negative misconceptions about suicide, and are neither open nor comfortable to intervene. In contrast, some findings link higher suicide rates to countries that are higher in suicide acceptability (Stack & Kposowa, 2016). When people are more accepting of suicide as an option for distress, they may choose not to intervene and prevent someone from committing suicide. This highlights just how variable and complex suicide and its risk factors actually are.

Warning signs more generally signify imminent indicators for suicide (Rudd et al., 2006). Hendin et al. (2001) identified three warning signs that immediately precede suicide: a precipitating event, an intense affective state, and a discernible pattern of behaviour that includes suicide communication (verbal and nonverbal), deterioration in social functioning, and increased substance abuse. A working group from the American Association of Suicidology (AAS) provided a consensus set of definitions for warning signs with threats of killing oneself, looking for ways to kill oneself, and talking or writing about death or dying, noted as the most significant (Rudd et al., 2006, p.259). They defined other warning signs as hopelessness, anger, reckless or risky behaviour, feeling trapped, lack of reasons
for living, social withdrawal, substance use, agitation, anxiety, and sleep problems (Rudd et al., 2006, p. 259). Other warning signs that have been identified include giving away possessions and a change of behaviour from depressed to calm and happy (Ministry of Health, 2015; Suicide Prevention Information New Zealand, 2010).

**International Suicide Rates and Perspectives**

Suicide rates vary substantially between countries, as shown by the World Health Organization’s (2016) data (from 2012). For example, as a region Europe rates are higher than the global average for that period (13.8 per 100,000 compared to 11.4 per 100,000), yet rates range from a low of 1.7 per 100,000 for Azerbaijan to a high of 33.5 per 100,000 for Lithuania. Similarly, the Americas region ranges from 1.2 per 100,000 for Jamaica to 34.8 per 100,000 for Guyana, with Canada equal to the global rates (11.4 per 100,000) and the US higher than the global rates at 13.7 per 100,000. The country with the highest rate is the Republic of Korea at 36.8 per 100,000. The country with the lowest recorded rate is Saudi Arabia with 0.3 per 100,000 and this region, the Eastern Mediterranean, which also includes such countries as Egypt, Afghanistan, and Iran, has the lowest official rates of all regions for this period.

These country and regional differences can partly be attributed to political, structural, social, and cultural factors linked to differences in the reporting and classifying of suicide, as described previously. This may be the case with the low rates of suicides in the cluster of countries that make up the Eastern Mediterranean, especially considering the religion of Islam is predominant in these countries, and condemns suicide, which may result in underreporting. Alternatively, it may result in suicide not being seen as an option for dealing with distress.
New Zealand Suicide Rates and Perspectives

New Zealand has one of the highest suicide rates in the world. Within OECD countries, New Zealand has higher rates than countries such as Australia, United Kingdom, and Canada, as can be seen in figure 1.

Figure 1. Age-standardised suicide rates per 100,000 by country based on latest available data (2012-2014). Source: OECD(2017)
In New Zealand, the most recent data available is the 2016/17 provisional figures released by the Chief Coroner for the Ministry of Justice, which shows that there were 606 deaths for this period (Coronial Services of New Zealand, 2017). These figures show an increasing upward trend, and is the highest number of deaths recorded since the Coronial Services first reported death by suicide in 2007/08, (although the suicide rate per 100,000 is similar to 2010/11 rates) as can be seen in Table 2. Table 3 shows the total number and rates separated by age group for 2016/2017. As can be seen, the 20-24 year age cohort had the highest number of deaths (79) followed by the 25-29 and 40-44 year age groups (64 each) (Coronial Services of New Zealand, 2017). It should be noted that these figures are provisional, and relates to all deaths the coroner initially identifies as self-inflicted, although the final number may change depending on a consideration of all available evidence (Coronial Services of New Zealand, 2017).

Table 2.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Per 100,000</th>
</tr>
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<tbody>
<tr>
<td>2007 - 2008</td>
<td>540</td>
<td>12.2</td>
</tr>
<tr>
<td>2008 - 2009</td>
<td>531</td>
<td>12.04</td>
</tr>
<tr>
<td>2009 - 2010</td>
<td>541</td>
<td>12.26</td>
</tr>
<tr>
<td>2010 - 2011</td>
<td>558</td>
<td>12.65</td>
</tr>
<tr>
<td>2011 - 2012</td>
<td>547</td>
<td>12.34</td>
</tr>
<tr>
<td>2012 - 2013</td>
<td>541</td>
<td>12.1</td>
</tr>
<tr>
<td>2013 - 2014</td>
<td>529</td>
<td>11.73</td>
</tr>
<tr>
<td>2014 - 2015</td>
<td>564</td>
<td>12.27</td>
</tr>
<tr>
<td>2015 - 2016</td>
<td>579</td>
<td>12.33</td>
</tr>
<tr>
<td>2016 - 2017</td>
<td>606</td>
<td>12.64</td>
</tr>
</tbody>
</table>

Source. Coronial Services of New Zealand (2017).
Table 3.

*Latest provisional suicide deaths reported to the Coroner by age (July 2016-June 2017)*

<table>
<thead>
<tr>
<th>Age group (Years)</th>
<th>Total</th>
<th>Rate</th>
</tr>
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<tbody>
<tr>
<td>10-14</td>
<td>13</td>
<td>4.31</td>
</tr>
<tr>
<td>15-19</td>
<td>38</td>
<td>12.01</td>
</tr>
<tr>
<td>20-24</td>
<td>79</td>
<td>22.2</td>
</tr>
<tr>
<td>25-29</td>
<td>64</td>
<td>17.69</td>
</tr>
<tr>
<td>30-34</td>
<td>47</td>
<td>14.96</td>
</tr>
<tr>
<td>35-39</td>
<td>42</td>
<td>14.65</td>
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<td>40-44</td>
<td>64</td>
<td>21.64</td>
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<tr>
<td>45-49</td>
<td>48</td>
<td>14.88</td>
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<td>50-54</td>
<td>59</td>
<td>18.76</td>
</tr>
<tr>
<td>55-59</td>
<td>51</td>
<td>16.75</td>
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<tr>
<td>60-64</td>
<td>31</td>
<td>11.71</td>
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<td>65-69</td>
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<td>70-74</td>
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<td>10.48</td>
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<tr>
<td>75-79</td>
<td>4</td>
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<td>80-84</td>
<td>11</td>
<td>12.76</td>
</tr>
<tr>
<td>85+</td>
<td>14</td>
<td>16.43</td>
</tr>
<tr>
<td>Total</td>
<td>606</td>
<td>12.64</td>
</tr>
</tbody>
</table>

*Note. The per 100,000 population rate has been calculated following Statistics New Zealand annual population estimates for the 2017 year.*

*Source. Coronial Services of New Zealand (2017).*

In addition, there continues to be clear gender and ethnic discrepancies with males and Māori having the highest rates for suicide. Age-standardised rates for gender revealed rates of 19.4 per 100,000 (457 male deaths) and 6.1 per 100,000 (149 female deaths), a gender rate ratio of 3:1 (Coronial Services of New Zealand, 2017). This gender disparity has been consistent for a number of years, and is also a common pattern found in many other countries. The most common reason attributed to this gender disparity is choice of method, with males tending to choose more lethal methods of suicide such as firearms or hanging in comparison to females who more commonly chose ‘softer’ options such as drug overdose or poison (Pitman et al., 2012). In contrast, females in New Zealand and in many other
countries tend to have much higher rates of suicide attempts and hospitalisations than males.

Age-standardised rates for Māori were 21.7 per 100,000 for 2016/17, a difference of 7.1 per 100,000 compared to the second highest ethnic group, European and other, who had 14.7 per 100,000 (Coronial Services of New Zealand, 2017). Such high figures were shown in previous years. While Māori females generally have higher rates of suicide than non-Māori females, it is Māori males, particularly, who are most at risk for suicide. In a review of the period 2005 to 2014, Māori males had higher rates than non-Māori males every year (and the highest rates overall), (Ministry of Health, 2016). The discontinuation of whakapapa, as a result of suicide, has implications for whānau, hapū, and iwi (NZ Suicide Prevention Strategy, 2006-2016; Ministry of Health, 2006).

Why Māori are over-represented in the suicide statistics may be explained by factors related to the loss of Māori identity and culture and social fragmentation since colonisation, or to the current disadvantaged status of Māori – which can be argued as a consequence of the former (Beautrais & Fergusson, 2006; Coupe, 2005; Lawson-TeAho, 1998). Unemployment, alcohol and substance abuse, poor health, and familial abuse, all risk factors for suicide, are more prevalent in the Māori population. Similarly, prison populations tend to have high rates of suicide and Māori are over-represented within the prison system (Beautrais & Fergusson, 2006).

Waitemata, Counties Manukau, Waikato, Auckland and Canterbury have the highest rates of all District Health Boards (Coronial Services of New Zealand, 2017). The high figures for Canterbury can be partly attributed to the effects of the Christchurch earthquakes, the
most significant of which occurred on 22 February 2011 and resulted in the death of 185 people. Research has shown that people who experience the stress and consequences of natural disasters are at higher risk of suicide (Sinyor, Tse, & Pirkis, 2017).

In addition to completed suicides, the Ministry of Health (2017) estimates that each year 150,000 people think of taking their own lives, around 50,000 people make plans to take their own lives, and 20,000 people attempt suicide, in its draft report, *A Strategy to Prevent Suicide in New Zealand 2017*. Suicide also has direct economic costs for New Zealand, which has been estimated at nearly $1.4 billion annually (O’Dea & Tucker, 2005).

**Mental Health and Health Service Users**

There is a link between diagnosable psychiatric disorders and suicide, with increased suicide risk for those with mood disorders, psychotic disorders, substance abuse, and some personality disorders (Beautrais, 2003). Despite this link, there are many people who display suicidal behaviour who are not mental health service users (Schaffer et al. 2016). They are more often health service users, with research showing that suicidal individuals often visit their general practitioner in the 12 months leading up to their death (Beautrais et al., 2005; De Leo, Draper, Snowdon, & Kolves, 2013; Leavey et al., 2016; Luoma, Martin, & Pearson, 2002). Therefore, understanding how primary healthcare staff interpret and respond to these patients is a significant area for suicide prevention. Findings have revealed that primary healthcare staff do sometimes miss opportunities for prevention (Leavey et al., 2016).

Therefore, it is important to utilise the informal networks that surround a person—friends, family, colleagues, acquaintances, and other members of their community. They are in a
position to see that a person is suicidal and to support them to seek help, which can be especially significant if the person is not a mental health service user, or when primary healthcare staff miss the signs. This is especially pertinent with research showing that people reveal clues to their suicidal intent (Owen at al., 2012; Pompili et al., 2016; Rudestam 1971; Shneidman, 1996). Suicide communication is a developing area of research and holds out promise for aiding our understanding of warning signs and risk factors (Pompili et al., 2016). However, it is also important to understand how recipients of these communications interpret, react and respond to these clues. Yet, there is much less research in this area (Owens et al., 2011; Owen et al., 2012). The literature on risk factors and warning signs in general, does not extend to how the general population understands, interprets or responds to these risk factors and warning signs when they are presented with them.

Suicide Prevention in New Zealand

Although suicide is currently a major global problem, and certainly an issue in New Zealand, it is also one that is largely preventable (WHO, 2017). Suicide prevention has become a focus both in the international arena and in New Zealand. A number of countries have developed prevention strategies, and WHO has developed a global strategy for suicide prevention: Preventing Suicide: A Global Imperative (World Health Organization, 2014). Past prevention efforts in New Zealand were focused on the youth sector with the implementation of the Youth Suicide Prevention Strategy in 1998 (Ministry of Youth Affairs, Ministry of Health, Te Puni Kōkiri, 1998). However, more recent prevention strategies have broadened to include all age groups: The New Zealand Prevention Strategy 2006-2016 (Ministry of Health, 2006), and the draft report, A Strategy to Prevent Suicide in New Zealand 2017 (Ministry of Health, 2017). This is significant as the most recent
figures show that adults in the 20-24, 25-29, and 40-44 year age groups have the highest suicide rates (Coronial Services of New Zealand, 2017).

A continuing principle of these strategies is that prevention is a shared social responsibility, including cross-Ministry government initiatives, community groups, friends, colleagues, whānau, hapū, and iwi. Accordingly, one of the goals of the draft New Zealand suicide prevention strategy (Ministry of Health, 2017) is to support the public to recognise and be more responsive to people exhibiting suicidal behaviour and other symptoms of mental illness, and to seek help appropriately. It outlines three pathways to prevention: Building positive wellbeing throughout peoples’ lives, recognising and appropriately supporting people in distress, and relieving the impact of suicidal behaviour in peoples’ lives (p.8). The second pathway is particularly important for the focus of this study. This is outlined as: “providing appropriate care and support to people in distress, strengthen the ability of whanau, friends, and family to recognise and support people in distress, and strengthen communities to recognise and support people in distress, and build systems to recognise and support people” (p.9). Potential areas for action are posited as supporting well-being, building social awareness of, and well informed social attitudes to, suicidal behaviour, encourage responsible conversations, and increasing mental health literacy (p.13-16). The New Zealand Prevention Strategy 2006-2016 (Ministry of Health, 2006), the draft Strategy to Prevent Suicide in New Zealand 2017 (Ministry of Health, 2017), and the global strategy Preventing suicide: A Global Imperative (World Health Organization, 2014) are explicit that everyone has a role in suicide prevention.

One strategy to help accomplish these goals is gatekeeper education, which focuses on skill enhancement for community, organisational, and institutional gatekeepers.
Gatekeeper education was one of the prevention strategies which had strong evidence of effectiveness in an evaluation of current prevention strategies by The Suicide Research Network (SRN), which consists of expert suicide researchers in New Zealand, such as Dr. Annette Beautrais, who have come together to produce evidence based consensus about suicide-related matters (Beautrais et al., 2007). However, it is important to note that there are a number of gatekeeper programmes, which vary in their approach and content. It is important to ensure that individual gatekeeper programmes have strong evidence to support their utility. Also, it is important to ensure that the gatekeeper programme is appropriate to its participants. Mental health professionals, school teaching staff, and lay public would all have different needs and skills.

The SRN also found promising evidence for providing support after suicide attempts (as people who attempt suicide have a higher risk of making further attempts), school based competency promoting and skill enhancing programmes, encouragement of responsible media coverage, and public awareness education and mental health literacy. Beautrais et al. (2007) considered that improving public knowledge might help to change recognition and attitudes, but doubted that this would be enough to change actual behaviour. Changing recognition and attitudes is still important but it is also necessary to understand the psychological processes that influence decision-making as this may contribute to behaviour changes, and this will be explored in the current study.

In conclusion, it is clear that there remain a number of unanswered questions in suicide prevention. If people communicate their suicidal intentions to those around them, which is a prevailing belief, then these people may be able to contribute to suicide prevention by intervening and referring onwards when they see someone communicating suicidal
behaviour. For these lay people to be effective, they need to be knowledgeable and confident to intervene. It would therefore seem important to understand what knowledge lay members of the community have about suicide risk and warning signs, what their attitudes are towards suicide, and how they believe they would respond if they thought someone they met was suicidal. It is also important to understand the barriers and facilitators that might affect someone intervening.
**Literature Review**

The literature review is divided into three areas. The first is a review of current gatekeeper or suicide prevention programmes, to understand what is currently taught to the community and how effective these are. The second is a review of studies on suicide communication, both the communicators and receivers, and the third is a review of attitudes to suicide. Finally, this section concludes with the aims, research questions and hypotheses of the current study.

**Suicide Prevention/Education Programmes**

Gatekeeper education involves training a broad range of adults in the community in knowledge of warning signs to be able to identify persons at risk, and in skills to effectively respond to people at risk and refer onwards (Gould & Kramer, 2001; Kuhlman, Walch, Bauer, & Glenn, 2017). If more people in a community can identify those at risk, intervene, and refer onwards this should mean more people who are at risk of suicide would receive treatment and support, leading to decreases in the rates of suicide attempts and deaths (Beautrais et al., 2007; Rodgers, 2010).

There are a number of general prevention training courses and gatekeeper education programmes but the most widely disseminated, with the most literature support for their efficacy, are ASIST, QPR, and SafeTALK.

- SafeTALK is a half-day workshop that teaches participants to be alert to signs of risk, ask, listen to invitations for help, and connect persons to further life-saving resources. It is designed for any members of the community aged 15 and over.
- ASIST (Applied Suicide Intervention Skills Training) is a 2-day workshop that teaches participants to connect with the person at risk, understand their reasons for
dying and living, assist them by creating a safe plan and connecting them to further resources. It essentially teaches ‘suicide first aid skills’. SafeTALK and ASIST are part of the LivingWorks suite of programmes, which also includes SuicideTALK, a 90 minute presentation aimed at increasing community suicide awareness which can help with prevention and intervention but is not a true ‘gatekeeper’ course (Living Works Education, 2016).

- QPR is a brief gatekeeping course (approximately 1 hour) that teaches participants to question, persuade, and refer (question a person showing warning signs, persuade the person to get help, and refer the person to appropriate resources (Quinnett, 2013). QPR is based on the belief that individuals at greatest risk for suicidal behaviour often do not seek out professional help, but communicate their distress to those they encounter on a daily basis such as family, friends, co-workers, teachers (Cerel, Padgett, Robbins, & Kaminer, 2012).

QPR and ASIST have received support in the international literature, often comparing favourably over other gatekeeper programmes (Herron et al, 2016; Smith, Silva, Covington, & Joiner, 2013). At this stage, there is less literature supporting SafeTALK in comparison to ASIST or QPR, although there are still a number of studies that lend support to its efficacy, and it is included in the Suicide Prevention Resource Centre’s best practice registry in the US (Suicide Prevention Resource Centre, 2017). There has been research that assesses ASIST (e.g., Griesbach, Russel, Dolev, & Lardner, 2008; Rodgers, 2010; Smith et al., 2013), QPR (e.g., Cerel et al., 2012; Cross et al., 2010; Jacobson, Osteen, Sharpe, & Pastoor, 2012; Kulman, Walch, Bauer, & Glenn, 2017; Mitchell, Kader, Darrow, Haggerty, & Keating, 2013), and to a lesser degree SafeTALK (e.g., Eyan, 2011; McKay et al., 2012; McLean, Schinkel, Woodhouse, Pynnonen, & McBryde, 2007; Melanby et al., 2010) to the degree to which each programme supports the acquisition of
knowledge about warning signs and risk factors, confidence to intervene, and intervention skills. A large scale gatekeeper study by Cerel et al. (2012) was conducted on behalf of the Kentucky Department for Mental Health, Mental Retardation Services, and The Kentucky Suicide Prevention Group as part of Preventing Suicide: Kentucky’s Plan. This plan provides opportunities for all Kentuckians to be active in reducing suicide and was disseminated across the state. Participants were 3,958 people, mainly female, aged 18-84, who provided data from 213 separate QPR sessions. Participants showed substantial increases in their perceived suicide knowledge and perceived efficacy to help someone immediately post training, although the research report does not indicate if the positive changes were maintained or were implemented when dealing with suicidal individuals. Those with no previous training in suicide prevention showed greater changes in perceived knowledge and self-efficacy, a finding that has been supported in other gatekeeper studies (Niagara Region, 2015).

Knowledge, attitudes, and confidence are important components of any intervention as they can be considered precursors to changes in behaviour, but skill acquisition may be considered the most valid measure of the effectiveness of gatekeeper training (Rodgers, 2010). Many of the studies on ASIST, QPR, and SafeTALK use designs that rely on self-report rather than direct measures so that findings relate to perceived abilities rather than observed skilful behaviour. This is largely due to the difficulty of measuring actual interactions with suicidal individuals due to its low base rates, and the sensitivity of such interactions. However, Gould, Cross, Pisani, Munfakh, and Kleinman (2013) assessed ASIST trained crisis call centre workers in comparison to non-ASIST trained workers in their communications with suicidal callers. They evaluated over 1,500 calls measuring behaviours in a real-life setting, which provided support for the effectiveness of ASIST.
This study also used a waitlist research design which provided evidence that skills learnt through ASIST were maintained 18 months after training. Nevertheless, these were crisis call centre workers so results may differ with lay people. There are studies that use simulated scenarios or paper tests to test actual skill (Cross et al., 2010; Griesbach et al., 2008; Rodgers, 2010; Sareen et al., 2013). Cross et al. (2010) used video evaluations of realistic simulated suicide role-plays to assess the observable skills learned through QPR training. Sareen et al. (2013) used the suicide intervention response inventory (SIRI) to assess intervention skills in their randomised controlled trial of ASIST trained individuals, while McKay et al. (2012) used pencil/paper tests to assess actual knowledge which consisted of true/false, short answer questions, and a scenario accompanied by short answer questions for both SafeTALK and ASIST trained community members.

While the research on ASIST has been generally positive, some aspects have been criticised. For instance, Griesbach et al. (2008) reviewed ASIST with over 2000 participants using survey, interviews, and focus groups. Self-reported levels of knowledge, confidence and skills in relation to intervening with someone at risk of suicide increased considerably immediately after training and were largely maintained, but there were mixed views on the actual intervention model. Some participants considered it not appropriate for everyone and some participants had difficulty contracting the safe plan. The most challenging aspect reported by the research participants was asking people directly if they were thinking of suicide. Another study using school staff participants found that training did not significantly increase identification and referral of students (Wyman et al., 2008). Both these studies lead to questions of why people find asking directly so difficult, and what is inhibiting identification and referral despite the training?
The evidence that supports the efficacy of SafeTALK come from a range of populations including Australia, Niagara, and Scotland. In Scotland, McClean (2007) conducted a pilot study of SafeTALK using 239 community participants where 80% indicated they believed they would be more likely to recognise signs, approach, ask, and connect to resources, and similar results were found by Mellanby et al. (2010) in a small scale study using 17 Scottish veterinary undergraduates. The Niagara region study (Niagara Region, 2015) recruited 500 participants to evaluate knowledge, beliefs, attitudes and skills in relation to suicide in general and SafeTALK in particular, using both qualitative and quantitative methods, which resulted in generally positive findings in support of SafeTALK. In Australia, McKay et al.’s (2012) veteran study assessed both ASIST (n=19) and SafeTALK (n= 16) and found SafeTALK was particularly effective.

