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Suicide risk assessment fears, attitudes and behaviours of lifeline crisis supporters

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Abstract

Lifeline Australia operates crisis support services through Lifeline Crisis Supporters. An integral part of their role is to conduct online suicide risk assessments with help-seekers. However, there is limited literature regarding suicide risk assessment practices for this population. This study aimed to examine how suicide prevention training, vicarious trauma and fears impacted suicide risk assessment behaviours of Lifeline Crisis Supporters. A cross-sectional survey design was used to recruit a volunteer convenience sample of 125 Lifeline Australia Crisis Supporters (75.2% females; $M_{age} = 54.9$) in 2018 to participate in an online survey. Findings revealed that those with more suicide-specific training had less risk assessment-related fears, and that fears were not related to attitudes towards suicide prevention. There was no significant relationship between vicarious trauma and amount of training or years of experience in the role. Further, participants with higher levels of vicarious trauma demonstrated significantly more negative attitudes towards suicide prevention. Overall, training appears to be a significant factor in suicide risk assessment practice behaviours of Lifeline Crisis Supporters, highlighting a need for ongoing training and support for them. This research also suggests that whilst fears exist, they do not significantly impair Lifeline Crisis Supporters' ability to undertake suicide risk assessment.

KEYWORDS
crisis intervention, lifeline, suicide, suicide prevention, suicide risk assessment, vicarious trauma

1 | INTRODUCTION

Approximately nine families lose a loved one to suicide each day in Australia (Australian Institute of Health and Welfare, 2021), and hundreds more are impacted (Cerel et al., 2019). At the forefront of suicide prevention efforts is Lifeline Australia, which operates

crisis support services including the national hotline, text and chat services. They receive nearly one million contacts from individuals experiencing crisis each year (Lifeline Australia, 2020). Lifeline Australia aims to provide crisis support and referral services to help-seekers to relieve immediate distress and increase coping skills (Middleton et al., 2017; Watson et al., 2006). Although Lifeline Crisis

Supporters (LCS) provide these critical frontline services to individuals in crisis, especially those experiencing suicidality, minimal research has been conducted to understand these workers' real-world experiences. The role of a LCS is akin to crisis counsellors in other similar organisations (Tyson et al., 2016).

1.1 | Suicide risk assessment at lifeline

Contact with a person through telephone crisis lines commonly involves high acuity presentations. LCS are required to make an assessment about the current suicidal state of the person within a one-off crisis contact, to ensure their optimal safety. Thus, an integral part of a LCS' role is to conduct suicide risk assessments with all help-seekers. The Lifeline Operations Manual specifies, 'Ensure you ask a direct and unambiguous question about suicide such as "Are you thinking about suicide?" You should be asking about suicide in every crisis contact. Remember to do so respectfully and in context, to minimize the possibility of damaging your connection with the caller' (Lifeline Australia, 2017, pp. 153).

Whilst it is paramount to ask directly about suicide, research has shown that many crisis line workers do not ask about suicide (Mishara et al., 2007). This reticence to ask about suicide exists across mental health professionals. Roush et al. (2018) found that over 30% of mental health professionals reported not to have asked about suicidal intent of their patients in the first visit. For crisis line workers, a common fear is that asking about suicide will create the idea of suicide in the caller's mind (Mathias et al., 2012), despite this not being the case (Deeley & Love, 2010; Smith et al., 2010).

Despite the centrality of suicide risk assessment to crisis counsellor tasks, there is little understanding of the signs crisis counsellors look for to initiate a suicide risk assessment. Hunt et al. (2018) explored patterns of suicide warning signs that Australian crisis counsellors used to identify whether a caller was at risk of suicide and found that mood, anger and hopelessness were most often indicative of suicide risk (Hunt et al., 2018). Similarly, Picard and Rosenfeld (2020) examined risk factors of suicidal ideation that influenced crisis clinicians' perceptions of suicidal risk and treatment decisions, finding that passive suicidal ideation was found to be the most significant risk factor that increased the clinician's perception of risk and level of care recommendations. Additionally, an expressed plan and desire for suicide significantly influenced the clinician's risk assessment and treatment recommendations (Picard & Rosenfeld, 2020). These findings highlight the importance of asking directly about both suicide and desire to die to have a comprehensive picture of the individual's suicide risk.