There is currently a lack of published studies evaluating gatekeeper programmes using New Zealand data. Studies conducted with New Zealand participants are important as there may be population differences that exist in New Zealand that may confound the results of studies conducted in other countries. Communities and cultures have different values which need to be considered when designing and implementing effective gatekeeper programmes. For instance Māori, who are disproportionately represented in suicide statistics, have cultural differences that may affect how they prefer to intervene. As such, it is important to use New Zealand participants, assess local data, and use education programmes specific to the local community, to see if there are population differences that affect the findings of studies conducted overseas. The only published research on QPR and ASIST in New Zealand is the Ministry of Health commissioned evaluation comparing both programmes (Oliver, 2015), and there does not appear to be any published local studies assessing SafeTALK. Oliver’s (2015) evaluations supported QPR over ASIST due to its
cost effectiveness and easier accessibility, although actual effectiveness and outcomes were matched. The Ministry of Health has also revealed plans for a new National Suicide Prevention Programme for New Zealand aimed at increasing skills in understanding risk factors, recognising signs, and actively intervening, however this is still being designed (Ministry of Health, 2017).

In conclusion, gatekeeper education programmes can generally be considered a positive component of an effective prevention strategy. If successfully utilised, they would lead to larger numbers of people within the community being knowledgeable about warning signs and risk factors, and having the skills to be able to recognise suicidal behaviour, support effectively, and refer onwards. Current gatekeeper programmes that have support in the literature, and which are widely disseminated are QPR, ASIST, and SafeTALK. However, New Zealand specific literature is lacking on these programmes. Published studies using New Zealand data are important to ensure confidence that the programmes will be effective within the local environment, and to understand local characteristics that may be relevant.

**Suicide Communication**

**Communication theories.**

Most general theories of communication posit that communication involves both the sending and receiving of messages, encoding and decoding, with both components imperative for effective communication, in a reciprocal manner (Hargie, 2017). Further, Speech Act Theory (Austin, 1962; Searle, 1969) considers the communication of speech to be a type of action. This action has three parts: the locution (the actual words), the illocution (the intended meaning), and the perlocution (the actual effect on the hearer -
which may not necessarily correspond to the illocution of the speaker). The speaker usually exhibits a certain psychological state that is complementary to the illocution act, which suggests to the hearer that the speaker is sincere (Vanderveken, 1980). This sincerity condition is considered important for correct perlocution. When speech contrasts with the outward psychological state of the speaker, it can challenge and confuse the hearer. Similarly, when speech is indirect rather than direct, it imposes great demands on the hearer because they have to infer the meaning of the communication, which can lead to misunderstanding. Despite these challenges, indirect speech is commonly used over direct speech. One theory is that it is a strategy to save face, especially when a topic may be taboo such as suicide. Goffman (1967, 2003) introduced the concept of face-work, mutual efforts to save face during social interaction. The concept of ‘face’ relates to notions of embarrassment, humiliation, and vulnerability in interaction with others (Brown & Levinson, 1987; Goffman 1967). Saving face relates to the defensive saving of a person’s own face as well the protective saving of the other person’s face (Goffman, 2003). This is because saving one’s face depends on everyone else’s faces being maintained (Brown & Levinson, 1987; Goffman, 1967, 2003). Brown and Levinson (1987) extended this concept further arguing that as the weight of the threat to face increases, there is a greater tendency to use more indirect forms of communication.

Theory of suicide communication.

The theory that people provide clues for their suicidal intentions was posited and popularised by Shneidman, and termed suicide communication. Shneidman and his colleagues founded the Los Angeles Suicide Prevention Centre in the 1950s and conducted a number of psychological autopsy studies. Psychological autopsy is a method in which the psychological and contextual circumstances preceding suicide are investigated through
interviews with those closely associated with the person who committed suicide, autopsy reports, and sometimes the suicide notes left behind (Conner et al., 2012, p. 86). Their findings revealed that approximately 80% of those who had committed suicide had provided clues prior to suicide (Shneidman, 1985; 1996). Shneidman (1985) classified these clues into four areas: verbal, behavioural, situational, and syndromes of suicide.

- Verbal clues can be direct, “I’m going to kill myself”, indirect, “People would be better off without me”, and coded “You won’t have to put up with me for much longer.”

- Behavioural clues can also be direct or indirect, such as suicide attempts which can be considered as ‘a practice run’ (p.113), and indirect behavioural clues can be giving away prized possessions, making a will, and other actions of sorting out affairs.

- Situational communications can include situations that create a “psychological emergency” (p. 113) such as financial or familial stressors.

- Syndromes of suicide include the symptoms of depression, particularly in the period when an individual seems to have made an improvement, or disorientation, especially when there may be hallucinatory commands (Shneidman, 1985).

Through his research, Shneidman found there were elements common to approximately 95% of suicides, which he outlined as the ‘Ten Commonalities of Suicide’ (1985, 1996). Three of those commonalities are particularly relevant to the current study: the common purpose is to seek a solution, the common psychological state is ambivalence, and the common interpersonal act is communication of intention. This communication of intention is described as “Individuals intent on committing suicide, albeit ambivalently minded about it, consciously or unconsciously emit signals of distress, whimper of helplessness,
pleas for response, opportunities for rescue in the usually dyadic interplay that is an integral part of the suicidal drama” (Shneidman, 1996, p. 135).

The commonality of ambivalence posits that a person feels that they have to commit suicide but, simultaneously, desires rescue and intervention (Shneidman, 1985). This highlights the potential importance of recipients of the suicide communication. It should be noted that despite these patterns or commonalities being found in a large proportion of suicides, they still do not make suicide any less complex and individual.

This basic model of suicide as a communicative act has been supported and extended. Qvortrup (1999) proposed a four-factor model of suicidal communication based on speech-act theory, but was differentiated by its function: emotional toward others, regulative toward others, emotional toward oneself, and regulative toward oneself. Knizek and Hjelmeland (2007) extended this further through the development of their model of suicidal behaviour as communication (MoSBaC) which utilises semiotics, conversation analysis, hermeneutics, and discourse analysis to better access the verbal and non-verbal data in the communicative act.

**Suicide communication – the literature.**

A number of studies have focused on communications and clues, as described by Shneidman, prior to suicide (e.g., Barraclough, Bunch, Nelson, & Sainsbury, 1974; Latakiene et al., 2016; Orbach et al., 2007; Owen et al., 2012; Pompili et al., 2016; Rasmussen, Dieserud, Dyregrov, & Haavind, 2014). There are differences in how each study defines suicide communication, as some studies only include verbal communication (which can be direct or indirect), while others include both non-verbal and verbal
communication. Pompili et al. (2016) conducted a meta-analysis of studies reporting a prevalence of suicide communication analysing 36 studies and 14,601 completed suicides. Suicide communication, either verbal or nonverbal, was found to be expressed in 45.5% of those who died by suicide, qualifying this figure as a likely underestimate due to the problem of multiple operational definitions of suicide communication, especially for indirect communication. Findings of the individual studies ranged from 15% to 100%.

Psychological autopsy (PA) methodology has been used in many studies to explore if and how people communicated their suicidal intentions and how the recipients of the communication interpreted it. Suicide studies cannot take into account the point of view of the deceased person, and so the state of mind of the participants cannot be checked for accuracy. However, PA studies review the deceased’s suicide notes in conjunction with perspectives of friends and families in an attempt to reconstruct the individual’s status immediately prior to completing suicide, e.g., Rasmussen et al. (2014) and Rogers and Lester (2010). Psychological autopsy studies, like most methodologies for studying suicide, rely on retrospective accounts which may be influenced by memory, emotions, and cognitive bias related to the participant’s own role. This can be further complicated by the time frame of research in relation to the time of death (Conner et al., 2012). Research that is conducted at a later time period will have more memory effects than one conducted much closer to the time of death, and ones conducted closer may have more emotion effects than later ones. As a result, findings from PA studies with different time frames can be difficult to compare. Despite these limitations, PA studies are useful and their findings important. Studying suicide is inherently problematic (due to its low base rate and due to its fatal nature which denies the opportunity to interview the deceased), and the PA
methodology is essentially considered ‘the next best thing’, as it is both practical and validated (Conner et al., 2012).

An early finding by Rudestam (1971), in a study with both American and Swedish participants, was that 80% had indirectly informed others about their suicidal intent and 60% had directly communicated their intent verbally. More recently, Owen et al. (2012) focused specifically on verbal communication in an analysis of 14 cases, and found that 11 of those cases had expressed either direct (“I am going to hang myself”) or indirect verbal communication (“I can’t do this anymore Dad”), often multiple times to multiple people. Owen et al. (2012) focused on a particular suicide communication event (SCE) that was found to be pertinent when understood in retrospect. An SCE is described as a set of circumstances in which a person announces their suicidal feelings, thoughts, intentions, or plans, which can be communicated either directly or indirectly. Findings revealed that due to the use of potentially face-saving strategies such as indirect, humorous, and ambiguous communication, the SCEs were often misinterpreted and not adequately responded to at the time. In line with face-talk theory (Goffman (1967, 2003), such indirect communication can be understood as a way to save face due to the vulnerable position of the speaker. Their findings also highlight the problems of interpretation, the potential for miscommunication, and the significance of how a message is communicated when there is an incongruity between what a person is saying and how they are saying it; the sincerity condition. For example, “… and he’d say it with a smile, or he’d say it just as you’d say hello to someone.”

Face saving strategies can be seen in other PA studies, particularly with young male participants (Rasmussen et al., 2014; Sweeney, Owens, & Malone, 2015). In Ireland,
Sweeney et al. (2015) studied the suicide communication between young adult male friendships, with male case studies and male participants. Findings revealed a reluctance to discuss emotional or personal issues with their male friends, worries and emotion were only revealed within the context of alcohol consumption, and communication was inconsistent or ambiguous. When emotions or disclosures were revealed while drinking, neither party mentioned them again when sober. Friends dismissed disclosures because they judged that the person might not remember it or did not mean it. These males appear to be using face-saving strategies in their interactions and in their decisions not to mention the topic when sober. The suicidal male may not want to come across as weak or vulnerable to his friends, and his friends may have felt uncomfortable with the topic, resulting in a lack of follow up from either side. Avoidance was a common reaction in this group of young males due to discomfort of talking about personal issues, and a lack of confidence about how to respond, even if they had noticed some concerning behaviour. They did not explore reasons for suicidal thinking, nor did they seek advice from other sources. As this was a young adult male sample, it could be argued that their responses are related to gendered social roles, although these findings are also found in studies with both females and males.

This study also reveals the problem of alcohol intoxication in the context of suicide communication. Alcohol served to function as a facilitator of communication but conversely a barrier by hindering the recipient from taking the message seriously and pursuing it further. Such findings have been supported elsewhere (Owens et al., 2011; Owen et al., 2012).
Inconsistent and ambiguous suicidal communications have been identified in a number of previous studies (eg., Dunham, 2004; Kalafat & Gagliano, 1996; Owens et al., 2011; Rasmussen et al., 2014). The consequences for this type of communication can be shown in Rasmussen et al. (2014) study where participants commented that the suicidal male acted more cheerful and social than usual in the time leading up to their death. So, although these males communicated their intent through their statements and behaviour, referring to death as a place to go, using death as a threat, and acting in ways that did not make sense to their friends, these signs were not heeded. Similarly, in the Sweeney et al. (2015) study, while there was concerning behaviour, other behaviour served to counteract this, such as making plans for the weekend, which meant that concerns were not taken as seriously.

**Suicide communication – receivers.**

This shows that if the recipients of suicide communication do not understand the importance of what is being communicated, or do not respond effectively, then this can have repercussions for preventing suicide. In Rudestam’s (1971) study, it was found that the most common reactions by those hearing a suicide communication included disbelief, denial, and avoidance. Avoidance, disbelief and other inadequate responses to suicide communication have been found in more recent studies, and in studies with different methodologies (Cowgell, 1977; Latakiene et al., 2016). There are some studies where participants’ responded with interest and attempts to help, but these are usually young adult and adolescent samples e.g. Barton, Hirsch, and Lovejoy (2013) and Eskin (2003).

Latakiene et al. (2016) interviewed participants (age 18-62) from Lithuania who had attempted suicide, on their perceptions of others’ reactions to their signs of suicidal
intentions. The strength of this study is having the views of the people who actually attempted suicide, rather than retrospective accounts from friends and family. Similar to Rudestam’s (1971) findings, indifference, disbelief, and disengagement were the most common reactions. However, in the Rudestam study, some participants reacted with concern (although to a lesser degree than the other reactions), yet in the Latakiene et al. study participants felt there were no positive reactions from their recipients, such as offering to help or emotional support. This contrasted with the expectations of the suicide communicators, who described expectations of active and positive reactions such as physical rescue and deterrence from suicide. In the Latakiene et al. (2016) study, there were also reactions of provocation to commit suicide, which is dangerous as it can impel a person to commit suicide, as noted by some participants in the study. Indifference and disbelief are also dangerous reactions, as they can lead the suicidal person to stop talking about their intentions.

However, it is important to note that the participants’ perceptions may have been influenced by their mental state when they were feeling suicidal, and this study did not attempt to verify their perceptions with the recipients of the communications. Also, that there were no positive responses at all, and even provocation, may be a cultural variable related to the Lithuanian sample, a country with one of the highest suicide rates in the world. Cross-cultural research has shown that there are cultural differences in both communication and responses, related to attitudes and norms, (e.g., Hjelmeland et al., 2006; Rudestam, 1971), which is why it is important to conduct research using New Zealand data.
Responses of disbelief, denial, and avoidance could be partly attributed to face-saving strategies due to the taboo nature of the topic, in accordance with *face-talk* theory. Participants in Owens et al. (2011) study postulated that suicidal intentions were not clearly communicated due to shame and embarrassment, so they did not pursue concerns for fear of making the person feel uncomfortable, which supports this theory. Alternatively, such responses may relate to a lack of knowledge or confidence in understanding how to respond to something so frightening, complex, and challenging. Also, as mentioned in the preceding section, the person communicating their suicidal intentions may use humorous, indirect, incongruous, or ambiguous speech, preventing a proper decoding of the message, leading to misunderstandings as to the sincerity and importance of what they are saying. Due to the complexities of both suicide and communication, any of these reasons could be valid and probably are depending on the people, the situation, and the context.

Other factors can impede effective interpretation and responses, as shown by Owens et al. (2011) UK study. Participants in this study found it difficult to observe signs of distress, and would sometimes disregard signs of distress out of fear, or would choose to focus on positive signs to confirm what they wanted to see, an example of confirmatory bias. There was a fear of taking action—asking outright, involving others, and seeking outside help, due to the personal risks involved such as personal embarrassment. Other factors were linked to respecting rights to privacy, and due to a lack of knowledge about seeking help outside their personal networks. There was a sentiment of wanting to help but not knowing what to do which hindered them from doing anything.
Reluctance to acknowledge the communication due to lack of knowledge and confidence in responding, has been found in other studies (Rudd, Goulding, & Carlisle, 2013; Sweeney et al., 2015). Rudd et al. (2013) used a vignette methodology to compare the responses to a heart attack vignette, a suicide vignette without specific mention of suicidal thinking, and one that specifically mentioned suicidal thinking. Findings revealed that participants were less comfortable, less sure, and less hopeful they would be able to help when responding to a suicidal crisis compared to a heart attack. They were also less likely to access emergency services for a seriously suicidal individual. Few people selected the no response category, showing that there was recognition of suicidal risk that required help, but there were significant differences in confidence and helpfulness in the heart attack condition compared to the suicide conditions.

Using a vignette methodology, one UK study aimed to explore whether young adults aged 16-24 years old (50% aged 20-24) recognised depressive symptoms and how they thought the young person might respond to these symptoms and how they would respond, in a large sample of 1,125 participants (Klineberg, Biddle, Donovan, & Gunnell, 2011). In this study, two small vignettes were used. The first vignette had some indications of depression and the second vignette had a clear description of depression including suicidal thoughts. Participants recognised depression or a mental health problem in the second vignette more often than the first vignette, highlighting a problem for less overt scenarios. Gender differences were found, with females recognising depression in both vignettes more often than males, and recognising suicidal ideation more often than males, and females believed that the severely depressed person should see a doctor, more often than males. Males used more stigmatising terms describing the person as “going mad.” In addition, males from more deprived backgrounds (as indicated by parental occupation or place of residence)
were less likely to recognise severe depression or suggest that the person in the vignette should see a doctor.

Significantly, there was also a contrast with what a person knew they should do and what they thought they would do: implying that knowledge of potential help did not match what a person would likely do. The use of postal survey enabled a larger sample but limited a deeper understanding of participant answers; it did not allow for elaboration of answers and cannot assess individual definitions of depression for variability. While it revealed that knowledge and actions may differ, it cannot describe why this is; what processes are at work? It is also a study on depression rather than suicide per se. However, its findings may have implications for suicide prevention. It is certainly important for people to know risk factors and warning signs, but it is also important to understand how people would use this knowledge, whether they would intervene and how this would look. By revealing that potential knowledge did not always match intended action, it provides a starting point from which to explore reasons why.

Part of these responses relates to misconceptions and myths that seem to surround suicide. Prevailing beliefs about suicide are that people who talk about suicide do not follow through, that people who talk about suicide are doing it for attention, and that if you ask directly if they are having thoughts of suicide, you may put the thought in their head (SPINZ, 2010). These are all common beliefs yet they are myths rather than fact. Prevention programmes such as ASIST teach participants that if people are talking about suicide they are ambivalent and are trying to seek assistance on some level rather than doing so as an attention seeking strategy (LivingWorks, 2010). There is also evidence that
asking a person directly about suicide is a crucial step and creates an opportunity for the person to be open with you and talk about what is going on for them (SPINZ, 2010).

A study by Cowgell (1977) showed how myths and misconceptions can effect decisions. The study attempted to assess responses from the general population to suicidal communication using two taped simulated scenarios featuring a young woman talking about her problems. She described feeling alienated by her family, socially isolated, had experienced a recent break up, she described symptoms of depression, and in one tape, she described thoughts of killing herself and had decided on a method. The results revealed that participants rated both scenarios as low suicide risk, despite one featuring the person explicitly discussing a desire to commit suicide. The reason some participants did not consider the speaker to be at higher risk was the belief that those who talk about suicide are unlikely to commit suicide. Also, participants did not regularly mention suicide or death in their response to the person on the tape, despite the person explicitly mentioning her desire to end her life, showing an avoidance response like those found in Rudestam (1971) and other studies.

Similarly, there are myths and misconceptions about the ‘type of person’ who might be suicidal. This is shown in the Sweeney et al. (2015) study, where participants missed clues partly because they believed their friends were “not the type of person who commits suicide.” They believed that people who committed suicide were lonely, had no social support or job, or they abused drugs. Their friends tended to have good jobs, lots of friends, and were sociable, which helped to persuade them to overlook other signs. These examples highlight how myths and misconceptions can have a detrimental impact on interpretations and responses. To what degree are these myths present in the public’s
consciousness here in New Zealand? If we can understand what myths are pervasive, we can then counter this within prevention strategies.

In conclusion, there is theoretical and literature support for the idea that people communicate their suicidal intentions prior to suicide. Numerous studies have shown that warning signs can be communicated verbally (either directly or indirectly) or nonverbally through behaviour. Within suicidology, there is much less research that focuses specifically on the recipients of suicide communication, how they interpret and respond to signs of suicidal intent. Findings have revealed that common responses can more often include avoidance and denial, and the reasons for such responses are varied. These include misinterpretation due to communication difficulties, pervasive misconceptions about suicide, and cognitive biases. Other findings have shown a lack of confidence is an issue, a lack of knowledge, and that sometimes people have knowledge about warning signs but do not always act on this knowledge, although it is less clear why this may be.

**Attitudes Toward Suicide**

An important factor that may influence a person’s responses are their attitudes (individual and cultural) toward suicide and suicide prevention. Historically, attitudes to suicide have changed considerably over the course of time, and have differed (and continues to differ) depending on culture and place. In previous centuries it was considered taboo and sinful in many cultures, and practices and beliefs supported this. For instance, in England a body could not be removed via the doorway if a suicide occurred in the house otherwise the living could not use that door again (Farberow, 1989). Similarly, it was believed to be so unforgivable that God would deny entry to Heaven for those who took their own lives (Farberow, 1989). More recently, attitudes to suicide have been more accepting in some
cultures and countries, although it is still considered taboo, and is both immoral and illegal in some countries.

**Individual attitudes to suicide – the effects of gender and age.**

The literature has pointed to individual attitudes to suicide being affected by gender, age, and culture, of both the responder and the suicidal person, as well as what precipitated the suicidal act (Dahlen & Canetto, 2002; Stillion & Stillion, 1999). There has been evidence for gender differences in help-seeking behaviours, with males seeking help at lower rates than females, potentially as a result of gendered discourses of masculinity (e.g., Galdas, Cheater, & Marshall, 2005; Johnson, Oliffe, Kelly, Galdas, & Ogrodniczuk, 2012), and gender differences in helping behaviour with females found to be more responsive to helping (e.g., Jorm, Blewitt, Griffiths, Kitchener, & Parslow, 2005; Rosetto, Jorm, & Reavely, 2016). The act itself has gendered connotations with suicide attempters considered as feminine and male suicide attempters judged more harshly as a result, and [completed] suicide seen as more masculine with females who commit suicide judged more harshly than males (Canetto, 1997; Canetto & Sakinofsky, 1998). There is evidence that men are more accepting of the right to commit suicide although conversely they judge the person more harshly, especially when it is a male (Dahlen & Canetto, 2002; Stillion & Stillion, 1999). A recent study (Poreddi et al., 2016) found that women rather than men held more permissive attitudes to suicide, which highlights the significance of culture, as this was a study conducted in India. Suicide is illegal in India and is considered sinful in the religious perspective, which would make it more taboo and may effect male responses.

McAndrew and Garrison (2007) conducted a study to understand how potential suicide situations are perceived and whether the gender of the suicidal person is an intervening
factor using a sample of 40 undergraduate students aged 18-22 in the American Midwest. It involved a questionnaire with ten suicide scenarios that described different methods with female or male names. Part of the questionnaire involved 15 possible reasons and participants needed to indicate how morally justifiable they were. The results revealed that females who committed suicide due to loneliness, or a partner cheating or leaving was considered more morally justifiable than males who do so for the same reasons. Financial trouble was considered justifiable for males more than females. This highlights how responses can be linked to gender-related judgments.

In addition to gender, age differences have also been supported. Domino, MacGregor and Hannah (1988) used the SOQ, a questionnaire they developed to measure knowledge and attitudes to suicide, on a study comparing New Zealand and US collegiate attitudes. Their findings revealed there were attitudinal differences between the two nationalities (highlighting the importance of research conducted with New Zealand participants). The New Zealand sample believed more than their US counterparts that suicide behaviour was often a cry for help rather than signifying lethal intent. This can be potentially dangerous if they do not choose to take the person seriously. They did however generally disagree with the statement that people should not be prevented from committing suicide.

More recently, Beautrais, Horwood, and Fergusson (2004) examined knowledge and attitudes toward suicide using a sample of 25 year olds in New Zealand. The findings revealed that this age group did not have accurate knowledge about suicide, and held mixed attitudes toward suicide, both conservative and liberal simultaneously, although the majority believed that a person should be stopped from committing suicide, a similar view to the Domino et al. (1988) study.
Domino et al. conducted research on a range of populations using the Suicide Opinion Questionnaire, (e.g., Domino, Gibson, Poling, & Westlake, 1980). In contrast to Beautrais et al.’s (2004) findings of mixed attitudes, their findings revealed that students’ attitudes were generally accepting of the idea of suicide, although there were still many who believed it was a moral transgression. This difference may be attributed to student samples in Domino et al.’s studies while Beautrais et al.’s sample was from a birth cohort all aged 25. Students are likely to be a range of ages, and there may be attitudinal differences linked specifically to being a student. Adults considered it acceptable when someone had an incurable illness but it was otherwise viewed as a moral and religious transgression.

Sympathy, acceptance and permissive beliefs about a person’s right to die when it is precipitated by illness, particularly when it is an incurable disease, has also been supported in other studies (Dahlen & Canetto, 2002; McAndrew & Garrison, 2007).

Boldt (1983) also compared attitudes of two generations, youth and parents, in a Canadian study. These results showed that the younger population were less judgmental and held less stigma toward suicide than their parents, while the parents held more religious-moralistic attitudes. Other findings revealed that the young sample attributed suicide to society’s failings, while their parents considered it a result of both society’s and an individual’s failings. Such findings also support attitudinal differences between different generations, and support the findings that younger adults are more permissive.

Age and gender together also influence attitudes and responses. Studies on suicide attempters have found that young women are considered more sympathetic than older women or males, and younger female responders more sympathetic toward suicide attempters than younger males (Dahlen & Canetto, 2002). Batterham et al. (2013) found
that older age, male gender, culturally diverse backgrounds, less education, and less exposure to suicide were all factors associated with poorer knowledge, while younger age, male gender, and culturally diverse backgrounds were all associated with more stigmatising attitudes, in their large study on attitudes and knowledge using an Australian sample of 1,286 participants using an online survey. Klineberg, Biddle, Donovan, & Gunnell (2011) did not compare younger and older adults but rather young adult males and females, but their findings of males being less knowledgable and holding more stigmatising attitudes provides further support. Stigmatising attitudes have been associated with less helpful responses (Jorm et al., 2005; Rosetto et al., 2016).

Personal experience has also been shown to effect attitudes, with those who have had experience of suicide in some capacity holding more permissive attitudes to suicide than those without experience (Beautrais et al., 2004; Renberg & Jacobsson, 2003).

**The nature and structure of attitude.**

Eagley and Chaiken (1993) defined attitude as “a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour” (p. 1). This is a broad definition which does not describe the nature and structure of attitude. Is it one of affect or is it cognitive? Does it consist of a single component or multiple components? Understanding the structure and nature of attitude could more effectively aid interventions for suicide prevention. The three individual components of affect, cognition, and behaviour have all been proposed to describe the nature of attitudes. Thurstone (1946) and Scott (1969) were early proponents of attitude as the intensity of affect, with affect and evaluation often considered one and the same, each term used interchangeably (Eagly & Chaiken, 1993). In contrast, Asch (1952) was an early promoter for its cognitive nature,
while Campbell (1963) endorsed its behavioural nature. With respect to structure, Fishbein (1967) endorsed a one-component model of attitude, and others such as Rosenberg and Hoveland (1960) and Ajzen (1989) endorsed a three-component, or tripartite, model made up of the cognitive, affective, and conative (or behavioural) components, which are all seen as separate and distinct. The cognitive component is related to thoughts, beliefs and knowledge about an entity such as a belief that someone is weak for committing suicide or somebody is strong to be able to commit suicide, the former being a negative evaluation and the latter a positive evaluation of the same entity. Conative or behavioural components relate to actions, which may be intentions or actual behaviour. For instance, a person who considers that suicide can always be prevented might attempt to save someone they saw attempting suicide, or would hold beliefs that they would always help someone who was suicidal. Their cognitive beliefs influence their behaviour toward that entity. Affect relates to the feelings and emotions a person has toward the entity. For instance, a person might feel angry or sad when thinking about someone committing suicide, or they may have feelings of empathy or sympathy. These feelings can all be understood on an evaluative scale (such as very strong, very weak, or somewhere between), and again, influence behaviour.

Earlier studies have measured attitudes using the tripartite model providing some support for the model by showing convergent and discriminant validity for the three constructs of affect, cognition, and behaviour (Bagozzi, Tybout, Craig, & Sternthal, 1979; Kothmandapani, 1971; Ostrom, 1969). However, the magnitude of unique variance was quite small for the three constructs. Similarly, Breckler (1984) conducted two studies on attitudes toward snakes using the tripartite model and the one-component model of attitude. In the first study a snake was physically present, and the second study it was not
present. Breckler’s analysis supported the three-component model in the first study and not the one-dimensional model. However in the second study, both models were rejected although the data fit the three-component model better. So, the three-component model may not yet be fully supported as a formal model but it does provide a theoretical framework, has some research support, and makes intuitive sense. It also allows for thoughts, feelings, and behaviour to differ. For instance, a person may hold permissive beliefs about a person’s right to commit suicide yet faced with an individual communicating their suicidal intentions, they may actively try to stop that person from committing suicide, or it may evoke feelings of shock and despair. This means that all three components are important for prevention strategies.

**Theory of planned behaviour.**

Attitudes are important because they are linked to intentions and behaviour. Two prominent models that promote an attitude-behaviour relationship is the theory of reasoned action (Ajzen & Fishbein, 1980) and its extension the theory of planned behaviour (Ajzen, 1991). The theory of reasoned action considers that behaviour is linked to attitudes toward the behaviour and subjective norms. Subjective norms are defined as “the perceived social pressure to perform or not to perform the behaviour” (Ajzen, 1991, p.188). This theory has been criticised due to its assumption of volitional control. It has been pointed out that people may have good intentions toward a given behaviour but they may be reliant on others or may not have the required skill necessary. The theory of planned behaviour attempted to reconcile this problem by including the variable of perceived behavioural control. Perceived behavioural control is the belief a person has about their ability to perform the behaviour, which can involve internal (e.g. self-efficacy, ability) or external factors (e.g. reliant on others). The theory of planned behaviour has been found to be
superior to its predecessor and its efficacy is supported for a range of health related behaviours (Armitage & Conner, 2001). However, these theories restrict attitude to a single cognitive component with evaluation about behaviour a considered, rational procedure. The very names ‘reasoned action’ and ‘planned behaviour’ can imply this cognitive, decision-based process. It does not consider the possibility that cognitive biases can have an effect on rational deliberation.

Despite these potential limitations, the theory of planned behaviour has had support as a theory to aid in the design of suicide intervention programmes (Aldrich, 2015). Aldrich (2015) assessed college students’ intentions to intervene with someone suicidal using a self-report questionnaire through an online survey. The results showed that the TPB variables significantly predicted intention to intervene. Approximately 40% of the variance was explained by the theory of planned behaviour variables; subjective norms and perceived control were both positively correlated with their intentions to intervene, although attitude was not a significant predictor. In addition, Aldrich (2015) conducted a posthoc test to see whether exposure to suicide predicted intentions to intervene using a binary variable of participant exposure or no exposure. The theory of planned behaviour variables were still significant beyond exposure but suicide exposure approached significance, and perceived behavioural control accounted for more of the variance than subjective norms in the posthoc test. The 40% variance was in line with the theory of planned behaviour literature and therefore supports the theory (Armitage & Conner, 2001).

This was a student population so the results may be particular to this type of population and differ from the general population. Also, the study did not measure actual behaviour, but this is difficult to measure and a limitation of many studies on suicide. The theory of
planned behaviour has been shown to predict actual behaviour changes using other, more easily measurable variables such as exercise behaviour (Armitage, 2005), which provides evidence that intentions toward a behaviour does lead to actual behaviour.

In fact, the connection between helping intentions and actual behaviour has been supported in other studies. Rossetto, Jorm, and Reavely (2016) studied adults’ helping intentions and behaviours toward a person with mental illness in a study of 820 Australian adults using a vignette about a person with depression and suicidal thoughts, questions about past helping behaviours and follow up 6 months later to see if they had assisted someone as in the vignette. The results showed that past intentions and behaviours, and confidence in helping were important predictors of behaviour, ultimately showing that intentions can be used to predict future helping behaviour, and validating vignettes as a measure to predict behaviour (Rossetto et al., 2016; Yap & Jorm, 2012; Yap, Wright, & Jorm, 2011). This may point to the importance of perceived behavioural control, as confidence and past experience would likely increase self-efficacy and perceived control. The components of the theory of planned behaviour, which includes perceived behavioural control, attitudes, and societal norms, may be important for the intentions and subsequent behaviour of the participants in the current study. It may be that perceived behavioural control is of importance for the current samples’ decisions about helping suicidal persons. Lack of knowledge in how to help and lack of confidence has been implicated in other studies of helping behaviour, although to mental health in general rather than specifically suicide (Jorm, Wright, & Morgan, 2007). Similarly, attitudes and normative beliefs may have an effect on helping intentions. Hjelmeland (2013) consider it important to understand normative beliefs and attitudes around suicide behaviour (p.7), and stigmatising attitudes
have also been implicated in helping behaviour toward mental health problems (Reavley & Jorm, 2011).

To summarise, attitudes are an important component for this study due to their link to intentions and behaviour. The theory of planned behaviour is a model that theorises how the attitude-behaviour relationship is linked: through components of perceived behavioural control, attitude, and societal norms, which may all have relevance for this study. The literature points to differences in attitudes to suicide and to helping behaviours, depending on such factors as gender and age. Studies point to females being more knowledgable and responsive to helping, and males holding more stigmatising attitudes. Younger adults may hold more permissive attitudes toward suicide than older adults, although this finding is inconsistent.

**The Current Study**

Currently, there seems to be a lack of New Zealand research on community knowledge of warning signs, attitudes to suicide, and to intervention. These are all important components to understand if community members are to be effective in aiding suicide prevention. Two studies are notable (Beautrais et al., 2004; Domino et al., 1988). However, these studies were limited to a focus on young adults, with the former studying knowledge and attitudes of 25 year olds, and the latter comparing the attitudes of New Zealand and American college students toward suicide. Due to the current lack of published New Zealand data, the current study may be able to contribute to the efficacy of the currently available programmes, or to the development of new gatekeeper programmes specifically for New Zealand, through its evaluation of current knowledge, attitudes, confidence, and intentions.
around intervention using a community sample of lay people in New Zealand. Results may be used to further understand the barriers and facilitators to effective intervention.

This study focuses on suicidal behavior in general, with the exclusion of non-suicidal self-injury or deliberate self-harm where there is no suicidal intent. This study is not concerned with classifying suicidal behaviour by those who attempt suicide, those with suicidal thinking, and those who complete suicide, but is more concerned with the reactions of others to suicide behaviour. Whether a person is intending to commit suicide or is attempting suicide as a cry for help, they are still in distress and require support (Aldridge & Barrero, 2012). Findings have shown that previous attempts are a risk factor for future suicide, and suicide ideation a precursor to both fatal and nonfatal suicide attempts so all facets are important in the prevention of suicide and in the responses of others (Aldridge & Barrero, 2012).

**Aims.**

The overarching aim of the study is to contribute to suicide prevention. The aim of the study is to explore lay people’s knowledge of suicidal risk factors and warning signs, to explore their attitudes to suicide, and explore their intentions to intervene. A specific aim of this study is to enhance our understanding of how lay people interpret signs of risk, how they make decisions around signs of suicidal risk, what decisions they make, and how they believe they would respond to signs of risk. A secondary aim is to assess whether there are gender and age group differences in participants’ decisions about risk and intervention, as the literature would suggest there is. It asks the following questions:

What knowledge do lay people have about risk factors, warning signs, and signs of suicide communication?
Would a layperson believe they would intervene if someone were communicating suicidal behaviour?

How would they intervene?

Are there differences in knowledge and intervention beliefs and intentions depending on gender or age group?

- Hypothesis 1 - there are differences between males and females in their knowledge of warning signs of suicide risk.
- Hypothesis 2 - there are differences between males and females in how they believe they would respond to warning signs of suicide risk.
- Hypothesis 3 - there are differences in 20-30 year olds and 40-50 year olds in their knowledge of suicide warning signs.
- Hypothesis 4 - there are differences in 20-30 year olds and 40-50 year olds in how they believe they would respond to suicide warning signs.
Methodology

The study took a mixed methods approach, using both qualitative and quantitative approaches to data collection and analysis. The qualitative component included an interview during which participants were presented with a range of vignettes that were developed specifically for this research to explore and understand participants’ knowledge of risk factors and warning signs, and their attitudes toward suicide and suicide intervention. The quantitative component included a survey which included a validated measure and a series of additional questions to measure multidimensional attitudes to suicide, perceived knowledge, confidence, and intentions regarding intervention. The study took a concurrent triangulation mixed methods approach, whereby both types of data are collected concurrently and is then compared for convergences or differences (Creswell, 2009). In mixed methods approaches, the mixing can occur in any stage of the research (Creswell, 2009) and for this study, it occurs in all stages of the research: data collection, data analysis, and interpretation.

A mixed methods approach was chosen for its pragmatism, both methodologically and philosophically. Pragmatism values logic, and is a practical and active approach. Instead of assumptions about knowledge related to positivism and one objective reality (quantitative) or constructivism and multiple subjective realities (qualitative), pragmatism considers both views to be potentially valid, applicable and valuable. Nomothetic and idiographic knowledge are both considered legitimate (Fitzpatrick et al., 2015). Essentially, pragmatism is based on a “what works” paradigm rather than assumptions about knowledge (Denscombe, 2010), which seemed an appropriate philosophy for the current study. For this study on suicide, knowledge is sought in order to aid suicide prevention strategies (Fitzpatrick et al., 2015).
Further, it was considered necessary and relevant to include a qualitative component in this research. Currently there is an abundance of quantitative studies on suicidology in comparison to qualitative studies, yet qualitative studies can be considered as very valuable contributors for suicidological research. Both Hjelmeland and Knizek (2010) and Latakiene et al. (2016) argue in favour of qualitative studies because qualitative methods enable exploration and understanding of suicide behaviour in a variety of contexts. In contrast, quantitative studies tend to focus on linear causality, which can be argued as limited in scope for studies on suicide behaviour. In addition, Hjelmeland and Knizek (2010) argue that linear causality is uncommon in human behaviour more generally because it is so complex, variable and context driven.

This argument can also be applied to the behaviour of others toward suicide, for the same reasons, and is why a qualitative component is so important for this study. The researcher values each individual participant’s knowledge and responses, which are subjective and personal. So it requires a more in-depth methodology to understand more thoroughly about participant’s responses- to enable an understanding of how he or she interprets a situation and why they make that interpretation. However, the study also wanted to be able to make generalisations, as the overarching aim is to contribute to suicide prevention.

A mixed methods approach offers many advantages. These include being able to utilise the strengths of quantitative and qualitative approaches in one design, while minimising their weaknesses; corroborating both data types thereby enhancing the validity of the findings (triangulation), and being able to answer different research questions than would be possible with a single method (Denscombe, 2010; Johnson & Onwuegbuzie, 2004). In addition, it can provide a fuller picture when results of both data methods are
complementary, or if results are contradictory, this may show that more research is needed (Denscombe, 2010). As a result, it has been supported by a number of researchers, e.g., Creswell (2009), Johnson and Onwuegbuzie (2004), and Tashakkori and Teddlie (2003).

Despite these many strengths, it should be noted that mixed methods is not without its weaknesses. It is time intensive, analysis must be conducted on both types of data, and the researcher needs to be competent and familiar with both approaches (Creswell, 2009). However, ultimately a mixed methods approach was deemed most applicable for this study based on the research questions being asked, and due to the advantages previously noted. By using qualitative and quantitative data, the research can compare variables, it can explore the data for a deeper understanding, and both data sets can be compared, which will ultimately increase the validity of its findings.

**Participants**

Participants were 24 adults located in a single urban area of New Zealand. They were a convenience sample grouped into equal proportions: six male adults aged 40-50 (mean=44 years), six male adults aged 20-30 (mean= 26 years), six female adults aged 40-50 (mean= 44 years) and six females aged 20-30 (mean=25 years). These were grouped in this way in order to assess whether there were differences between gender and age group. Twenty-four was considered an acceptable number of participants as it would yield enough data for a mixed method study without interviewing unduly large numbers of participants considering the sensitive nature of suicide. The sample consisted of 66.7% who identified as Pākehā, 4.2% as Māori, 12.5% as Māori-Pākehā, and 16.7% were identified as other. The majority of participants were university educated (62.5%) and 16.7% had a
college/tech education, 16.7% completed high school, and one participant finished their education after Intermediate school. All participants took part on a voluntary basis.

Measures

Attitudes Towards Suicide Scale (ATTS; Renberg & Jacobsson, 2003).

The ATTS was used to measure participants’ attitudes to suicide. This questionnaire was developed to measure a broad range of attitudes to suicide in the general population. It is based on both the Suicide Opinion Questionnaire (Domino, Moore, Westlake, & Gibson, 1982) and the Suicide Attitude Questionnaire (Diekstra & Kerkhof, 1989), where attitude was defined in relation to different referent groups (people in general, themselves, and close relatives). The ATTS consists of 37 items scored on a 5-point Likert scale (1=totally disagree, 5 = totally agree). An example item includes: “People who make suicide threats seldom complete suicide” (See Appendix C for all 37 items).

Two editions were developed (1986 and 1996). The latter edition is psychometrically superior, and this edition was used for this study. Renberg and Jacobsson (2003) found that internal consistency for the whole instrument was .60, but Cronbach’s alpha coefficients for individual factors ranged from .38 to .86. Exploratory factor analysis revealed ten interpretable factors including the communication of suicide, suicide as a right, and preparedness to prevent, with 34 items accounting for 60% of the total variance. Renberg and Jacobsson (2003) posit that low internal consistency may be a result of the multidimensionality of attitudes to suicide, the heterogeneity of the participants, and because attitudes to suicide are complex.
The validity of the ATTS is supported overall. It has an identical factor structure to the 1986 edition, which supports high construct validity. Its criterion validity is partially supported through significant associations between respondent’s attitudes and their suicidal behaviours (Renberg & Jacobsson, 2003). In addition, face validity was ensured through consultation with both experts and laypeople during its construction.

The ATTS was originally evaluated with a Swedish normative sample, although it has since been used with other populations including Russia (Norheim, Grimholt, Loskutova, & Ekeberg, 2016), Korea (Ji, Hong, & Lee, 2016), and Japan (Kodaka, Inagaki, Poštuvan, & Yamada, 2013). In addition, reviews of suicide attitude measures have considered the ATTS to be one of the strongest measures, and it is considered appropriate and feasible for a wide range of populations (Ghasemi, Shaghaghi, & Allahverdipour, 2015; Kodaka, Poštuvan, Inagaki, & Yamada, 2011).

There are three subscales that are most applicable for this study: preventability, taboo, and communication. Preventability refers to a person’s beliefs about the potential to prevent suicide; taboo refers to negative attitudes and beliefs about suicide; and communication refers to beliefs around the communicative nature of suicide, whether persons communicate their suicidal intentions. Figure 2 shows the three subscales and the items for each subscale.

All of the items in each subscale are summed to produce a score for that subscale. Preventability and communication have 5 items each with a potential score between 5-15, while taboo has 3 items with a potential score between 3-9. Low scores on the preventability subscale point to stronger beliefs in its preventability, high scores for
communication point to stronger beliefs that people communicate their suicidal intent, and high scores for taboo point to stronger beliefs that suicide is not taboo.