Asking about suicide is central to the LCS role and is perhaps the most important question to establish a safety response for the caller. Nevertheless, it is unclear whether LCS implement these procedures per the operational guidelines or what risk assessment practice behaviours are utilised. Specifically, there is a lack of attention to understanding how LCS implement suicide risk assessment practices

What is known about this topic

- Limited knowledge currently exists on suicide risk assessment practices of Lifeline Crisis Supporters in Australia. Specifically, little is known about the associations between suicide prevention training, the experience of vicarious trauma, attitudes and fears related to suicide risk assessment and Lifeline Crisis Supporters' practice capabilities.
- Lifeline provides one-off crisis support and referral services to the community through telephone, text and online chat, which is free and confidential.
- Training for Lifeline Crisis Supporters at the time of this study did not specifically target vicarious trauma or suicide risk assessment-related fears of Crisis Supporters. Therefore, the association between training, vicarious trauma experiences and suicide risk assessment practice was unknown.

What this paper adds

- This study provides guidance on specific educational and training needs for Lifeline Crisis Supporters in Australia, which extends existing suicide prevention-based training.
- This study showed that there were no differences in Lifeline Crisis Supporters' vicarious trauma levels between those who did and did not report suicide risk assessment-related fears.
- Further, length of experience in suicide prevention was not associated with the experience of vicarious trauma, although we found that younger middle-aged crisis supporters experienced more vicarious trauma than the higher middle-aged crisis supporters. We also found that negative attitudes towards suicide prevention were associated with the experience of more vicarious trauma, whilst negative attitudes were not related to number of suicide risk assessment-related fears.
- Having more training—whether in the form of formal workshops and education or informal mentoring and supervision, was associated with less suicide assessment-related fears. Given the impact of fears on perceived capability in undertaking suicide risk assessment, Lifeline Australia should continue offering both formal and informal training.
- Further evidence was found for the need for supportive supervision, mentoring and training for Lifeline Crisis Supporters, targeting fears around suicide risk assessment, as well as attitudes towards suicide particularly for those experiencing higher levels of vicarious trauma.

and what factors influence decision-making in conducting suicide risk assessments with help-seekers.

1.2 | Suicide risk assessment attitudes and fears

Previous research has explored personal and professional factors that influence health and mental health professional's decision-making and competency in suicide risk assessment (Hooper et al., 2012; Neimeyer et al., 2001; Rothes & Henriques, 2018; Roush et al., 2018). Whilst this research does not include telephone crisis counsellors, there is some applicability to this population. Findings from this research indicate that mental health professionals' attitudes and openness towards discussing suicide with their clients are associated with a more effective response (Neimeyer et al., 2001). Consequently, negative attitudes towards suicidality have been shown to decrease a clinician's competency in crisis interventions (Kodaka et al., 2013). These findings are critical in context as people who self-harm are frequently viewed in a negative light by health professionals (Saunders et al., 2012), which may have a significant impact on the competency of care they provide. Whilst fear of suicide-related outcomes has not been shown to significantly impact a clinician's use of evidence-based practices for managing suicidality with clients (Airey & Iqbal, 2022; Regehr et al., 2016; Roush et al., 2018), other fears associated with malpractice litigation, as well as fear of lack of knowledge around what to say and do, can be a barrier to effective responses to suicidal clients (Kene et al., 2019; McAdams & Keener, 2008).

1.3 | Suicide risk assessment and vicarious trauma

In addition to these practice behaviours, related attitudes and fears of suicide risk assessment, there is evidence to suggest that the crisis counsellor may be impacted by vicarious trauma (VT) experienced from exposure to suicide-related narratives of help-seekers (Dunkley & Whelan, 2006; Hawgood et al., 2015; Stamm, 2012; Willems et al., 2020). Research with mental health professionals has evidenced the psychological impacts of exposure to, and engagement with, client self-disclosures of experienced trauma and distress (Baum, 2015; Finklestein et al., 2015; Lee, 2017). Vicarious trauma resulting from therapeutic relationships is defined as 'profound psychological effects…that can be disruptive and painful for the helper and can persist for months or years after the work with traumatized persons' (McCann & Pearlman, 1990, p. 133). Worker experiences of burnout, compassion fatigue and secondary traumatic stress symptoms have all been reported as impacts derived from working in frontline and therapeutic contexts of traumatised client presentations (Baum, 2015; Van Hook & Rothenberg, 2009; Waegemakers Schiff & Lane, 2019). Additionally, past experiences with suicidality can have significant impacts on skills in responding

to clients' suicidality in the future (Hawgood & De Leo, 2015; Hendin et al., 2000; Neimeyer et al., 2001). Like mental health clinicians, crisis counsellors may also be frequently vulnerable to the risk of VT as they engage with some stories of their clients who are experiencing or have experienced suicidality (Hawgood et al., 2015).