<table>
<thead>
<tr>
<th>Preventability</th>
<th>Suicide can be prevented</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I am prepared to help a person in a suicidal crisis by making contact</td>
</tr>
<tr>
<td></td>
<td>It is human duty to try and stop someone from dying by suicide</td>
</tr>
<tr>
<td></td>
<td>Once a person has made up his/her mind about taking his/her own life no one can stop him/her</td>
</tr>
<tr>
<td></td>
<td>It is always possible to help a person with suicidal thoughts</td>
</tr>
<tr>
<td>Taboo</td>
<td>There is a risk of evoking suicidal thoughts in a person’s mind if you ask about it</td>
</tr>
<tr>
<td></td>
<td>Suicide is a subject that one should not talk about</td>
</tr>
<tr>
<td></td>
<td>If someone wants to commit suicide it is their business and we should not interfere</td>
</tr>
<tr>
<td>Communication</td>
<td>Suicide happens without warning</td>
</tr>
<tr>
<td></td>
<td>Most people avoid talking about suicide</td>
</tr>
<tr>
<td></td>
<td>Usually relatives have no idea about what is going on when a person is thinking of suicide</td>
</tr>
<tr>
<td></td>
<td>People who talk about suicide do not die by suicide</td>
</tr>
<tr>
<td></td>
<td>People who make suicidal threats seldom complete suicide</td>
</tr>
</tbody>
</table>

Figure 2. ATTS subscales that are most applicable for this study.

Demographic survey

Demographic questions related to age, ethnicity, occupation, education, and personal experience of suicide related to self, family, friends, acquaintances. Personal experience was divided in this way to explore whether there were any similarities or differences in responses depending on type of experience. It also included some general statements about suicide using a 5-point Likert scale. An example included, “I am very knowledgeable
about warning signs.” In addition, there were some true-false factual statements. An example included, “Total suicide rates in New Zealand have decreased since 2007” to assess factual knowledge.

**Vignettes**

Six vignettes were developed to depict a range of scenarios of people expressing suicide risk in various ways. Two of the vignettes are identical except for gender, as a way to explore if gender has an effect on participant decisions. The risk factors, warning signs, and suicide communications were based on factors that have been endorsed in the literature and prevention strategy guidelines (Ministry of Health, 2015). Two colleagues reviewed each vignette to increase reliability and validity. Figure 3 is an example of one of the vignettes (Mary), and all of the vignettes are included in Appendix E. Combinations of three vignettes were randomly assigned for each participant using a random number generator computer programme.

The vignettes were designed to assess people’s knowledge of risk factors, warning signs, and suicide communication, and to explore how people understand and arrive at decisions in relation to them. Vignettes are considered a useful method for understanding and exploring how people come to decisions, as it allows for insights in an unstructured way (Klineberg et al., 2011). Although vignettes have been used in other studies, these have tended to focus more specifically on depression or mental health rather than suicide *per se* (Amarasuriya, Reavley, Rossetto, & Jorm, 2017; Davies, Morriss, Glazebrook, & Wardlaw, 2016; Jorm, Christensen, & Griffiths, 2006; Klineberg et al., 2011; Rossetto, Jorm, & Reavley, 2014a,b; Yap et al., 2011). Vignette studies, particularly using adult community populations, seem to be underutilised in the research area of suicidology.
These vignettes may be a new methodology for exploring adult knowledge and attitudes to suicide in the community, and specifically, their reasons for intervening or not intervening with people who are distressed and suicidal.

<table>
<thead>
<tr>
<th>Figure 3. An example of the vignettes used in the study- MARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your close friend Mary (age 43) has been feeling depressed for a number of months and you have barely seen her lately because she has been so withdrawn. When you have spoken to her, she always sounds very down and ends up crying. Out of the blue, she calls you up for a chat. She sounds really calm today and even happy. She says “you’ve been a really good friend and I just wanted to say thanks for everything.” She mentions that she wants you to have her favourite necklace, the one she knows you’ve always loved. You try to protest but she really wants you to have it. You suggest catching up on the weekend but she asks you if you can make tomorrow instead. The next day you visit and she gives you her necklace. She really seems different and happy. You comment on this. She smiles at you, and tells you she’s made a choice to be happier. When you say goodbye, she gives you the biggest hug. You suggest catching up again next week. She agrees saying, “sure we’ll figure something out”. When you are about to get in your car to leave, she gives you another hug and says, “You take care of yourself okay”</td>
</tr>
</tbody>
</table>

**Procedure**

The present study received ethical approval from the Massey University Human Ethics Committee. Due to its focus on suicide, which is a sensitive subject, the study was not deemed low-risk initially and required full review by the University Human Ethics Committee. All participants were debriefed after the interview and received a community resource sheet detailing a range of resources they can access at any time if they feel distressed or suicidal.

All participants gave their informed consent to participate in the study. They were aware that their participation was confidential with no identifying data included in the study and
pseudonyms used instead of names, and that they could withdraw from the study at any
time until one week after the data collection interview. They could also receive a summary
of the findings if they wished.

Participants were a convenience sample recruited through the researcher’s own personal
networks. Recruiting females was easier than males, with only one male participant
initially expressing interest and agreeing to participate. Prospective participants were
emailed the participant information sheet (Appendix A), which outlined the study
procedure in detail and included necessary exclusion criteria, such as being currently
suicidal or suicidal over the last month, due to the increased potential for risk. Only one
prospective participant was not able to take part due to the exclusions. If participants had
further questions they were invited to contact the researcher, although no one had further
questions. Once they confirmed their participation, a date and location was mutually
arranged for each participant’s single data collection interview. This was generally
conducted at the participant’s own house. One participant chose to meet at the university
campus, four at their place of work, and three at a local cafe. The procedure for the single
data collection interview started with introductions and detailing the session, in an informal
relaxed manner. An Informed Consent form was read and signed, then participants filled
out the demographic form, which included ethnicity, education, occupation, personal
experience of suicide (to assess whether these factors influence responses), and answered
some general statements about suicide and some factual statements to assess current
knowledge. The next part was the vignette interview. This aspect was audio recorded for
ease of analysis (and deleted immediately after it was transcribed). Combinations of three
vignettes were randomly allocated to each participant to ensure a range of scenarios was
utilised. Hard copies of each vignette were given one at a time to the participant, and the
researcher read the vignette aloud after instructing the participant to stop when they thought something was a warning sign, risk factor, or a communication of suicide intent. They were then asked if they felt there were any other warning signs, how they would respond, and if they were empathetic to the person’s suicidal intent. Their answers were followed up in more detail for a richer, more in-depth exploration. This procedure was identical for all vignettes. Lastly, participants completed a questionnaire on attitudes to suicide (ATTS). A debrief was conducted immediately after the interview to assess for distress (although no participant felt distressed), then the participant was thanked for their time. The total time for this data collection was approximately one hour.

Data Analysis

As this is a mixed methods design, the analysis involved two components. For the quantitative elements, descriptive statistics were calculated for the ATTS, the general statement ratings, and some parts of the vignette. Due to the small sample size, the original 5-point response categories were collapsed into 3 responses, with ‘totally agree’ and ‘agree’ subsumed into agreement, and ‘totally disagree’ and ‘disagree’ subsumed into disagreement, and neutral remaining the same.

In addition, inferential statistics were calculated to assess for statistical significance between gender and age group. Non-parametric tests were chosen for this study due to the data types being nominal or ordinal, the small sample, and because the data are not required to have a normal distribution, (which can be harder to detect with a small sample) unlike its parametric counterparts (Pett, 2016). The Wilcoxon-Mann-Whitney U Test was deemed the most appropriate test in most cases as the data met its critical assumptions. First, the independent variables were dichotomous and the scale of measurement for the
dependent variables was ordinal: Gender (male and female) and age group (20-30 and 40-50) were the main independent variables in the study, and one of the dependent variables was confidence level (high, med, low). Second, the population distributions of the dependent variables for the two independent variable groups share a similar though unspecified shape. This was checked using the Kolmogorov-Smirnov two-sample goodness-of-fit test. Third, the data from the independent variables were from two independent, mutually exclusive groups. However, it needs to be noted that the participants were not randomly selected, which may have some implications for generalisability (Pett, 2016). IBM SPSS Statistics version 24 was used for all descriptive and inferential statistics.

The qualitative components utilised thematic analysis (Braun & Clarke, 2006), which is ‘a method for identifying, analysing and reporting patterns (themes) within data…in rich detail’ (Flick, 2014, p.421). This involved transcribing the data, thoroughly familiarising myself with the data, generating codes, searching for themes, and reviewing then defining themes, all necessary procedures outlined in Flick (2014). After transcribing the data, I read over each data set many times, making preliminary notes in the margin including any connections, similarities or key words that could form initial codes and then potential themes and subthemes, as well as any differences between participants, both individually and at group level (gender and age). Emerging themes were coded, and key phrases were highlighted to illuminate these codes and themes. Further analysis was conducted to identify whether themes were connected and could be further used to identify master themes. I was constantly conscious of being reflexive and ensuring any biases I had were not influencing the analysis, which can be a problem in qualitative research. As such, I was
constantly referring to the data, and using multiple phrases from the data to provide evidence of the themes.
Results

The primary aim of the study was to explore and understand lay people’s knowledge of warning signs of suicide risk, and how they believe they would respond to these warning signs. A second aim was to identify whether there were gender or age group differences.

- Hypothesis 1 - there are differences between males and females in their knowledge of warning signs of suicide risk.
- Hypothesis 2 - there are differences between males and females in how they believe they would respond to warning signs of suicide risk.
- Hypothesis 3 - there are differences in 20-30 year olds and 40-50 year olds in their knowledge of suicide warning signs.
- Hypothesis 4 - there are differences in 20-30 year olds and 40-50 year olds in how they believe they would respond to suicide warning signs.

Whole Sample Results

Three different data types were used to assess participants’ attitudes to intervening and preventing suicide, their knowledge about warning signs, and how their knowledge affects their responses. These were the ATTS questionnaire, general rating scales for confidence, intentions to intervene, and knowledge, and the vignette methodology.

The ATTS measures multiple components of attitudes toward suicide but the three subscales most relevant for the purposes of this study are attitudes and beliefs about taboo, whether suicidal intentions are communicated, and preventability, which were described in more detail in the methodology section. The median was considered the more appropriate measure of central tendency due to the small sample size, and the interquartile range was used as a measure of variability, although the mean, standard deviations, and range are also
included in Table 4. The results suggest that the majority of participants do not consider suicide taboo; they are unsure whether suicide intent is communicated, and they believe in its preventability. It should be noted that there were two outliers in the preventability subscale with very strong views that suicide is not preventable (both of whom were younger, female, pākehā, with experience of acquaintance suicide rather than friend or family). In addition, there was one outlier on the taboo subscale where the participant (also one of the outliers on the preventability subscale) held very strong views that suicide was taboo. This suggests that views on suicide as preventable and not taboo were strongly held.

Table 4

<table>
<thead>
<tr>
<th>Subscale (range)</th>
<th>Median</th>
<th>IQR</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taboo (3-9)</td>
<td>8</td>
<td>2</td>
<td>7.75</td>
<td>1.57</td>
<td>6</td>
</tr>
<tr>
<td>Communication (5-15)</td>
<td>10.5</td>
<td>2</td>
<td>10.88</td>
<td>1.8</td>
<td>7</td>
</tr>
<tr>
<td>Preventability (5-15)</td>
<td>7</td>
<td>2.5</td>
<td>7.46</td>
<td>2.7</td>
<td>10</td>
</tr>
</tbody>
</table>

Correlation coefficients were calculated to test if there was an association between the variables of taboo, communication, and preventability. The Spearman rank-order correlation coefficient was considered the most appropriate test, as the data does not meet the assumptions of the Pearson product-moment correlation coefficient. The results of the analysis indicated a negative relationship between prevention and taboo, with stronger beliefs in preventability correlated with weaker beliefs around its taboo nature ($r = -.523$, $p = .009$, two-tailed). The other correlations were not significant.

The rating scale that measured confidence to intervene revealed that just over half the participants (58.3%) would feel confident to intervene if they thought someone was
suicidal, a small percentage (8.3%) would not feel confident, and the remaining participants were neutral. The rating scale that measured fear of making the situation worse revealed that 41.7% of all participants feared they could make the situation worse, 33.3% did not believe they could make the situation worse, and the rest were unsure. The rating scale that measured intervention intentions revealed that the majority of the participants (79.2%) believed they would intervene if someone were suicidal, 16.7% believed they would not intervene, and the rest were unsure. Figure 4 shows the relationship between confidence levels and intervention intentions. Confidence increases the likelihood of intervening overall, but half of those participants who are not confident, or who are neither confident nor non-confident, believe they would still intervene.

The rating scales also measured knowledge of risk factors and warning signs. These items were joined into one scale to measure overall knowledge (as risk factors and warning signs are likely to be interchangeable for lay people) with the results revealing that 25% believed they were knowledgeable, 58.4% believed they were not knowledgeable, and 16.6% were undecided.

The participants’ responses to the vignettes were also assessed for confidence and intervention intentions, which enabled a comparison with the rating scales. The vignettes also assessed whether participants would ask the person outright if they were feeling suicidal because research shows that asking outright is an effective, sometimes necessary, strategy as it provides an invitation for the suicidal person to discuss their suicidal feelings honestly, and is an intervention strategy that is taught in gatekeeper programmes such as ASIST.
The scores for each individual vignette for asking if a person is suicidal, confidence levels, and whether the participant intervened, is shown in Table 5. The overall mean scores show that 34.2% were highly confident to intervene, 42.5% had a medium level of confidence, and 23.3% were not confident. Overall, 72% chose to intervene (however intervention, especially with the Mother and Pete, was not always in the context of suicide intervention but rather general help). Only 20.9% chose to ask the person outright if they were feeling suicidal.

A comparison between the rating scales and overall vignette scores revealed similar results for intervening (79.2% and 72% respectively) but the vignette overall scores revealed less confidence than the rating scales (confident 58.3% and 34.22%, neutral 33.4% and 42.49%, not confident 8.3% and 23.3%).
Table 5

Vignette percentage frequencies for asking outright, confidence level, and intentions to intervene.

<table>
<thead>
<tr>
<th>Vignette (n)</th>
<th>Ask %</th>
<th>Confidence %</th>
<th>Intervene%</th>
<th>Warning signs %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>Mary (17)</td>
<td>50</td>
<td>50</td>
<td>28.6</td>
<td>14.3</td>
</tr>
<tr>
<td>Jason (10)</td>
<td>20</td>
<td>80</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>Mother (9)</td>
<td>0</td>
<td>100</td>
<td>33.3</td>
<td>55.6</td>
</tr>
<tr>
<td>Pete (12)</td>
<td>0</td>
<td>100</td>
<td>50</td>
<td>37.5</td>
</tr>
<tr>
<td>Stranger (15)</td>
<td>*</td>
<td>*</td>
<td>46.2</td>
<td>30.8</td>
</tr>
<tr>
<td>Jane (9)</td>
<td>55.6</td>
<td>22.2</td>
<td>22.2</td>
<td>66.7</td>
</tr>
</tbody>
</table>

Note. n = number of participants viewing each vignette
* Stranger tells the participants directly so they do not need to ask

The vignettes included a range of warning signs such as verbal communication, behavioural signals, and feelings of being a failure. The percentage of recognition for each warning sign is shown in Figure 5. This was calculated based on the total number of participants who read the warning sign (based on total number of vignettes that featured the specific warning sign and total number of participants for each of those vignettes), and the amount of times it was identified.
Participants considered a range of intervention strategies as most appropriate for the vignettes. Figure 6 shows the overall frequencies of these strategies through all six vignettes. The informal strategy of talking to the person was the most commonly nominated strategy. Other common strategies include keeping the person safe by staying with them at the time, suggesting they see a counsellor or therapist, and involving others.
**Figure 6.** The total amount of participants that considered these interventions to be appropriate.

**Group Differences**

There were small differences between males and females, and between the 20-30 year old and 40-50 year olds on the ATTS subscales. The median (and IQR) scores for each age group for males and females are shown in Table 6. Males in both age groups shared similar views regarding taboo, but younger males held slightly more positive beliefs about the preventability of suicide than older males. Females in both age groups held similar beliefs about communication of intent, but older females held more positive attitudes toward its preventability.
To test if any differences were statistically significant for gender or age group, Mann-Whitney U tests were run. In addition, the Kolmogorov-Smirnov Two-Sample Test was run to check that the groups had similar (though not necessarily normal) distributions, an assumption of the Mann-Whitney U test. The results of the Kolmogorov-Smirnov two-sample test indicate that the distributions of attitudes and beliefs about taboo, communication, and preventability for the female and male groups, and the 20-30 year olds and 40-50 year olds, were similar. The results of the Mann-Whitney U test indicated that ratings given by the 12 males in the sample were not significantly different from the 12 females, and the 20-30 years olds were not significantly different from the 40-50 year olds on the variables of communication, taboo, and preventability (two-tailed, \( p < 0.05 \)), as shown in Table 7. However, within the 20-30 age group males and females were significantly different in their views on the preventability of suicide (female mean rank=8.6 and male mean rank= 4.4, \( z=2.060 \), two-tailed \( p = 0.041 \)). Nevertheless, this should be taken with caution due to the two outliers found on the preventability subscale that revealed strong views that suicide was not preventable, which were both young females.

**Table 6**

*Median and IQR for the two different age groups for each gender*

<table>
<thead>
<tr>
<th></th>
<th>Male (n=12)</th>
<th>Female (n=12)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20-30 (n=6)</td>
<td>40-50 (n=6)</td>
</tr>
<tr>
<td>Taboo</td>
<td>M (IQR)</td>
<td>M (IQR)</td>
</tr>
<tr>
<td>Communication</td>
<td>8.0 (2.25)</td>
<td>8.0 (0.25)</td>
</tr>
<tr>
<td>Preventability</td>
<td>10.5 (1.50)</td>
<td>9.5 (4.50)</td>
</tr>
<tr>
<td></td>
<td>5.5 (2.00)</td>
<td>7.0 (3.25)</td>
</tr>
<tr>
<td></td>
<td>7.5 (4.50)</td>
<td>9.0 (8.50)</td>
</tr>
<tr>
<td></td>
<td>11.0 (3.25)</td>
<td>11.5 (2.75)</td>
</tr>
<tr>
<td></td>
<td>9.0 (1.25)</td>
<td>7.0 (1.25)</td>
</tr>
</tbody>
</table>
Table 7

Inferential statistics for gender and age group differences on attitudes toward communication beliefs, taboo, and preventability.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age group</th>
<th>Taboo</th>
<th>Communication</th>
<th>Preventability</th>
</tr>
</thead>
<tbody>
<tr>
<td>U</td>
<td>z</td>
<td>p</td>
<td>U</td>
<td>Z</td>
</tr>
<tr>
<td>70.5</td>
<td>-0.091</td>
<td>0.93</td>
<td>47.5</td>
<td>-1.49</td>
</tr>
<tr>
<td>47</td>
<td>-1.47</td>
<td>0.16</td>
<td>71</td>
<td>-0.059</td>
</tr>
<tr>
<td>51.5</td>
<td>-1.226</td>
<td>0.24</td>
<td>70.5</td>
<td>-0.09</td>
</tr>
</tbody>
</table>

Note. Two-tailed, p<.05.

Frequency statistics were calculated for the individual vignettes to compare scores for gender, age group, and experience, as shown in the six individual tables that form Table 8.

The results for each vignette are discussed below:

Mary

Personal experience with suicide increased the likelihood for asking whether Mary was suicidal, choosing to intervene, and having more confidence to intervene compared to those without experience. There were no gender differences for asking outright, with equal percentages for asking/not asking. Females were more confident intervening than males, yet more males chose to intervene. Older adults were more confident to intervene compared to younger adults, chose to intervene more, and were able to identify more warning signs than younger adults.

<table>
<thead>
<tr>
<th>Ask (%)</th>
<th>Confidence (%)</th>
<th>Intervene (%)</th>
<th>Warning signs (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>Male</td>
<td>50 50</td>
<td>11.1</td>
<td>22.2</td>
</tr>
<tr>
<td>Female</td>
<td>50 50</td>
<td>60</td>
<td>0</td>
</tr>
<tr>
<td>Young adult</td>
<td>44.4</td>
<td>55.6</td>
<td>14.3</td>
</tr>
<tr>
<td>Older adult</td>
<td>57.1</td>
<td>42.9</td>
<td>42.9</td>
</tr>
<tr>
<td>Experience</td>
<td>63.6</td>
<td>36.4</td>
<td>30</td>
</tr>
<tr>
<td>No experience</td>
<td>20</td>
<td>80</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Stranger

The stranger (male) did not need to be asked about his suicidal intentions as he already says it outright. Males felt more confident than females, would intervene more often, and could identify more warning signs. Older adults and those without experience were less confident to intervene, although experience did not affect whether a person would intervene, with the majority choosing to intervene regardless of experience. Younger adults would intervene more often than older adults, and could identify more warning signs.

<table>
<thead>
<tr>
<th></th>
<th>Ask (%)</th>
<th>Confidence (%)</th>
<th>Intervene (%)</th>
<th>Warning signs (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>Male</td>
<td>*</td>
<td>*</td>
<td>62.5</td>
<td>12.5</td>
</tr>
<tr>
<td>Female</td>
<td>*</td>
<td>*</td>
<td>20</td>
<td>60</td>
</tr>
<tr>
<td>Young adult</td>
<td>*</td>
<td>*</td>
<td>50</td>
<td>37.5</td>
</tr>
<tr>
<td>Older adult</td>
<td>*</td>
<td>*</td>
<td>40</td>
<td>20</td>
</tr>
<tr>
<td>Experience</td>
<td>*</td>
<td>*</td>
<td>50</td>
<td>37.5</td>
</tr>
<tr>
<td>No experience</td>
<td>*</td>
<td>*</td>
<td>40</td>
<td>20</td>
</tr>
</tbody>
</table>

Note. * Stranger tells them directly so they do not need to ask outright.

Mother

None of the participants chose to ask her outright if she was suicidal. More females would intervene with her than males (no males chose to intervene). Older adults were more confident to intervene compared to younger adults, yet just slightly more of the younger adults would choose to intervene. All of the no experience group chose not to intervene.

<table>
<thead>
<tr>
<th></th>
<th>Ask (%)</th>
<th>Confidence (%)</th>
<th>Intervene (%)</th>
<th>Warning signs (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>Male</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Female</td>
<td>0</td>
<td>100</td>
<td>37.5</td>
<td>50</td>
</tr>
<tr>
<td>Young adult</td>
<td>0</td>
<td>100</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>Older adult</td>
<td>0</td>
<td>100</td>
<td>40</td>
<td>60</td>
</tr>
<tr>
<td>Experience</td>
<td>0</td>
<td>100</td>
<td>37.5</td>
<td>50</td>
</tr>
<tr>
<td>No experience</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>100</td>
</tr>
</tbody>
</table>
Pete

None of the participants chose to ask him outright if he was suicidal. More females chose to intervene, as did older adults. The majority of those with experience chose to intervene, while none of those without experience chose to intervene. This group had the second lowest overall scores for warning signs, with only 50% able to identify 3-4 and none identifying 5 or more. Young adults in this vignette had the lowest warning sign scores with 0% able to identify 3 or more.

<table>
<thead>
<tr>
<th></th>
<th>Ask (%)</th>
<th>Confidence (%)</th>
<th>Intervene (%)</th>
<th>Warning signs (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>Male</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>66.7</td>
</tr>
<tr>
<td>Female</td>
<td>0</td>
<td>100</td>
<td>40</td>
<td>60</td>
</tr>
<tr>
<td>Young adult</td>
<td>0</td>
<td>100</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>Older adult</td>
<td>0</td>
<td>100</td>
<td>42.9</td>
<td>42.9</td>
</tr>
<tr>
<td>Experience</td>
<td>0</td>
<td>100</td>
<td>50</td>
<td>37.5</td>
</tr>
<tr>
<td>No experience</td>
<td>0</td>
<td>100</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

Jason and Jane

The vignettes that described Jane and Jason were identical except for gender. Comparing the two revealed that females would ask if they were suicidal more than males, but especially with Jane, where no males would ask her directly. More males than females would intervene with Jason yet all females would intervene with Jane and no males would intervene with Jane. More younger adults would ask directly than older adults, and would intervene more often for both vignettes. Confidence levels were inverted with each gender: females had a medium level of confidence to intervene with Jason while males felt a mixture of high and medium confidence. In contrast, males had a medium level of confidence intervening with Jane, and females had a mixture of high and medium confidence. For participants who had some experience with suicide, more would chose to
ask directly with Jane than with Jason, they chose to intervene more than not intervene
with both Jason and Jane, they had slightly similar confidence levels with mainly medium
confidence followed by high confidence, although a small amount of participants had low
confidence for Jane while no participant had low confidence for Jason. Those without
experience would not ask outright, had low confidence yet would all choose to intervene,
and could identify more warning signs than those with experience in Jason’s vignette.
However, these results cannot be compared to Jane’s vignette as all the participants
randomly assigned to Jane’s vignette had experience.

<table>
<thead>
<tr>
<th></th>
<th>Ask (%)</th>
<th>Confidence (%)</th>
<th>Intervene (%)</th>
<th>Warning signs (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>Male</td>
<td>14.3</td>
<td>85.7</td>
<td>33.3</td>
<td>33.3</td>
</tr>
<tr>
<td>Female</td>
<td>33.3</td>
<td>66.7</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Young adult</td>
<td>28.6</td>
<td>71.4</td>
<td>16.7</td>
<td>50</td>
</tr>
<tr>
<td>Older adult</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>50</td>
</tr>
<tr>
<td>Experience</td>
<td>25</td>
<td>75</td>
<td>33.3</td>
<td>66.7</td>
</tr>
<tr>
<td>No experience</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Ask (%)</th>
<th>Confidence (%)</th>
<th>Intervene (%)</th>
<th>Warning signs (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>Male</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Female</td>
<td>71.4</td>
<td>28.6</td>
<td>28.6</td>
<td>57.1</td>
</tr>
<tr>
<td>Young adult</td>
<td>75</td>
<td>25</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>Older adult</td>
<td>40</td>
<td>60</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>Experience</td>
<td>55.6</td>
<td>44.4</td>
<td>22.2</td>
<td>66.7</td>
</tr>
<tr>
<td>No experience</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

Note. * Every participant who received this vignette had some experience of suicide.
Thematic Analysis

This study sought to understand what knowledge laypeople in the community had about suicide and its warning signs and how they would respond to people displaying signs of suicidal behaviour. Thematic analysis was used to uncover common themes related to warning signs and risk factors, and to intervention. Such themes can provide a deeper understanding of current knowledge and attitudes, and particularly of the processes that were used to make decisions, which may be useful for suicide prevention strategies. The themes that were uncovered are outlined in table 9. They are then described and explored in greater detail in the sections below. In this section, the names of the characters in the vignettes will be capitalised to differentiate between the pseudonym names of the participants. Figure 7 below shows the age group and gender of the participants.

<table>
<thead>
<tr>
<th>Female aged 20-30</th>
<th>Male aged 20-30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emma</td>
<td>Gary</td>
</tr>
<tr>
<td>Jill</td>
<td>John</td>
</tr>
<tr>
<td>Jackie</td>
<td>Patrick</td>
</tr>
<tr>
<td>Dianne</td>
<td>Jimmy</td>
</tr>
<tr>
<td>Jesse</td>
<td>Damien</td>
</tr>
<tr>
<td>Lauren</td>
<td>Paul</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Female aged 40-50</th>
<th>Male aged 40-50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jenny</td>
<td>James</td>
</tr>
<tr>
<td>Sarah</td>
<td>Tim</td>
</tr>
<tr>
<td>Megan</td>
<td>Stuart</td>
</tr>
<tr>
<td>Tracey</td>
<td>Chris</td>
</tr>
<tr>
<td>Lucy</td>
<td>Alan</td>
</tr>
<tr>
<td>Nicole</td>
<td>William</td>
</tr>
</tbody>
</table>

Figure 7. Participants grouped into age group and gender
Table 9

*Themes found through thematic analysis of vignette interviews*

<table>
<thead>
<tr>
<th>Themes</th>
<th>Description</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barriers to involvement</td>
<td>Related to consequences of personal embarrassment and of how the person may respond</td>
<td><em>I wouldn’t ask her the question ‘hey are you suicidal?’ because I’d be worried that would make her sad or depressed</em></td>
</tr>
<tr>
<td>Lack of intervention knowledge</td>
<td>Participants did not know how to intervene effectively, what to say and what formal support was available</td>
<td><em>I wouldn’t know in what way how to intervene.</em></td>
</tr>
<tr>
<td>Knowledge of warning signs and responses did not always match</td>
<td>Despite some awareness of warning signs, participant responses were affected by contextual factors such as intoxication.</td>
<td><em>I can see warning signs but if it happened just like this out of the blue I would potentially naively see this as a good sign.</em></td>
</tr>
</tbody>
</table>

Theme 1 - Barriers to involvement

The vignette interviews revealed that there were a number of barriers that hindered participants from wanting to get involved in asking a person outright if they were feeling suicidal or to intervening in any real way. These barriers related to personal embarrassment and the potential consequences of getting it wrong related to the reactions of the person.

*Personal embarrassment.*

Over a quarter of the sample had fears of overreacting or getting it wrong which they felt would be awkward and embarrassing:

“I’d think maybe I’d got the wrong message. Maybe it was just drunk talk and she’s stupidly drunk. If I’d made a big deal about it I’d feel like a dick.” (Jill)

“If you’re wrong it could be really embarrassing.” (Jenny)
“It seems like such an overreaction to ring one of these helplines when you don’t know.” (Jackie)

To offset potential embarrassment of getting it wrong, many participants felt they needed to be completely sure that a person was suicidal before they would feel comfortable intervening:

“I might ring the police if I was 100% sure that was what she was going to do. That would be really hard for me to do because I’d hate to be wrong.” (Sarah)

“I would intervene if I knew she was definitely suicidal.” (Jesse)

Sarah considered the action of calling the police as quite extreme and therefore a difficult action to take, as the consequences of getting it wrong would mean personal embarrassment, shame, and uncomfortableness in facing that person afterwards, and a potential loss of friendship. Sarah would therefore rather not take action if she were not completely confident that she was right. Although she would “hate to be wrong” by intervening when unsure, she does not seem to equate the potential for getting it wrong the other way- of not intervening when the person really is suicidal.

**Fears about how the person may respond.**

Nearly half of the sample was wary of getting involved because they were worried about how the person would react. They felt the person would be offended or react negatively if they brought up this conversation with them.

“I wouldn’t ask her the question ‘hey are you suicidal?’ because I’d be worried that would make her sad or depressed…. I wouldn’t want to upset her or maybe she’d be angry with me for thinking that. I’d be scared I’d upset her.” (Sarah)

“It’s almost as if you are implying weakness in that person by saying that. By saying hey I think you are in a state where you are about to kill yourself that’s
almost an insult. It’s like saying to someone your life is really shit right now and you’re not coping.” (James)

With Sarah, it seems she worries that it could affect her friendship if she showed her concerns by asking, and that it may also make the situation worse by increasing [the person’s] sad and depressed emotions. Equally, James might fear that he would be placing his friendship in danger by making a comment or question about their wellbeing. Yet neither participant considered that the person may actually appreciate the concern and interest and that it may have positive repercussions. Conversely, they do not consider the (more serious) consequences if their concerns about suicide are correct.

James’s quote here also reveals elements of stigma and taboo using words like ‘weakness’, and ‘an insult’ in relation to suicide. Although the quantitative data found that suicide was not taboo for the participants in this sample, there were some elements of stigma and taboo revealed in the vignettes. It seemed to be a contributing factor inhibiting participants from asking outright or wanting to get involved.

“Suicide freaks people out. That word is uncomfortable. Bringing something up that hasn’t happened yet that everyone is really embarrassed about. It’s also really final. It’s like admitting you know.” (Jenny)

“Most people I know wouldn’t be comfortable having that conversation.” (James)

Despite the study being about each participant’s personal, subjective views, Jenny and James generalise when discussing a more taboo or negative viewpoint. This may be because they do not feel comfortable revealing stigmatising views, a social desirability response. Alternatively, they may not even consider themselves as having such views, as generalising their views serves to normalises them.
Crossing boundaries.

Nearly one quarter of the participants were open to intervening but felt that there would be barriers created by the person so there was a sense of how to manage the process for such a sensitive topic. James and Gary would consider taking action but were cognisant of crossing boundaries:

“If it’s your business they will tell you…for me it’s probably more about boundaries. What I felt the boundaries were with that person.” (James)

“Feeling like it’s none of my business…I don’t want to get involved where I’m not wanted. If they said it’s none of my business I wouldn’t butt in.” (Gary)

These participants would take their cue from the person for their decision to become involved due to their sensitivity and awareness of personal boundaries within relationships. For some participants, if a person denied they were suicidal, it meant they would have to cease any further action regardless of whether they were still concerned; they did not feel they could take it further. For Dianne, she would ask JASON if there was any seriousness to his statements, but felt that it was “tricky because if he says no you can’t really do anything.” So even though there was enough warning signs for her to be concerned she did not know how to intervene further if Jason denied it beyond asking him to stay at hers so he was not alone. John also felt this way:

“In this situation if it was a work colleague and they were particularly resistant to coming home with you, you wouldn’t push it or force yourself on them to go back to their place.” (John)

James, Dianne, John, and Gary would rather not cross boundaries and would respect a person’s right to make decisions about whether they needed help over the potential consequences of what might happen. In contrast, Tracey said of MARY that she would ask outright, would stay with her and would let her know that she would need to contact other
loved ones to help keep her safe, and “I wouldn’t take no for an answer.” Tracey has had a few experiences of suicide through close friends and family and is now very confident about broaching the topic and intervening, although she considered this to be a partial consequence of her life experience, maturity, and age, “if you asked me 20 years ago I might have had a different way of dealing with it.” Tracey believed that her younger self would not have had the confidence she now has in dealing with something so serious, and would have been less empathetic and supportive.

The need for being completely sure and of it being the person’s own business can be seen in the responses to the different vignettes. The STRANGER received a high percentage of people intervening (73.3%) and the highest percentage of participants feeling confident to intervene with him (69.2%). The STRANGER outrightly says he has ‘feelings of wanting to die’ so there is no uncertainty. He has directly communicated his suicidal intent and reached out for help. When participants were weary of intervening, it was largely due to the potential risks involved with the relationship as a stranger. Patrick wanted to help the STRANGER in this scenario, but he highlighted this cost to self:

“If I felt that me entering the situation might add pressure or there was an overwhelming threat of physical force, if my own life was at risk I would probably reconsider helping.” (Patrick)

Similarly, Tim was wary of the STRANGER as he was not sure whether he was “serious or if he’s a nutcase.” He added that he would be “mistrustful in case someone was trying to con me.”
**Group support.**

One way that people managed the process was to involve other people in the intervention, a strategy described by one quarter of the participants. This seemed to serve two purposes: first, it offset the potential negative consequences if you got it wrong because it is not just you asking them or trying to intervene by yourself, and second, it is seen as more effective because it would be harder for them to deny it:

“If there’s 2 or 3 people …it probably spreads the embarrassment because if you get it wrong with someone it’s a pretty big insult - I think you’re really fucked in the head – it’s pretty insulting” (James)

“I think I’d look for support to approach this. Get all her friends and family around her, like an intervention. One-on-one I wouldn’t be confident. It’s quite taboo isn’t it. But once I got someone else with me and we said it together it wouldn’t be as bad.” (James)

James mentions that he would not be confident approaching this alone. This lack of confidence may relate to the potential embarrassment to self if he was wrong, the decision to cross personal boundaries, or in persuading the person they need help. Linked to this is the assumption made by some participants that a person who is suicidal will deny it if asked:

“I think it’s beneficial to have other people there…because Mary is going to deny it but with more people you have more of a bargaining tool, strength in numbers.”

(Stuart)

Stuart believes that a group of people rather than one individual (him) would strengthen negotiations with MARY in admitting she was suicidal and allowing them to help her. Connected to this was the idea that if they said no to only you, then you would have to accept it. But if they said no to a group, you would not have to just accept it. Rather you
could use the fact that multiple people had concerns to better persuade them to admit their suicidal intentions and accept support. Group support was more preferable than intervening alone for Stuart and James, and would increase the likelihood of them choosing to intervene with someone suicidal by minimising barriers.

Getting support from others was also important for other participants, in other ways. Chris wanted to let others know of his concerns about the MOTHER and JASON so they could give him advice on how seriously to take it, and John would be influenced by how others reacted to his concerns:

“Talk to one of the other mothers of what I saw and heard and the vibe I got…I’d much rather put this to someone else and get their advice because I don’t know much about it.” (Chris)

He also said of Jason that he “might mention it to his boss” in the morning.

“I would still leave but let other people know so there was a network of people looking out for her…if I contacted the first person and they said not to worry about it then I would probably leave it there.” (John)

While Chris and John were not concerned enough to intervene by themselves with JASON, the MOTHER, and MARY, there may have been some fears about the responsibility of knowing and not doing anything, and something actually happening- the potential consequence that the person may attempt or commit suicide. By involving others, they can feel that they have taken enough steps to be responsible yet can also ultimately pass on the responsibility.

Getting advice from others or letting others know so they can help to support the person instead or alongside them was a common strategy for this sample. However, Alan had very
strong views that it was not okay to talk to someone else about such a personal situation, “what I’m not a big advocate on is talking to other people without permission.” While he did consider it beneficial to involve relevant others he felt this should only be through discussion and agreement with the person, asking them if it were okay for others to become involved. In reference to PETE, he suggested asking him about involving his wife:

“How would you feel if I talked to [your wife] about it because I think two heads dealing with this is got to be better than one in your situation and she needs to support you.” (Alan)

Alan’s strong preference for getting permission first was due to his own personal experiences:

“Getting permission though is so important because I’ve had a friend who betrayed my confidence in that way [not suicide ideation but something very personal] and I’m not friends with that person anymore because they betrayed my trust.” (Alan)

Alan was the only person in the sample who was concerned about betraying confidence by talking to others. The other participants wanted to involve family, friends, acquaintances, and employers, without mention of discussing this first with the person. This highlights the complexity of how to manage such a process, as breaking confidence can have the detrimental effect of the potential termination of friendship, as in Alan’s personal situation. In addition, this may have future consequences if the person becomes suicidal later but that friendship does not exist anymore for the other person to help. Having said that, choosing to not break confidence by getting support from close others means that person may be the only one to know and be able to support them, and they may not want to be that involved, or know how to support them effectively.
Although half of the participants (50.3%) had no or low confidence to intervene, the rest of the participants (49.7%) felt confident enough to ask outright and to intervene. This seemed to relate to past experience of suicidal friends, family, and acquaintances, and was most notable in older females and younger males, although found in all groups:

“I would ask directly now. I had a friend who killed herself and I didn’t intervene and I didn’t do enough.” (Megan)

“To me it’s an important question to ask if you think someone is at that point, if you feel they are considering something drastic. Sometimes you have to ask those difficult questions.” (Tracey, who had experienced friends who had been suicidal in the past).

“I’ve had friends who have been suicidal so after the second friend I’m now more aware of red flags and making sure you do something.” (Jimmy)

“I’d feel very confident. I’ve done it before. Because sometimes they are not going to tell you but if you ask then they do tell you for some reason.” (Dianne)

There was a feeling by some of the participants that this was such a serious topic that they would have to intervene somehow despite a lack of confidence. Megan said she “would do it even if it made me uncomfortable,” and Damien said he did not “think you’d have any choice, I don’t think I’d feel confident but I think you’d just have to do it”.

Overall, there were a number of barriers to intervening or asking outright if someone was suicidal. The main barriers related to personal embarrassment and the consequences of getting it wrong. It was felt that people would be offended and would deny it, and managing such reactions was considered difficult and uncomfortable. One way that participants managed the process was to involve others in varying capacities. Those with the most personal experience of suicide were not so effected by these barriers, they would
ask outright and would directly intervene due to their own past histories with suicidal close others.

**Theme 2 - Lack of intervention knowledge.**

The second major theme that emerged was a lack of knowledge in how to intervene effectively. Most participants did not know what the most effective strategies were, or whom you should be contacting for more advice or support. For Jill and Sarah, not knowing what to do inhibited them from doing anything:

“*I wouldn’t know what to do. I’d go home and talk to my partner and say ‘man this lady I’m sure she’s on the verge of something’ but that’s as far as I’d go. I’d feel terrible but I wouldn’t know what to do. I don’t know if there’s a number you go ‘hey there’s this lady who I think is suicidal.’*” (Jill)

“I wouldn’t know in what way how to intervene. That would be my problem. Do I ring the police? Who would I ring? I don’t know. Do I tell a teacher? So no I probably wouldn’t intervene.” (Sarah)

This was a problem for Sarah for two of her vignettes, the MOTHER and the STRANGER. Sarah acknowledged that the STRANGER was a suicide risk but she did not feel she could intervene because she did not know what to do. Her lack of knowledge inhibited her getting involved despite awareness that he needed help, “*I’d intervene if I knew what to do,*” she said.

For Paul who did not want to intervene directly but would prefer to contact family to provide support (for MARY) there were real concerns for the consequences of his actions:

“I’d have a lot of fears about it. What if you made it worse? I suppose I’d leave and try and contact someone like a family member. I would not be confident asking her
directly, which is a hard thing to think about because what if you didn’t have enough time. You leave and she does it.” (Paul)

This is a dilemma that has been highlighted with other participants too, the balance between saying something to the person and dealing with the consequences of that (whether that is denial, anger, getting it wrong, loss of friendship, or embarrassment) or saying nothing and dealing with the consequences of that (potential suicide). Even those participants who were confident in asking outright if a person were suicidal and needed help, and were prepared to intervene were still less clear on actually how to intervene:

“I’d feel confident enough that I’d need to do something but not confident enough that I’m equipped to do something. I don’t know how to make it better without triggering the emotions that caused the despair.” (Gary)

“I think it’s a tricky thing because people don’t know how to respond. I’ve done it maybe once or twice and I didn’t know what to do and still don’t really so I think it’s really important for people to know who to contact and what to do.” (Dianne)

“It’s a bit unclear … when you need to do heavy duty help and also who are the appropriate people to call. I can’t remember anything at school. I can’t recall anything specific about what to do if you see anything worrying.” (John)

Participant responses.

The most common response was to offer support on an informal level by talking to the person, but offering practical solutions was also one way of responding. These included helping them find a job if unemployment was an issue (in the case of PETE) “I would try and help him find a job. I’d look to see if there was anything at my work” (Tim), offering friendship or babysitting (in the case of the MOTHER) “See if she wants to come to mine for coffee or I’d offer to look after the kids” (Dianne), or going on the phone to find help
(in the case of the STRANGER) “I’d probably Google places for him while I was sitting there” (Jill).

When there was immediate risk such as with MARY, JASON, and JANE, the interventions revolved around keeping them safe at that time by not letting them go home alone or be alone at that time, “I would probably take her home with me, I wouldn’t let her go home” (Lucy), “I probably wouldn’t let him leave by himself. I’d probably suggest he come back to mine” (Jimmy), “I would stay with her to make sure she was safe” (Tracey), “I wouldn’t leave” (William)

Beyond this was reference to external sources of support. Calling the police was mentioned three times, although one of these was in relation to the potential harm for the ex-partner rather than for the suicidal person’s safety. Lifeline or other hotlines were mentioned in four instances, taking the person to the emergency department was mentioned three times, and contacting a doctor was mentioned four times. The most common external source of support was to contact therapists and counsellors, which was mentioned in fourteen instances (although contacting a psychologist was mentioned only once). However, it was largely discussed in general terms of contacting a counsellor without describing how they would contact them (how would they choose which counsellor to call, what would they say, or how they thought they could help). In addition, although external supports such as Lifeline or the police were sometimes mentioned, there was some lack of clarity about whether this was the correct thing to do or how you go about approaching them:

“ I don’t know what to do, I don’t know who to call, I don’t know how to talk to them... so they don’t want to do it. Like is there someone I can call or a professional? I don’t know. Like I know there’s Lifeline but I don’t even know what
to do- like do you just call and say hey I’ve got a colleague who I think is suicidal.”