Unfortunately, research centred on suicide prevention crisis counsellors' experience of VT is scarce (Kitchingman et al., 2018; Stamm, 2012). Studies to date have focused on VT in a broader category of crisis counsellors, including face-to-face crisis counsellors (Dworkin et al., 2016; Howlett & Collins, 2014; O'Sullivan & Whelan, 2011; Willems et al., 2020). However, two studies have examined the potential impact of VT on telephone crisis counsellors. Stamm (2012) discusses the potential for vicarious traumatisation of suicide prevention crisis counsellors and provided recommendations for supporting these workers. They highlight the importance of organisations understanding the risks for their crisis counsellors and ensuring they are educated on compassion satisfaction and fatigue. Additionally, Kitchingman et al. (2018) conducted a systematic review regarding telephone crisis counsellors' symptoms of psychological distress and impairment, which revealed the paucity of research available on these topics, leaving the researchers unable to draw conclusions on the data. The potential for VT in suicide prevention crisis counsellors warrants specific attention due to the level of engagement they have with those in suicidal distress and the often-graphic detail that may be obtained around the clients' stories.

1.4 | Aims and hypotheses

More research is needed to determine suicide risk assessment practices in LCS and how such practices relate to amount of training received, attitudes and fears associated with conducting suicide risk assessment. The aim of the current study is to fill this gap with an examination of suicide risk assessment behaviours in LCS to identify training, education and support needs. A specific focus of this study is on the relationship between suicide risk assessment practice and individual factors including types of training in suicide prevention, attitudes towards suicide prevention and experience of VT related to engaging with suicidal clients. The specific aims of the study were to: (1) examine the effects of VT, fears and attitudes towards suicide prevention on suicide risk assessment behaviours; and (2) examine the effect of prior suicide prevention training on suicide risk assessment behaviours, VT and attitudes towards suicide prevention.

We hypothesised that: (1) LCS with more training in suicide risk assessment will have fewer fears associated with suicide risk assessment practice, lower levels of VT and more positive attitudes towards suicide prevention; (2) LCS with higher levels of VT will have more fears associated with suicide risk assessment; (3) LCS with more negative attitudes towards suicide prevention will have more fears associated with suicide risk assessment.

2 | MATERIALS AND METHOD

2.1 | Research design and procedure

This study used a convenience sample and employed a cross-sectional survey design. The online survey was hosted on Google Forms and distributed by Lifeline Australia via an internal email with a link to the online survey, which was open for responses from June to August 2018. Once a participant entered the survey, further information was provided about consent, risks of the survey, use and storage of data and support services should they be required. Participants indicated their consent to be a part of the study by confirming review of this information and subsequently clicking on the 'enter survey' link provided. Participants were not reimbursed for their participation. As this survey asked about material that could potentially lead to distress or impactful emotional reactions, support services were listed at two points throughout the survey. All responses were recorded anonymously, and only aggregated data were shared with Lifeline Australia following completion of the study. The Griffith University Human Research Ethics Committee approved this research (GU Ethics Ref no: 2018/417).

2.2 | Participants

A total of 125 Lifeline Australia Crisis Supporters, including volunteers and paid employees, chose to respond to the online survey. Participants were predominately women (75.2%), and most participants had either an undergraduate degree (37.6%) or an undergraduate degree in psychology (17.6%), whilst 3.2% had a postgraduate degree. One quarter of the sample did not report their highest level of education (25.6%). An almost equal proportion of participants were either casual (41.6%) or part-time workers (39.2%), whilst 16.8% reported being full-time employees. See Table 1 for information regarding participants' demographics (age, gender, education, work status and years in role).

2.3 | Training course

All LCS undertake a comprehensive training course before being able to take phone calls for Lifeline Australia. At the time of this survey, the course included 24 h of eLearning and 32 h of face-to-face learning sessions. An additional 12 h of face-to-face training was also completed through the LivingWorks Applied Suicide Intervention Skills Training course, which is a suicide prevention and intervention program (Gould et al., 2013). Subsequent practice sessions allow the participants to practice asking about suicide and assessing suicide risk. All LCS must successfully pass two suicide-related role plays prior to being able to take a live interaction.