(Jill)

“I would want to get help but again who would I go to for that man. I don’t know whether it’s something you go to the police for? Or who to call. “ (Sarah)

There was limited knowledge of what to do after these strategies, and talking was often described in general terms, such as “just letting him know you’re there if he wants to talk” (Jesse) or “no matter what, things will get better” (Jackie), and “I’d encourage him to keep his chin up” (Chris). Emma said she “would do my utmost to encourage her. [I’d remind her] what she has to live for and how a guy is not worth it…I would try to bash positiveness into her head.”

A number of participants felt it was best to broach the subject in a different or less direct way. Patrick said [of MARY] that he would turn it on himself saying, “we haven’t hung out lately. I haven’t got anything else on today would you be interested in hanging out?”

Being less direct and less obtrusive increased confidence in starting a conversation, although many participants still did not feel that they could then actually ask the question outright. Damien said he “wouldn’t have any issues asking what’s going on? Is everything alright?” but that “broaching the suicide topic outright was a wee bit more difficult” even though “it would probably be a good question to ask. It’s something that cuts to the core”.

Some participants offered potential intervention suggestions that were more detailed such as Megan who was able to be specific in how she would she would intervene with MARY:

“We need to get you professional help because there are other options. Suicide is not the only option. Your medication may not be working well. If she’s been
depressed she’s likely to be on medication. Let’s try something else. Let’s go to the doctor and find out what we can do. I’d push that she’s got a wonderful life with lots of people who care about you. “

Megan was one of the participants with multiple experiences of suicide through a number of friends. As a result, she said she would be questioning everything [all the signs] and would be “very straight up about it” due to her past experiences where she was not so aware or forthcoming. Similarly, Jimmy was also more specific in what he would say and how he would intervene: “I would say ‘are you having suicidal thoughts or thoughts of killing yourself because it seems from what you are telling me that you are’” and said he would not leave her [MARY] and would take her to the doctors. His response to the stranger was to tell him, “This is not something you should do. There’s someone who cares about you and we are going to get you some help” and said he would take him to the doctors or the hospital. Again, this confidence and surety seems to be related to past experience. Jimmy linked his past experience to his current responses saying that he “had friends who have been suicidal so after the second friend I’m now more aware of red flags and making sure you do something.”

Overall, this theme highlighted the lack of information people have about suicide and how to intervene effectively. Many participants in this sample did not know how to intervene or who to contact. There was mention of community resources that are available such as Lifeline, the police, and counsellors and therapists, but participants were lacking in specific detail about if, how and when they should be contacted. They also did not know how to broach and discuss the topic with the person effectively, again lacking specific detail and using phrases that may not be so helpful, despite their best intentions.
Theme 3 - Knowledge of warning signs and responses do not always match.

The third major theme to emerge is that knowledge of warning signs and responses to the warning signs did not always corroborate with each other. Participants in this study were able to identify a range of warning signs, with 87.7% of the sample able to identify 3-4 warning signs from each vignette they were allocated, and 40.6% identifying five or more warning signs (despite perceived knowledge to be only 25% with the general rating scales). These included having depression, withdrawn behaviour, certain actions such as giving away possessions and acts of goodbye, lack of social support, feelings of being a failure, changes in behaviour, and verbal communications of intent. Yet despite being able to identify 3-4 warning signs and sometimes more from each of the vignettes, this did not always translate to considering the person suicidal, asking if they were suicidal, and intervening.

This juxtaposition can be seen with the MARY vignette. Of the participants who were randomly assigned to MARY, the majority found many clear warning signs, and she had the highest percentage of participants able to identify five or more warning signs (64.7%) of all the vignettes, and a high percentage of participants able to identify 3-4 warning signs (94.1%). Commonly identified warning signs included being depressed and withdrawn, giving away her necklace to you, wanting to see you the next day and being evasive about the next catch up (which participants connected to a time frame; that MARY knew when she was planning on committing suicide), the sudden change of mood from depressed and upset to calm and happy, and speaking almost in past tense –wanting to thank you, and the sense of saying goodbye:
“It sounds to me like she’s made a plan, she’s giving away her possessions, saying goodbye, that’s what people do when they make a plan, they make arrangements.”

(Dianne)

“All the signs. I don’t know if I’ve been made more aware of it through the media lately but there are all the signs.” (William)

Many participants felt the seriousness and imminence of MARY’s suicidal intent, with a number of them saying they would be over to see her even at the beginning of the vignette when she was depressed and withdrawn, and especially when she wants to give you the necklace:

“It’s so clear…I would stop at the ‘thanks for everything’ line. I would ask her straight up ‘are you suicidal?’ and I’ve had to ask that before with a friend.”

(Tracey)

Yet MARY did not attract the highest percentage of participants indicating they would ask her outright about suicidal thoughts or intent, or of intervening in a more active way. This seems to be due to the lack of direct verbal communication of intent, which would have increased participant confidence that they were not interpreting the situation wrong (and all the implications that it entails as discussed in the first theme). It also reveals that people can sometimes take warning signs at face value, taken as positive rather than negative signs. The fact she had depression and was withdrawn but suddenly changed her mood to a happy and calm one, the fact she was thanking you, and that she had made a choice to be happier, were all taken literally and positively for almost one quarter of the participants.

“I can see warning signs but if it happened just like this out of the blue I would potentially naively see this as a good sign” (John)

“I would think okay she’s feeling better, I’m happy for her.” (Jesse)
Jesse picked out being withdrawn, giving the necklace away, that she wants to see you so quickly and the fact that she seems happier and different as all potential warning signs and even mentioned that she knew of someone that displayed the sudden change of being happier and then committed suicide, yet ultimately she still took these warning signs at face value. Similarly, Sarah acknowledged some of the warning signs but did not want to pursue it further admitting she “would hope she was just happy.” It may be that Sarah does have some concerns but fear of the consequences of embarrassment or how the person would respond, impel her to want to take it at face value as it is easier this way.

Verbal communication of intent was widely considered one of the strongest warning signs in the vignettes, and was a factor in participants’ decisions to intervene with some of the vignettes. However, there were some beliefs that talking about it was a ‘cry for help’, or an attention-seeking strategy rather than a serious cause for concern. For instance, Paul said, “I believe that when people talk about it they don’t really do it” and Jill was conflicted, “It’s really hard with suicide because sometimes it’s just attention.” But the majority did not believe in this myth and rather felt that if anyone were actually speaking about it then they would have been seriously considering it in their minds.

“I don’t believe in the cry for help thing. I think when people talk about it they have been thinking about it for a very long time.” (Megan)

“People don’t admit as much as they are feeling so if she says she is struggling then she’s probably all the way up.” (Jackie)

In a comparison of those vignettes where there was verbal communication of suicide intent, the STRANGER was taken seriously by almost every participant while JANE and JASON were more often considered to be in the ‘cry for help’ category, despite an awareness of suicidal verbal communication in three different segments of their vignettes.
by every participant. Yet with the STRANGER, almost all participants took his intentions seriously. He was direct in his verbal suicide communication and he spoke seriously as well. This led to more participants being happy to intervene because there was less room for error. Communication that was indirect such as the MOTHER, or that was incongruous such as JANE and JASON, was more problematic.

 Unterlining importance of context. Contextual factors were important for the suicide communication messages to be taken seriously. This applies particularly when the person is intoxicated or when they speak in a tone that is incompatible with what they are saying. This can be seen with JANE and JASON, who were intoxicated when they expressed their suicide communications, and spoke in a light-hearted manner, which belied what they were saying and what they were going through with the breakdown of their relationship. The consumption of alcohol seemed particularly pertinent to the current study participants when making decisions about the seriousness of the situation, and whether they would actually intervene. Alcohol seemed to serve different purposes: it was considered a risk factor by potentially making feelings worse or making people more impulsive, “I think maybe the alcohol—that is a bad idea, she probably would go home and kill herself” said Jill. Likewise James said, “I wouldn’t be surprised to see her dead in the morning. She’s fixated on her partner, she’s frustrated, and she’s drunk.” For approximately half the participants, the alcohol was seen as a ‘truth tonic’, so the words that were spoken by JANE and JASON were seen as even more worrying in the context of their alcohol intake:

 “From my experience often the deep dark stuff comes out with the drinking. It’s not something I’d take very lightly.” (Gary)
“Alcohol can lower your inhibitions and that’s when the honesty comes out.”

(Damien)

“People will purposely drink and say all the things they want to say and then blame it on the drink.” (Jackie)

However, it served to reduce or question the credibility of the statements for other participants, so that it was taken less seriously than if someone had spoken it sober.

“That she’s drunk can also be misleading. You can’t always trust people’s judgments or what they are saying as truth...there’s a fine line when you are dealing with drunk people whether it’s bullshit.” (Stuart)

Stuart adds, “the fact she is drunk I’d put it down to that she’s drunk and she’s upset. She’ll be fine.”

“I think because it’s a drinking situation it can be a bit ambiguous. People can get a bit stupid when they drink. If there wasn’t any drinking involved I would be on high alert because he said he was going to kill himself.” (Jenny)

“I would probably leave it that night though. I wouldn’t intervene at that moment as it may not be serious.” (Lauren)

Alcohol consumption was conflicting for Lucy who felt that the impact of JANE’s verbal statements about killing herself was minimised because of the alcohol, yet conversely felt that her verbal statements of ‘I’ll show him’ were more serious in the context of alcohol because, “it can make you less rational”. Lucy was also confused by JANE’s light-hearted tone and appearance of having a good time despite the fact her ex-partner had just had an affair. It also served to decrease the impact of her verbal statements, and also linked back to alcohol as serving another purpose, “maybe the drink is bringing out how she’s feeling and maybe seeming happy is a cover?”
These different, often conflicting, views and responses to the consumption of alcohol and being intoxicated highlight how problematic this warning sign and risk factor can be. Alcohol and substance abuse are risk factors, increasing risk for suicide through such factors as increased impulsivity, heightened emotions, and for chronic alcohol or substance abusers, through contributing to the deterioration of a person’s normal functioning. Yet the responses of this sample highlights another potential factor for increased risk—how intoxication effects the reactions of others toward suicidal communications. This is particularly important given that many suicidal people do abuse alcohol and other substances as a coping strategy.

For these participants, the fact they were intoxicated was the most important consideration compared to their light-hearted tone, although this was often acknowledged as odd behaviour. All of the participants felt the incongruity of their tone to be a cover, “I think behind every joke is honesty” said Emma, and Jackie said, “even if its light-hearted there’s more thought than you’d think.” One participant, Patrick, even felt that it was more concerning when spoken in a light-hearted manner saying, “If he’d said it seriously and straight up I’d be slightly less concerned.”

Another reason why knowledge of warning signs and subsequent responses differed seems to relate to judgements made about whether their reasons were considered worthy of suicide. If it was not considered a good enough reason then the participants were more likely to chose not to intervene seriously despite being able to pinpoint a number of warning signs. A number of participants felt the people in the vignettes did not have good enough reasons to commit suicide. This judgement was made in eleven instances with four of the vignettes (the other two vignettes, MARY and the STRANGER, did not provide the
details of why they were feeling this way which was why they seemed to evade judgement). For instance, some people did not consider losing your job to be a valid reason to commit suicide (as in the PETE vignette), or for the end of a relationship to be a valid reason (as in the JASON and JANE vignettes), or struggling to cope raising young children by yourself (as in the MOTHER vignette) to be valid reasons, although these situations can precipitate suicide. For example, Chris said of PETE:

“I’ve come across people in this situation, people having a rough time, but they’ve just got on with it.”

Adding further “if he was suicidal… I think it’s quite extreme. I don’t see this situation- he has a family at home- it seems extreme to take your life because of a work situation.”

PETE’s situation was seen as common and not enough of a reason for committing suicide. The focus for these participants was on the loss of job rather than the emotions and behaviours that accompanied it or the other factors that may increase risk. Despite most participants being able to note his history of depression, family history of suicide, unemployment after 15 years stable employment, feeling like a failure, not being able to face his family, and potentially using alcohol, no participant felt they would ask him if he was suicidal, the majority considered him not a suicide risk and he had the lowest percentage of people choosing to intervene, equal to the MOTHER (66.7%). Despite this, some participants were very worried about him. Alan thought he “must be about to pop” and two others described his situation as almost identical to someone they knew who committed suicide (although they still chose not to actually ask him outright if he was suicidal).
Similarly, the MOTHER also had no participant deciding they would ask outright if she was suicidal, despite them noting some verbal communications potentially alluding to suicide. This communication was indirect compared to the verbal communications made by others such as the STRANGER, JASON and JANE, so although they noted her statements as being alarming, they did not see it as actual suicide communication. In contrast, Lucy considered her fears of ‘damaging her children’ and ‘sometimes thinks her children would be better off if she were not around anymore’ as “obviously suicidal thoughts. I’ve had a friend talk like that before and she admitted that she was having suicidal thoughts.” Most agreed that she needed help but intervention was related to her general distress rather than concern for suicide, and related to empathy for the challenges of raising young children as a solo parent, but it was considered a common situation that many go through and not worthy of suicide.

This common situation was echoed with the relationship woes of JASON and JANE. James felt that it was trivial to commit suicide over a relationship especially because she was so young, “Jane-she’s 24 really? Yeah it hurts but la-de-dah move on.” Similarly, Chris did not think a girlfriend leaving you was a worthwhile reason, unless it was through death and involved marriage and family loss:

“Having your girlfriend cheat and break up with you I would think suicide may be a bit of an extreme solution. Maybe a man who’s lost his wife and kids in a car accident would take you to a much darker place, I could understand. You get over a girl.”

Another aspect that served to decrease the impact of some warning signs and risk factors was their ubiquity in the community. Although depression was frequently correctly pointed
out as a risk factor, it was seen by a few participants as so common that its effects were
minimised. Jill said:

“ I know a lot of people with depression and anxiety- like all my work friends have
pill for depression and anxiety and they see counsellors.”

She adds, “Anxiety and depression, isn't that just life for some people?”

For Sarah, she acknowledged the STRANGER’s anxiety and depression but still did not
consider it important enough factors,

“ Depression and anxiety- sure it's a sign but it wouldn’t make me do anything
differently.”

Although less common (and not a warning sign or risk factor featured in the vignettes),
self-harming was mentioned by Jill as another risk factor whose seriousness was
minimised partly due to its seeming popularity among younger demographics. There are
conflicting beliefs about what the person is gaining from self-harming and it is seen as
attention-seeking by some, thereby creating confusion about how seriously to take it. Jill
noted that “people cut themselves to get attention and some people genuinely need help
and it’s hard to determine which is which.”

However, many participants were also able to be cognisant of warning signs and risk
factors in the vignettes by placing them in the overall context of each vignette. They were
able to pinpoint relevant warning signs due to the other warning signs involved. This is
important as in ‘real life’ such warning signs, risk factors, and suicide communications are
not clear-cut nor exist in a vacuum. Rather, they are contextually important and embedded
with other signs. In many of the vignettes, certain warning signs and suicide
communications were pointed out in relation to the overall context of the situation or in
relation to other warning signs. The MARY vignette had a number of warning signs that
participants were able to point out, but these were often qualified in relation to others. William described it when he said:

“Those are all signs to me only because you knew she was depressed and then if she’s made a choice to be happier that would be the only way you could make a choice with depression- to commit suicide”.

Sarah said of the MOTHER, “She admits she’s really struggling, feels like a failure, can’t take much more. The three together seem like a warning sign but only together.” Also, many participants considered JASON and JANE’s comment ‘I’ll show him/her’ as a warning sign of suicide threat because of the fact they had already alluded to killing themselves twice before this statement, because it involved the hurt and anger of a break up, and in the context of intoxication. By itself, it may not have been taken so seriously.

**Gender and age.**

The gender and age of the suicidal person was also a factor in determining whether and how participants would intervene, even if they were able to point out warning signs and assess that there may be potential risk. Tracey was more wary of intervening with the STRANGER because he was a stranger and also because he was a male. It meant she would be cautious and hesitant even though he directly verbally communicated his suicidal thoughts,

“For me he’s a stranger- ‘stranger danger’ - …also because he’s a male and I’m a female I’d be more on my guard.”

So although he makes a direct appeal for help, the potential cost for Tracey takes priority, which is a potential threat of physical harm. Like Tracey, the person’s gender effected James and Stuart’s decisions not to intervene, although their reasons were different. For
Tracey, a stranger who was male posed a potential risk for physical harm, whereas for James and Stuart it was due to how it may come across to others:

“If you are living alone you can’t bring her home and if you are living with a partner you can’t bring her home—it doesn’t look too good” [in partners view] (James)

“I’d probably let her go. She’s a female so it would be weird me taking her home to mine.” (Stuart)

How others may perceive the situation seemed to take priority over what may actually be happening in the situation. There was a fear that others may think a male was taking advantage of an intoxicated female in distress (again highlighting the complexity and problems of intoxication in relation to suicide), or that their partners would think this, and what effect that may have on their relationship. Of course, it is possible that females would also consider this option, but not mention it given the social stigma, and a female taking another intoxicated female home would probably not raise concerns by others in the same way it might with a male. It also highlighted the lack of intervention options that people consider. James and Stuart chose not to intervene because the only option they considered was to bring the female to their home to keep her safe, and because they did not feel comfortable with this option, the alternative was doing nothing.

Age was also a factor for some participants. For the younger male group, there was less confidence in intervening when the participant was older and female. Patrick, Gary, and Jimmy all commented of MARY (who is age 43) that they would be less confident with her than with someone their own age. Gary said he would not be the best person to talk to MARY compared to the other vignette JASON who is “male and more my age.” When participants were at a more similar stage of life with the suicidal person, there was more
empathy and more desire to help. Jenny felt more empathy for the MOTHER for this reason noting, “maybe I relate because she’s a woman. This seems more heartbreaking to me than the other ones.” Similarly, Tim felt more empathy toward PETE, “I'd imagine myself in that situation. You could personally relate.” PETE’s situation seems more pertinent for Tim because he is closer in age.

_Empathy and sympathy._

Although responses varied in the number of warning signs identified, and although there were some judgements around some of the reasons for suicide as inadequate and unworthy, the majority of participants were empathetic and sympathetic toward people who were suicidal. Jill commented:

“I understand that people’s lives are different from my life. It might be really hard what she’s going through and people’s mental health is different.”

Similarly, John said:

“I can understand that people get themselves into situations or that situations happen to you. And once you’re there it must be difficult to get yourself out of those feelings.”

Jimmy felt empathetic and offered a perspective that may be particular to younger adults where social media use is the norm:

“Sometimes life seems too hard for some people. Especially in today’s world. I think social media has a detrimental effect on society. You are not connected with people anymore. And they see all these people on social media and think I’m lonely.”
There were a small number of participants who felt both empathy and sympathy towards suicidal persons but also demonstrated the complexity of suicide. Most of these participants came from the older male group, and one other came from the younger male group. James displayed empathy:

“Sometimes people are in this situation where they feel they cannot fix what’s in their life”

But when thinking of a friend who had committed suicide, he found it more challenging to be empathetic:

“I could never work out in my mind what was going through [my friends] his head when he jumped off Grafton Bridge. That was the best choice. I’ve never got my head around that and never will”.

Similarly, Alan was empathetic; he could understand that “you just want everything to stop. You just want to have a rest”. He was somewhat supportive of suicide as he had a close friend who committed suicide and he was happy for her that she was not in pain anymore, but he also admitted he would have tried to prevent it if he had known at the time that she was suicidal. “I have a problem with suicide and I don’t have a problem with suicide”, again highlighting the complexities of suicide. Paul considered himself to be somewhat empathetic, but was hindered by his background with depression:

“I haven’t been suicidal but I have suffered from depression since I was eleven. I know I would never do it therefore it’s hard for me to understand…I wouldn’t want to put it on someone else.”

Stuart also described feeling “conflicted because I believe every problem can be resolved” and he ultimately considered it a selfish thing to do. Stuart described a person he knew who committed suicide, and was able to identify that this was due to the shame of not being able to provide for his family. However, Stuart questioned why, if he cared so deeply
for his family, he would commit suicide? “… because surely by taking his life he’s now affecting his family so deeply…your life might be shit but how can you do it to people you love? His son had to cut him down so to me…”

Overall, this theme revealed that being able to pinpoint warning signs and risk factors does not always mean a person will choose to intervene. The reasons for this relate to a need to be sure, characteristics of the participants and suicidal persons, and to a range of contextual factors, especially the problem and complexity of intoxication. The sample was empathetic and sympathetic to people feeling suicide in general yet there was judgement about whether a person had a valid enough reason to commit suicide, with relationship breakdowns, unemployment, and raising small children with no support seen as not valid enough, and impacting intervention choices.

In conclusion, the thematic analysis highlighted three main themes: barriers to intervention, lack of intervention knowledge, and knowledge of warning signs and risk factors do not always equate to intervening when needed. It seems that people are inhibited from getting involved through fear of personal embarrassment and the consequences of how the person will respond. They also do not know how to intervene effectively, having fairly limited and only general knowledge of what to say, do, and who to contact. This sample did know a number of common warning signs and risk factors, but being able to identify these does not always mean that they will intervene. The reasons for this incongruity are varied but include contextual factors such as intoxication creating doubt, gender and age differences decreasing confidence in their abilities to help, and beliefs around what reasons are valid for committing suicide versus what is not. All of these findings have implications for decisions to intervene and effective intervention strategies.


Discussion

Review of Main Aims and Findings

The aim of the current study was to explore and understand what knowledge lay people currently have about suicide risk factors and warning signs, what attitudes they hold toward suicide, and how they believe they would respond to someone communicating suicidal intentions. In addition, the study sought to explore whether there were group differences. It was hypothesised that males and females, and 20-30 year olds and 40-50 year olds would differ on their knowledge of suicide warning signs, and their intentions to intervene with a person they believed was suicidal. These questions were asked:

1. What knowledge do lay people have about risk factors, warning signs, and signs of suicide communication?
2. What are their attitudes toward suicide?
3. Would a layperson believe they would intervene if someone were communicating suicidal behaviour?
4. How would they intervene?
5. Are there differences in knowledge and intervention beliefs and intentions depending on gender or age group?

Knowledge of warning signs.

Participants were able to identify a number of warning signs in the vignettes, although it became problematic when warning signs were less obvious. Also, knowledge of warning signs did not always correspond to adequate, or any, intervention at times. The majority of participants believed there was a communicative element with suicidal behaviour but they sometimes found it ambiguous and difficult to interpret. Most of the sample were able to identify direct verbal communications such as the stranger’s comment of wanting to die. However, when statements were less direct, such as the mother’s statements about not
being able to take much more, and her children being better off if she were not around, it was more difficult for participants to decide whether it was suicide communication. Indirect communication was further problematic when behaviour was incongruous. For instance, the Mary vignette featured a number of verbal and behavioural clues but because she was calm and happy, it created some confusion. The problem of ambiguity and indirect communication for decisions about intervening has been found in other studies (Owens et al., 2011; Owen et al., 2012; Rasmussen et al., 2014; Sweeney et al., 2015).

**Misconceptions.**

Similarly, a number of misconceptions about suicidal persons were identified in the data which created further problems for interpretation. These included the belief that people who are suicidal do not want to talk about it, that those who talk about it do not mean it, that they will deny their intentions if asked, and asking a person directly if they are feeling suicidal will lead to negative reactions from that person. Literature and guidelines all support beliefs to the contrary (Ministry of Health, 2015; Spinz, 2010). Such misconceptions created barriers to interpreting, asking outright, and intervening.

In addition, most participants correctly considered depression and anxiety to be signs of risk. This supports previous findings that mental health literacy (especially about depression) is increasing in the community (Jorm et al., 2006), which is a positive finding. However, because there is now less stigma about depression and more people are open about having depression, it seems more prevalent. As a result, two participants noted but minimised its suicide risk – it was seen as too common to be a risk. Prevention strategies could reiterate its importance regardless of perceived ubiquity.


**Attitudes toward suicide.**

**Taboo.**

This sample held strong views that suicide was not a taboo subject in the ATTS questionnaire. Although this is heartening and may be a cultural difference for New Zealand compared to findings from other countries (e.g., Latakiene et al., 2016) some caution needs to be taken with these results. Participants were not randomly chosen, so it may be that this particular sample held non-taboo views, and may be a reason why they volunteered to take part in research on suicide prevention.

Furthermore, the vignette interviews revealed that some participants considered broaching the topic of suicide to be uncomfortable, believed it would be denied if asked directly, that it crossed personal boundaries, and that it has shameful connotations and implies weakness. These could all be argued as features of taboo. It is possible that participants do not think they have taboo beliefs, and may not recognise them as taboo, in the vignette responses. They may have normalised these beliefs, which can be shown in such statements as “Most people I know…” and “Suicide freaks people out” (p.75).

**Responses.**

Nevertheless, participant responses were generally more positive than previous suicide studies on adult populations (Latakiene et al., 2016; Rudestam et al., 1971; Sweeney et al., 2015) where there was disbelief and avoidance. Instead, there was concern and attempts to help alleviate the distress, more similar to Barton et al. (2013) and Eskin (2003) findings on younger adults and adolescents. This may be due to different methodologies as the previous studies were based on PA methodologies or interviews with people who had attempted suicide, while this study used vignettes and a questionnaire to understand beliefs...
and intentions about behaviour. Also, while there was no avoidance there was some
disbelief about Jason/Jane’s seriousness. Some (mainly male) participants considered it to
be a cry for help rather than imminent risk of suicide. New Zealanders have endorsed cry
for help beliefs in previous studies (Domino et al., 1988).

Would they intervene?

There were a number of factors that contributed to decisions about intervening.
Barriers that interfered with asking outright and intervening included fears related to
personal embarrassment, and the perceived consequences of getting it wrong. These
included negative emotional reactions from the person such as anger, shame, and sadness,
loss of the relationship, and making the situation worse. Broaching the subject was seen as
uncomfortable and derogatory. The majority of participants cited factors related to
personal embarrassment and fear of the person’s reactions in their decisions about
intervening. Consequently, there was a preference for being less direct. Such responses
support Goffman’s saving face theory, where communication is less direct and more
ambiguous as a way to ‘save face’, thereby decreasing embarrassment and awkwardness
for both people (Brown & Levinson, 1987; Goffman, 1967; 2003).

Furthermore, participants would intervene if they knew the person was definitely suicidal.
There was a need for certainty in their decisions to ask directly or to intervene. This has
implications for contexts where suicidal intentions are not directly communicated or
obvious, which may often be the case. A lack of knowledge and confidence about how to
intervene also inhibited some participants from responding at all. A finding that has been
found elsewhere (Sweeney et al., 2015)
Confidence and intervention.

Interestingly, even though nearly half of the sample feared that they could make the situation worse, just over half indicated they would still feel confident to intervene, and the majority still believed they would intervene. It may be that they are both confident and conflicted about their potential effectiveness. Confident that they would intervene and confidence in perceived ability may differ, especially as only one quarter indicated they felt knowledgeable about warning signs and risk factors. Alternatively, they may have felt conflicted but would intervene anyway as a way to avoid guilt in case the person does commit suicide.

Confidence was rated less highly in relation to the vignettes than to the rating scale questions. This difference in confidence levels in the rating scales and vignettes may be due to the decision-making processes needed in the vignettes. The rating scale asks about their confidence in intervening with someone who is suicidal but the vignettes required the participants to make decisions about whether they considered the person to be suicidal before taking action. This may hinder their confidence because of a fear of getting it wrong.

Cognitive biases.

Cognitive biases were also found to be a barrier for interpreting signs and intervening. Participants sometimes acknowledged possible warning signs but chose to disregard them, instead focusing on other signs that could disprove a need for concern, because they did not want to allow themselves to believe something was wrong. This is an example of confirmatory bias. This was seen in the Mary vignette. Some participants correctly noted a range of warning signs but then chose to view them as positive signs that supported their
narrative that she was not suicidal and there was no need for concern. Her sudden change from depressed and upset to happy and calm, and her messages of thanks were taken at face value. Similarly, lack of social support in the Mother vignette was argued as a protective factor by one participant because it meant she would not leave her children by themselves, and Pete’s family history of suicide was argued as a protective factor because he had seen the consequences of suicide and would thus choose not to devastate his family this way. These views highlight a lack of real understanding of the psychological processes that can affect a person who is suicidal. They especially demonstrate how psychological biases can potentially affect decisions to intervene because a person finds alternative signs to support their narrative. This difficulty heeding signs and looking for alternative explanations are consistent with Owens et al (2011) study.

_The normalcy bias._

Owens at al (2011) proposed the normalcy bias to explain these actions. The normalcy bias is defined as the tendency of people who have never experienced a catastrophe to disregard ominous signs and behave as if nothing is wrong, which can lead to critical errors in judgment. There is a strong desire for everything to be normal which inclines people to believe it is, even in the face of conflicting evidence. The normalcy bias may be supported in the current study, especially with the Mary vignette. Providing further support for the normalcy bias, participants who had experience of suicide on a more personal level, were the ones who saw signs and reacted strongly to ask outright and intervene actively; because they have experienced those ‘catastrophes’ previously.
Group support.

An important finding in the study was the role of group support, which can be both a barrier and a facilitator to intervention. A few participants considered themselves more likely to intervene if other people supported them. In addition, one third of the participants believed they would get others involved in order to make decisions about whether to intervene or not. Group support, therefore, is an important consideration as both a barrier and a facilitator. Group think theory (Janis, 1982) posits that small decision-making groups can undermine their problem solving ability to conserve the social structure of the group (Mohamed & Wiene, 1996). Three antecedents are required for group think: group cohesiveness, structural faults such as lack of impartial leadership, and a provocative situational context characterised by high task stress and low self-efficacy (Mohamed & Wiene, 1996). This can result in overestimation of ability so that fears and doubts are dismissed, closed mindedness, and pressures toward uniformity.

The stress of a situation where there is concern that someone is suicidal could clearly be considered an antecedent as described in group think theory. It would be easy for a group to be cohesive in their decision making because of the seriousness and desire for group support in making such a serious decision as to whether and how to intervene with someone exhibiting suicidal signs. This may lead to decisions to not intervene when intervention would actually be helpful. In this study, a couple of participants said they would be influenced by others and would not intervene if others felt it was not needed, regardless of initial concerns. Yet, if groups do provide support effectively it is a strategy that can be harnessed. More research is needed to explore and understand group processes and how best to utilise group support, so that problem solving is not effected by those factors found in group think theory.
The effect of context.

Gender.

The use of six different vignettes enabled an exploration of whether responses differed depending on the situation, characteristics of the suicidal person (e.g., gender, age, relationship to person) and of the participant (e.g., gender, age, past experience). Gender of the participant and the person in the vignette had some importance, a finding that has been identified in other studies (Dahlen & Canetto, 2002; McAndrew & Garrison, 2007; Stillion & Stillion, 1999). Older males were less likely to intervene with Jane because they were worried about its appropriateness; how it would look to their partners and others. Similarly, one female participant was wary of the stranger because his relationship to her was as a stranger and because he was male.

Indeed, it is interesting that there were differences in confidence and intentions to intervene with the Jason/Jane vignettes, despite being identical apart from gender. None of the male participants believed they would intervene with Jane yet a high percentage would intervene with Jason. None of the males indicated low confidence with Jane. This may be related to the gendered view that females typically attempt suicide as a cry for attention rather than actual intent, and it therefore may be considered an easier situation because it was deemed less serious, and the outcome less pressured. They choose not to intervene because they do not take it seriously, while they are more likely to intervene with Jason because they do take it seriously and the consequences are more dangerous. Alternatively, it may be linked to being the same gender. Supporting this notion is the finding that females were more likely to intervene with Jane than Jason. Being the same gender as the person may enhance empathy, sympathy, or perceived efficacy.
Proximity of relationship.

Proximity of relationship was put forth as a barrier to awareness because subtle changes could more easily be explained away in Owens et al. (2011) study. In contrast, participants in this study believed they would be more aware of signals and signs with Mary, their close friend, than the others. They believed that close proximity would facilitate awareness because they would be more aware of changes in the person. This difference may be due to the different methodologies, as Owens et al. (2011) used a retrospective PA study of actual suicides while the current study is a vignette methodology. Maybe logically it would make sense to be more aware with people closer to you, but in reality there may be emotional, cognitive, and psychological barriers that interfere. Also, Mary had the most participants choosing to overlook her warning signs, deciding to see them as positive signs, so proximity of relationship may actually be a factor here despite their beliefs.

Alcohol consumption.

In addition, the six vignettes showed that the contextual factor of alcohol intoxication can influence decisions. Alcohol and substance abuse is a known risk factor as it can decrease inhibitions and increase impulsiveness. It should be taken seriously, especially in the context of other risk factors. Yet, it confounded responses in varying ways. Some participants found it more worrying and others viewed the warning signs as less serious due to intoxication, which supports previous literature findings (Owens et al., 2011; Owen et al., 2012; Sweeney et al., 2015).

How would they intervene?

The vignettes revealed a range of intervention strategies that varied in their effectiveness. Informal strategies involved utilising the person’s social network (talking, recruiting
others, staying with the person), and formal strategies involved making contact with professionals (counsellors, therapists, the police, helplines). Informal strategies (especially talking) were more commonly mentioned, which supports previous findings (Jorm et al., 2005). Notably, with the exception of a few participants responding to the Mary vignette, most of the talking strategies were in general terms rather than actual risk assessment and creating a safe plan, a finding that is supported elsewhere (Rossetto et al., 2014b).

Many participants believed they were lacking in intervention knowledge, which affected their confidence and ability to intervene effectively, and sometimes their decision to intervene at all. When they were unsure of the best approach, they would sometimes take no action, despite a desire to help. There was also a lack of knowledge about when a situation requires urgent action. Owens et al. (2011) found that people did not know when, where, and how to seek outside help, a finding that was strongly supported in the current study.

**Crossing boundaries.**

Participants had difficulty taking action, as a result of the barriers mentioned previously. This finding is consistent with previous studies (Owens et al., 2011; Sweeney et al., 2015). Participants did not know how to navigate social norms and personal beliefs. These included not wanting to cross boundaries; if they wanted your help they would ask, and if they denied it then you could not take it further, despite any misgivings.

Yet interestingly, concern about crossing boundaries and a person’s right of autonomy, did not extend to involving others without the person’s permission. There is no doubt that having a support network can increase a person’s safety, and it increased participants’
confidence to ask and intervene when they involved others. It seems that concerns about crossing boundaries, and encroaching on a person’s privacy, are related back to participant uncomfortableness and embarrassment. It also raises the quandary of respect for the person’s privacy and autonomy, or keeping them safe. While safety should override privacy, there are more effective strategies that could include the person - letting them know that other people need to be involved.

**Group differences.**

The results of the study did not completely support the hypotheses that there are gender or age group differences. Quantitative analyses revealed that the sample did not differ significantly in their knowledge and attitudes to suicide in general and to its prevention by gender or age group. However, these results should be interpreted with some caution due to the small sample size, as it can be difficult to distinguish a null effect from a very small effect. Non-parametric tests are less sensitive than parametric tests so there is a greater chance of missing a small effect that does exist, thereby making a type 2 error (Pett, 2016).

Nevertheless, there were a number of non-significant differences between and within the age and gender groups. Gender and age group differences have been found in other studies (e.g., Batterham et al., 2013; Klineberg et al., 2011; Rossetto et al., 2014a). Older adults held more taboo attitudes than younger adults. Females believed there was communication of intent, more so than males. Within group differences revealed that older females believed in its preventability more than younger females while younger males believed in its preventability more than older males. There was one significant difference between males and females aged 20-30 on the variable of preventability, with young males holding more positive beliefs in its prevention. However, this is likely to be a result of two outliers.
with strong beliefs that suicide is not preventable, who both came from the female 20-30 age group.

In addition, there were a high proportion of participants who had indicated some personal experience in the demographic data. The results of the Mann-Whitney test indicated that there were no significance differences between gender and age group on the variable of experience. However, the vignettes enabled more in-depth exploration, which revealed that those with more intense personal experience (of others) were more likely to intervene, were more aware of warning signs and how they present, and were more likely to ask outright and instigate a conversation. A number of older adult females seemed to have intimate experience of helping suicidal friends or having lost multiple friends and these were the participants who thought it was important to ask outright, and were more specific in what they would say and how they would respond.

**Implications for Theory**

This study was more pragmatic than theoretical in its overall approach. However, it was underscored by the theory that people who are suicidal communicate their intent through verbal and nonverbal signs and signals, first advocated by Farberow and Shneidman in the 1950s. Overall, the data showed that the majority of participants believed that suicidal intent is communicated, further supporting this theory.

In addition, this study considered both the tripartite model of attitude and the theory of planned behaviour (Ajzen, 1985; 1991) as a way to understand decisions about helping behaviour, which may be useful in changing behaviour. The theory of planned behaviour contends that attitudes, subjective norms, and perceived behavioural control are important
components for intentions toward behaviour. These components can be seen in this study. Perceived behavioural control is related to knowledge of warning signs and intervention strategies, confidence, and self-efficacy. Social norms and attitudes can both be linked to a lack of taboo, with attitudes particularly important in both facilitating and inhibiting helping behaviour.

Although intending is not the same as actual behaviour, there can be some confidence that it translates to actual behaviour (Rossetto et al., 2016; Yap et al., 2011). In this study, more than half the participants intended to intervene in the rating scales and in the vignettes. However one problem with the theory of planned behaviour is that perceived behavioural control stopped some participants from intervening, but many intended to intervene regardless of confidence or perceived control. This suggests other variables are important, which has been found in other studies (Aldrich, 2015). As this was only very exploratory, future research could look at the theory of the planned behaviour under more stringent conditions.

An important finding of the study was the emotional and psychological processes that underscore and impact on attitudes and behaviours. Emotion was evident in responses, inhibiting or facilitating decisions around intervening. Fear of consequences and embarrassment were factors that inhibited people from asking outright, or intervening actively. Yet strong emotional impulses also led some participants to intervene despite such fears. Additionally, the emotions of empathy and sympathy led some people to want to help, and such emotions may mitigate taboo and stigmatising beliefs. Such findings support the tripartite theory of attitude (Ajzen, 1989) where emotion, cognition, and behaviour can all be considered necessary, and separate, components of attitude.
Practical Implications for Prevention

The results of this study show that there needs to be a greater awareness of warning signs. There is evidence that public awareness of warning signs can increase a person’s ability to recognise a person who is suicidal (Jorm & Kitchener, 2011). This sample could identify a range of warning signs but still had difficulty interpreting and responding adequately. Indirectness and ambiguity of communication, contextual factors, and other issues with its presentation were problematic. Ambiguity and being unsure led to no action for some participants for fear of getting it wrong. The need to be sure before responding shows that there is more concern with “false positives than false negatives” (Jorm & Kitchener, 2011, p.1) so that the threshold for taking concerns seriously is too high. Prevention messages need to promote the notion that any signs of suicide should be taken seriously (Jorm & Kitchener, 2011).

Participants in this study said it was important for people to know what to do and who to contact. These are important components for increasing confidence, and may be utilised in general awareness campaigns. Health awareness has been raised about sunscreen use for skin cancer prevention, stroke signs, and heart attack signs, with successs. Increased knowledge of warning signs and how to intervene may increase confidence, which may facilitate more effective interpretation and responses.

Most of the sample chose informal strategies, especially talking to the person. However, it was more often general terms of encouragement (keep your chin up, things will get better). It would increase participant confidence if they knew what was most appropriate and effective and least harmful. For instance, awareness campaigns or prevention programmes
should focus on the importance of listening to the person, and acknowledging what they are going through is difficult.

The findings also revealed that people did not know what formal supports were available. They were unsure about which supports were appropriate, how they could help, and how to approach them. This linked to their fears of getting it wrong, and consequences of personal embarrassment and potential negative reactions of the person. Contacting formal support was seen as quite extreme and there was therefore a need to be sure before this was a strategy they utilised.

**Implications for gatekeeper education and awareness campaigns.**

However, the results of this study highlighted the complexities of interpretation and response to suicidal signs and signals, and revealed barriers that can interfere. This has implications for public awareness campaigns and strategies, as well as gatekeeper training programmes for the general public. Normal public education models are based on see-do or see-tell-do models (Owens & Charles, 2017). That is, if you see X you should do Y, or encourage the person to do Z. While there is value in such models, they are based on the assumption that once a person knows the guidelines, they will rationally act in accordance with them. Yet the current study and the research of Owens et al. (2011) and Owen et al. (2012) point to psychological, emotional, and communication processes that hinder such straightforward reactions as recommended by such models.

These barriers include fears of embarrassment for self and for the suicidal person for broaching the topic, the personal embarrassment if they were wrong in their assessment, and the consequences of being wrong such as loss of friendship, negative reactions such as
anger from the person, and fears of making the situation worse. These barriers are so strong that the consequence of not asking outright or intervening when the person is actually suicidal seem to be minimised. These barriers get in the way of people implementing the behaviours they may be taught in gatekeeper programmes or awareness campaign strategies. All of these gatekeeper courses teach asking outright yet this sample were fearful of asking outright, due to personal embarrassment and worry that it would do more harm by offending the person. Asking outright has been problematic elsewhere and was identified as a key challenge by participants in Griesbach et al.’s (2008) review on ASIST.

So, gatekeeper programmes need to be cognisant of the psychological process of cognitive bias (e.g. confirmatory bias) where attention is focused on the communications and signs that support a particular narrative, such as minimal risk to participant, rather than looking at all possible meanings, because the listener wants everything to be okay. Psychological processes such as normalcy bias and confirmatory bias, both mentioned previously, can promote inaction by persuading a person there is nothing to worry about, appealing to their innate desire for this to be an accurate perception/belief despite their initial concerns. Such processes can impede people seeing signs that may actually be obvious, and responding accordingly.

Other processes relate to the ethical dilemma of conflict with individual autonomy and rights versus safety. If a person says they are okay yet you still have concerns, how do you proceed? One area of focus for gatekeeper programmes could be how you navigate the fear of crossing boundaries or breaking confidence to ensure that someone is safe. These are all important factors that have been revealed in this study which gatekeeper
programmes need to be aware of and overcome. Awareness campaigns could promote the consequences of not intervening when concerned (suicide), as participants focused less on these consequences than on the consequences of embarrassment or negative reactions (possibly due to cognitive biases- they do not want to acknowledge and think about the more serious consequence). While asking directly and intervening may feel uncomfortable, it may also save a life.

In addition, communication processes such as face-saving theory inhibits direct speech when a topic is uncomfortable, creating barriers to understanding. The data in this study showed how participants preferred to be indirect in their responses and when vignette statements and behaviour was ambiguous, participants still preferred not to clarify directly as it was considered embarrassing, awkward, and uncomfortable. Face-saving communication processes therefore led to problems in interpretation and responses. Consequently, how to overcome these problems should be a focus.

One suggestion that has been trialled in the UK is a simple educational leaflet designed for family and friends to recognise and respond to suicidal risk (Owens & Charles, 2017). It is structured around the say-do model but also addresses misconceptions, fears, and cognitive biases, as well as how to start a conversation, what do to next, and where to seek help, as a result of their findings. A similar strategy may be effective in New Zealand, as the findings from this study have similarities with Owens et al. (2011) and Owen et al. (2012) studies.

**Practical Recommendations**

The results have a practical utility for suicide prevention, which was an overarching goal of this research. It seems there are still misconceptions and prevailing myths that can affect
how people interpret and respond to suicidal warning signs. Some core strategies would be debunking these myths and misconceptions, promoting when to intervene, and how to intervene when a person suspects someone may be suicidal. Of particular importance is a consideration of how to overcome the psychological, communicative, and emotional processes that were found in this study, which can create barriers to effective intervention or intervening at all. Practical recommendations can aid in debunking myths and misconceptions, breaking down barriers, and facilitating more effective interpretation and responses. These include:

- Making people aware that asking outright can be effective if a person is feeling suicidal
- Overcoming the myth that people who talk about suicide will not do it
- Highlighting that alcohol and substance use do not make statements less serious and actually increase risk
- Provide opening statements to help people start the conversation
- More detailed awareness of what to do, and who to contact if you suspect someone is suicidal.
- When to call the police, take to A & E, call mental health crisis teams, and hotlines such as Lifeline or Tautoko Suicide Line
- Show how warning signs may present in reality.

**Limitations of the Present Study**

This study had 24 participants, which represented 2 and 4 separate groups for analysis (by gender and age group). Although this sample size is adequate for the development of a new qualitative methodology such as the vignettes that were used for this study, it is a small sample size for the quantitative elements. Therefore, it is difficult to make generalisations and confident statements about the statistical significance of the findings due to its low
power, and generalise the results. However, the mixed method design provided rich and valuable information and a deeper exploration of the findings, than would have been possible with just a quantitative methodology. The qualitative and quantitative findings were used to corroborate each other, thereby increasing confidence and overall validity of the findings. The results corresponded with other study findings (Owen et al, 2012; Owens at al, 2011) further enhancing the validity of its findings.

The sample was also a convenience sample (and purposive regarding age and gender) through the researchers own informal network, rather than a randomly selected sample. As such, people who volunteered for the study may differ from the general population in some way. They may have a vested interest in suicide. However, none of the participants worked in the field of mental health or suicidology, only one had ever been suicidal themselves, and experience level of suicide ranged from none to many, with more acquaintances and friends noted than family, so it may be that they do represent an Auckland community.

Finally, suicide and suicide behaviour is complex. The vignettes were developed to include a range of warning signs and suicide communication, yet there are many that are missing. There are a multitude of risk factors, warning signs, and suicide communication, so it is possible that the sample may have answered differently with different scenarios and warning signs. It would be impossible to include all possible scenarios, and too complex a task for participants to respond to a wider range of prompts. By using six vignettes, the study was able to provide a range of contexts, which can be considered a good starting point, and represent multiple views rather than one or two scenarios which are normally utilised in vignette studies. This represents more range than most vignette methodologies in the literature, especially in New Zealand.
Future Research Directions

It would be important to conduct more research using the same methodology, as this would increase the validity and reliability of the findings. The study had a fairly small sample size, which is appropriate due to the topic under study and the method used, and the development of its methodology, but the size decreases the power of its statistical findings. More studies could be conducted and compared which would increase validity and enable more confidence in its findings, especially in regard to group differences.

The study could also compare other age groups within the community to understand their knowledge and attitudes further which can be used for prevention strategies and for group comparisons. This study did not find statistically significant differences between the 20-30 and 40-50 age groups (although this may be related to the small sample size) but there may well be differences in other age groups. The current groups were chosen as they represent the highest and second highest age rates (confirmed and provisional) but the old adult population could also be a good group to focus on in future research.

The study could also research other specific groups in New Zealand to represent a wider New Zealand population. As New Zealand is bicultural, it would be important to explore a Māori sample to see if differences are found. Māori have a different history related to colonisation and identity and warning signs and intervention are likely to be presented and enacted differently in some ways. Although this study had Māori participants, or those who identified as Māori-Pākehā, these were too small to make any conclusions based on ethnicity.
REFERENCES


Renberg, E. S., & Jacobsson, L. (2003). Development of a questionnaire on attitudes towards suicide (ATTS) and its application in a swedish population. *Suicide and Life-Threatening Behavior, 33*(1), 52-64.


Appendices
Appendix A: Participant Information Sheet and Community Resource Sheet

How do lay people interpret and respond to suicide communication?

PARTICIPANT INFORMATION SHEET
24 February 2017

My name is Amber McAllister. I am currently completing my Master of Arts (Psychology) at Massey University, which entails planning and completing a research project. I have designed a study to find out what ‘lay people’ understand about suicide warning signs and risk factors, their attitudes to suicide, and to intervening with someone suicidal. It is hoped that the results of the study can contribute to suicide prevention strategies in New Zealand.

I am looking for six males aged 20-30, six males aged 40-50, six females aged 20-30, and six females aged 40-50 (in order to see if there are any differences in these age groups and genders) living in Auckland to take part in one 60-minute data collection interview. To be included you must not be currently or recently (the last month) suicidal, or have experienced the death of someone close to you as a result of suicide during the last six months. You also need to be proficient in English.

If you fit these criteria, I invite you to participate in this study. The interview will be audio recorded to allow me to be thorough in analysing information provided during the interview. Participation is voluntary. All participants will go in a draw to win a $50 voucher.

All of your personal details will be kept confidential which means they will not be included in the report or linked to the information that you supply.

Information collected from the data collection interview will be securely stored and used to write my Masters thesis and to write a report, which may be published in a psychological journal. Some of the participants’ words may be used to describe how and why they make decisions. However, participant names and any identifying features will not be attached to these quotations. Participants will be provided with a summary of the research findings.

Risks and Benefits
This research is about suicide, and therefore may be distressing to think about. Please be assured you can refuse to answer any questions or stop your participation at any time.
In addition, you will be provided with a list of contact information for resources in the community you can access if you feel distressed.

There are no direct personal benefits from participating in this study. However, your involvement will contribute to suicide prevention by enhancing knowledge of community awareness and attitudes to suicide.

**You are under no obligation to accept this invitation.** If you decide to participate, you will have the right to:

- Have a support person of your choice present to be with you during the interview. They will not take part in the interview themselves.
- Decline to answer any particular question.
- To withdraw from the study at any time until one week after the single data collection interview, without needing to provide any explanation for this decision.
- Ask any questions about the study at any time during participation.
- Provide information on the understanding that your name will not be used in the final report.
- Ask for the recorder to be turned off at any time during the interview.
- To be given access to a summary of the project findings when it is concluded.

The interview process will be relaxed and informal. First I will introduce myself and spend a short time talking about this research study. Then I will provide a demographic form for you to fill out. After this I will ask you to look at some vignettes (short descriptions of situations) and will ask you some questions about your thoughts on these. After this we will have some time to talk about your answers in more detail. Finally, I will ask you to complete a short questionnaire on your attitudes to suicide.

As much as possible the interview will be scheduled for a time and place, which is most convenient for you. Actual travel costs can be reimbursed if necessary.

If you would like to take part in this study, please contact me (text or email) via the details at the bottom of this information sheet. I will then make contact with you to arrange a time for us to meet, answer any questions you may have, and carry out the data collection interview.

**Project Contacts:**

Please feel free to contact myself or my supervisor if you have any questions about this study.

**Researcher:** Amber McAllister

**Supervisor:** John Fitzgerald PhD

021324417 (04) 801 5799 extn: 63620

a.mcallister@vodafone.co.nz j.m.fitzgerald1@massey.ac.nz
This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern A, Application 17/15. If you have any concerns about the conduct of this research, please contact Dr Lesley Batten, Chair, Massey University Human Ethics Committee: Southern A, telephone 06 356 9099 x 85094, email humanethicsoutha@massey.ac.nz.

RESOURCE SHEET

We understand that this is a sensitive topic, so we have compiled some services that you can access for support if you feel you need it or if it highlights for you that someone you know may need some support.

In an emergency, call 111 or proceed directly to the emergency department of the hospital

Crisis Assessment & Treatment Team (CATT)

Telephone: 0800 800 717 available 24/7

The Auckland District Health Board (DHB) Community Mental Health Service provides emergency assessment and short-term treatment for people experiencing a serious mental health crisis and for whom there are urgent safety issues

Lifeline

Telephone: 0800 543 354 or (09) 522 2999 available 24/7

www.lifeline.org.nz

Providing telephone counselling and support

TAUTOKO Suicide Crisis Line

Telephone: 0508 828 865 available 24/7

www.lifeline.org.nz

Provides support, information and resources to people at risk of suicide, family/whanau and friends affected by suicide and people supporting someone with suicidal thoughts and/or behaviours.
Depression Line

Telephone: 0800 111 757 or text 4202  available 24/7

www.depression.org.nz

Samaritans

Telephone: 0800 726 666  Available 24/7

Listening and support telephone service for people who may be feeling lonely, depressed or suicidal.

Healthline

Telephone: 0800 611 116  Available 24/7

www.moh.govt.nz/healthline Advice from trained registered nurses

SPINZ (Suicide Prevention Information NZ)

Telephone: 09 300 7035
www.spinz.org.nz

Provides resources and information for suicide prevention

Anxiety line

Telephone: 0800 269 4389

Provides education and support around anxiety
For young people:

Youthline
Telephone: 0800 376 633 or free txt 234

www.youthline.co.nz

Kidsline

Telephone: 0800 543 754 available 24/7 but between 4-9pm the call will be answered by a Kidsline Buddy.

www.kidsline.org.nz

For young people up to age 18

What’s Up

Telephone: 0800 942 8787 Monday to Friday 1-10pm/Sat to Sun 3-10pm and free online chat 5-10pm every day

www.whatsup.co.nz

Counselling service for kids and teens.

The Lowdown

Email team@thelowdown.co.nz or free text 5626

www.thelowdown.co.nz
Appendix B: Participant Consent Form

How do lay people interpret and respond to suicide communication?

CONSENT FORM

I have read the Information Sheet and have had the details of the study explained to me. All of my questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I understand that my participation is voluntary and that I can withdraw my participation at any time and my data will not be included.

I agree to participate in this study under the conditions set out in the Information Sheet.

I wish to receive a summary of the research when it is completed

YES
NO

If ‘Yes’ what email address do you want the summary sent to: ..................................................

Signature................................................................................................Date..................

Full Name (Printed) .................................................................................................
Appendix C: Demographic Questions and General Suicide Rating Statements

**Demographic**

1. What is your gender?  **(Please circle)**
   - Female
   - Male

2. What is your age?

3. What is your ethnicity?

4. What is your highest education level?

5. What is your occupation?

6. Have you personally had any experience of suicide?  **(Please circle)**
   - Yes
   - No

7. If Yes- in what capacity?  **(please circle all that apply)**
   - Family member
   - Friend
   - Acquaintance
   - Yourself

8. If Yes- in what capacity?  **(please circle all that apply)**
   - Completed suicide
   - An attempt that required medical admission
   - A non-medical admission attempt

**Below are some general statements related to suicide. Please choose the option that is best for you.**

1= Strongly Agree, 2= Agree, 3= Undecided, 4= Disagree, 5= Strongly Disagree

1. I can understand why some people commit suicide.

1 2 3 4 5
2. I am very knowledgeable about risk factors.

   1  2  3  4  5

3. I am very knowledgeable about warning signs.

   1  2  3  4  5

4. I would intervene if I thought someone was suicidal.

   1  2  3  4  5

5. I would feel confident to intervene if I thought someone was suicidal.

   1  2  3  4  5

6. If I intervene, there is a chance I could make the situation worse.

   1  2  3  4  5

**Below are some true or false statements. Please indicate whether these statements are true or false by circling the option that you agree with:**

7. Total suicide rates in New Zealand have decreased since 2007.

   True               False

8. More females than males commit suicide.

   True               False

9. The 15-24 year age group currently has the highest rates of suicide in New Zealand.

   True               False
Appendix D: Attitudes Towards Suicide Scale (ATTS)

Below are a number of statements relating to suicide. Read each statement carefully and indicate the extent to which you agree or disagree with each statement by circling the option that best applies to you. Please be as honest as possible. There are no right or wrong answers.

1 = Strongly Agree  2 = Agree  3 = Neutral  4 = Disagree  5 = Strongly Disagree

1. It is always possible to help a person with suicidal thoughts.

```plaintext
1 2 3 4 5
```

2. Suicide can never be justified.

```plaintext
1 2 3 4 5
```

3. Taking one's own life is among one of the worst things to do to one's relatives.

```plaintext
1 2 3 4 5
```

4. Most suicide attempts are impulsive actions (by nature).

```plaintext
1 2 3 4 5
```

5. Suicide is an acceptable means to terminate an incurable disease.

```plaintext
1 2 3 4 5
```

6. Once a person has made up his/her mind about taking his/her own life no one can stop him/her.

```plaintext
1 2 3 4 5
```

7. Many suicide attempts are made because of revenge or to punish someone else.

```plaintext
1 2 3 4 5
```
8. People who take their own lives are usually mentally ill.
   1 2 3 4 5

9. It is a human duty to try to stop someone from dying by suicide.
   1 2 3 4 5

10. When a person dies by suicide it is something that he/she has considered for a long time.
    1 2 3 4 5

11. There is a risk of evoking suicidal thoughts in a person’s mind if you ask about it.
    1 2 3 4 5

12. People who make suicidal threats seldom complete suicide.
    1 2 3 4 5

13. Suicide is a subject that one should not talk about.
    1 2 3 4 5

14. Loneliness could for me be a reason to take my life.
    1 2 3 4 5

15. Almost everyone has at one time or another thought about suicide.
    1 2 3 4 5

16. There may be situations where the only reasonable resolution is suicide.
    1 2 3 4 5

17. I could say that I would take my life without actually meaning it.
    1 2 3 4 5

18. Suicide can sometimes be a relief for those involved.
    1 2 3 4 5
19. Suicides among young people are particularly puzzling since they have everything to live for.

   1  2  3  4  5

20. I would consider the possibility of taking my life if I were to suffer from a severe, incurable, disease.

   1  2  3  4  5

21. A person once they have suicidal thoughts will never let them go.

   1  2  3  4  5

22. Suicide happens without warning.

   1  2  3  4  5

23. Most people avoid talking about suicide.

   1  2  3  4  5

24. If someone wants to commit suicide it is their business and we should not interfere.

   1  2  3  4  5

25. It is mainly loneliness that drives people to suicide.

   1  2  3  4  5

26. A suicide attempt is essentially a cry for help.

   1  2  3  4  5

27. On the whole, I do not understand how people can take their lives.

   1  2  3  4  5

28. Usually relatives have no idea about what is going on when a person is thinking of suicide.

   1  2  3  4  5
29. A person suffering from a severe, incurable, disease, expressing wishes to die should get that help to do so.

1 2 3 4 5

30. I am prepared to help a person in a suicidal crisis by making contact.

1 2 3 4 5

31. Anybody can die by suicide.

1 2 3 4 5

32. I can understand that people suffering from a severe, incurable, disease, die by suicide.

1 2 3 4 5

33. People who talk about suicide do not die by suicide.

1 2 3 4 5

34. People do have the right to take their own lives.

1 2 3 4 5

35. Most suicide attempts are caused by conflicts with a close person.

1 2 3 4 5

36. I would like to get help to take my own life if I were to suffer from a severe, incurable, disease.

1 2 3 4 5

37. Suicide can be prevented.

1 2 3 4 5
Appendix E: Vignettes and Interview Guide

Interview guide

Here is a copy of a vignette for you. I will read this aloud to you and I would like you to stop me when you think you identify a risk factor or warning sign? Explain why?

1. Can you identify any other risk factors or warning signs? Explain why
2. What (if any) is the main part that sets alarm bells for you?
3. How would you respond to this person?
4. If you would intervene, how confident would you feel? / If you would not intervene, what would stop you?
5. Would you have some sympathy, empathy, or understanding for this person's decision to commit suicide?

You picked up on ......as a risk factor/warning sign. Can you tell me more about why that stood out for you?
Can you tell me more about the other risk factors/warning signs you chose?
You said you would/would not intervene? Can you tell me more about your reasons for responding this way?
If you chose to intervene: can you tell me more about what you would do and your reasons for this?

Vignettes

Mary
Your close friend Mary (age 43) has been feeling depressed for a number of months and you have barely seen her lately because she has been so withdrawn. When you have spoken to her, she always sounds very down and ends up crying. Out of the blue, she calls you up for a chat. She sounds really calm today and even happy. She says “you’ve been a really good friend and I just wanted to say thanks for everything.” She mentions that she wants you to have her favourite necklace, the one she knows
you’ve always loved. You try to protest but she really wants you to have it. You suggest catching up on the weekend but she asks you if you can make tomorrow instead. The next day you visit and she gives you her necklace. She really seems different and happy. You comment on this. She smiles at you, and tells you she’s made a choice to be happier. When you say goodbye, she gives you the biggest hug. You suggest catching up again next week. She agrees saying, “sure we’ll figure something out”. When you are about to get in your car to leave, she gives you another hug and says “you take care of yourself okay.”

Jason

You are out having some after work drinks for the first time with your new colleague Jason (age 24). Jason has settled in very quickly in his new job and gets on well with the people at work. He seems to have formed a quick friendship with you, and has started to talk about events in his personal life. Early in the evening Jason tells you that his partner has been having an affair and is leaving him. He seems somewhat resigned to this, defeated and sad, but he smiles and quickly moves onto a new topic of conversation. Later on in the night when he is quite drunk, he casually mentions that he is going to kill himself but it doesn’t seem serious as it’s said in a light-hearted manner. He actually seems like he is having a great night and seems on great form talking about lots of other things, although he does talk about his partner a lot. As the night progresses you notice Jason sitting quietly as if avoiding your few remaining work colleagues. At the end of the night, Jason says to you “I’ll probably be dead next time you see me” but this is also said in a jokey light-hearted way. He is pretty drunk when you both leave the bar. As you are both waiting for taxi’s to take you home Jason tries to call his ex partner but it goes straight to voice mail. He tries another
couple of times but it continues to go to voice mail. He starts getting pretty frustrated. "I'll show her", he says.

Jane

You are out having some after work drinks for the first time with your new colleague Jane (age 24). Jane has settled in very quickly in her new job and gets on well with the people at work. She seems to have formed a quick friendship with you, and has started to talk about events in her personal life. Early in the evening Jane tells you that her partner has been having an affair and is leaving her. She seems somewhat resigned to this, defeated and sad, but she smiles and quickly moves onto a new topic of conversation. Later on in the night when she is quite drunk, she casually mentions that she is going to kill herself but it doesn't seem serious as it's said in a light-hearted manner. She actually seems like she is having a great night and seems on great form talking about lots of other things, although she does talk about her partner a lot. As the night progresses you notice Jane sitting quietly as if avoiding your few remaining work colleagues. At the end of the night, Jane says to you “I'll probably be dead next time you see me” but this is also said in a jokey light-hearted way. She is pretty drunk when you both leave the bar. As you are both waiting for taxi’s to take you home Jane tries to call her ex partner but it goes straight to voice mail. She tries another couple of times but it continues to go to voice mail. She starts getting pretty upset. “I’ll show him,” she says.

Mother

You start talking to another mother (age approx. 24) while you are waiting to pick up your child. You don't know her outside of school pick up but you sometimes make
small talk. Recently she has been looking tired and distracted, and today she looks particularly stressed. You notice that her eyes appear puffy, as if she has been crying. Her toddler has thrown himself on the ground having a tantrum; he is shouting something about being hungry. She manages to pick him up and hold him even though he is wriggling, screaming, and punching at her. She looks really tired and frazzled and on the verge of crying. Her clothes look creased and she looks like she hasn’t brushed her hair. She admits to you that she is really struggling. She feels like a failure because she is struggling so much as a parent. She tells you that it’s so hard and says that she can’t take much more. She has no down time from the demands of her children. She admits to you that she is scared that she is damaging her children because she is so inadequate, and she sometimes thinks her children would be better off if she was not around any more. You tell her that you’re sure she’s doing a great job but she doesn’t look like she believes it, as she hugs her toddler tight to her. You ask if her partner or family could help more but she tells you she has no partner, he left them a year ago, and she is raising the kids by herself. Her family live in a different city but they don’t have much of a relationship anyway, and she doesn’t really have many friends because she doesn’t have the time or money to go out. The bell rings and all the children start coming out. As her child comes toward her, she turns to you and thanks you for at least listening to her, and walks away.

**Pete**

You bump into an old acquaintance, Pete (aged 52) who you haven’t seen in a number of years. Pete has always been real ‘salt of the earth’, a typical kiwi bloke. He’s had some bouts of depression in the past but he seemed to have got over that and you did not think this had been a problem lately. You engage in some small talk for a bit, and
then Pete tells you that he recently lost his job; he was laid off after 15 years service to one company, and is struggling to find work. He admits to you he’s a bit stressed. Over the last two weeks, he has been to three interviews and didn’t get any of them. He has just come out of his fourth job interview today and it went badly. He feels like such a failure not being able to provide for his family; that he’s letting them down. His family is not aware of this pressure he is under. He hasn’t told them that he is struggling to find work and is stressed- they think he is having some well earned time out before he looks for his next job- because he doesn’t want to worry them or look weak in front of them. He can tell he didn’t get the job today and doesn’t know what to do- he was relying on it. He really thought that this was going to be the job and now he feels really let down- let down by himself, by his old employers, and let down by the system. He’s been a hard-worker all his life, paid his taxes, and he just can’t believe he is in this situation now, at his age. And now he can’t bring himself to go home and face his wife and children; for them to see that he has failed them. You tell him that he is not a failure and that his family will understand. “Yeah you’re probably right,” he says, seemingly embarrassed of what he has just told you. “Anyway better go,” he says. He walks away, and not realizing you are watching him, enters the closest pub. You remember something about his uncle committing suicide a number of years ago after his wife left him. Pete had mentioned it to you once in the past but had never talked about it since.

**Stranger**

You are at a café and there are no seats left. You see a man sitting alone at a table and ask if you can sit there with him. He says sure, and as he says it you see something in his expression and body language that catches your attention. He just seems very ‘off’.
You ask him if he's okay. He looks at you and then answers that he is actually not okay. He tells you that he gets depression and anxiety and it's been quite bad lately. He tells you that he actually sees a counsellor who helps him a lot but she is away for two weeks on holiday so he can't talk to her but his feelings are starting to become overwhelming, and he doesn’t know what to do. He looks at you and tells you he is having feelings of wanting to die.