TABLE 1 Characteristics of lifeline Australia crisis supporters ($N = 125$)

Demographics		N	%
Gender	Male	30	24
	Female	94	75.2
	Unreported	1	0.8
Age	18–24 years	4	3.2
	25–34 years	12	9.6
	35–44 years	12	9.6
	45–54 years	20	16
	55–64 years	38	30.4
	65–74 years	24	19.2
	75–84 years	9	7.2
	Unreported	6	4.8
Work status	Casual	52	41.6
	Part time	49	39.2
	Full time	21	16.8
	Unreported	3	2.4
Education	Undergraduate degree	22	17.6
	Undergraduate degree in health/human services	47	37.6
	Master's degree	20	16
	PhD degree	4	3.2
	Unreported	32	25.6
Years in role	0–5 years	75	60
	6–10 years	23	18.4
	11–15 years	8	6.4
	16–20 years	7	5.6
	21+ years	12	9.6

2.4 | Measures

Suicide risk assessment training information was collected to measure amount and recency of suicide risk assessment training. This included both formal training (e.g. structured workshops, seminars or courses in suicide prevention) and informal training (e.g. supervision or mentoring received specifically related to suicide risk assessment or specific cases of clients with suicidality). This was captured using a five-point Likert scale ranging in amount of training from one (*none at all*) to five (*a lot*) and recency of training from one (*less than 12 months ago*) to five (*more than 10 years ago*).

The clinical practice section of the survey explored LCS' past and present risk assessment experiences and measured practice domains of inquiry. Using a Likert scale, participants were asked to select the type of suicide risk paradigm they used from one (*always medical approach*) to five (*always person-centred approach*). The medical approach was defined as an approach focused on a risk factor checklist, whilst the person-centred approach was defined as allowing the client to tell their story around suicidality. Categorical-based

responses were sought for the items regarding whether the participant had ever conducted a suicide risk assessment, presence of fears, collaboration with others (professional or non-professional) as part of an assessment, reasons for not conducting a suicide risk assessment, and whether the participant had lost a client to suicide or was exposed to a client suicide attempt in their work.

Risk assessment practice behaviours were assessed using two open-ended questions: (1) 'What are the indicators or client warning signs observed that trigger your engagement in administration of a risk assessment process?'; and (2) 'What are the top key questions you might commonly ask a client to screen for suicide risk?'. Two authors independently coded the frequency of responses according to predetermined categories for each of these risk assessment items. Categories were defined based on recommendations in the literature for warning signs, and standard suicide inquiry domains (Shea, 2011). Specifically, open-ended responses to the first question about indicators for conducting a risk assessment were categorised as direct verbalised suicide ideation; indirect (passive verbalisation) ideation; behavioural changes; mental health signs; life stressors/ crises; drug and alcohol use; emotional/distress observed in voice; other; or always conduct a risk assessment (independent of presenting warning signs). For responses to the second item regarding questions asked, they were categorised as current suicidal ideation/ thoughts; past suicidal thoughts; plans; past attempt behaviour; self-harm thoughts/actions; psychological pain; mental health; support and coping; or no mention of suicidality.

To analyse *fears about conducting suicide risk assessments*, items were developed based on literature around clinician fears and anxieties concerning suicide risk assessments or working with clients who are suicidal (Airey & Iqbal, 2022; Regehr et al., 2016). Specific items around fear of pushing a client towards suicide, or a client attempting or dying by suicide were based on Roush et al.'s (2018) items. Participants were asked 'In the past, what have been some of your reasons for not conducting a suicide risk assessment?' and were provided with a categorical list of 10 common fears reported in the literature (Kene et al., 2019; Roush et al., 2018), such as 'Fear that I might push the client towards suicide' and, 'Fear of a positive answer requiring more clinical time'. Responses were rated as present or absent, giving a total score between 1 and 10. This scale showed good internal consistency (Cronbach's α = 0.79) for the sample.

The *Attitudes Towards Suicide Prevention Scale (ASPS)*, used to measure LCS' attitudes, is a self-report instrument measuring attitudes towards suicide and examines views on the effectiveness and need for suicide prevention. The scale has good internal reliability (α = 0.77; Herron et al., 2001) and consists of 14 Likert scale items, with a range of responses from one (*strongly disagree/none*) to five (*strongly agree/all*). Responses are summed, resulting in a total score ranging from 14 to 70, with higher scores indicating more negative attitudes.

The *Vicarious Trauma Scale (VTS)*, used to measure VT in LCS, was originally developed to measure the distress that legal professionals experienced in working with traumatised clients. Internal reliability of the scale is good for this population (α = 0.77; Aparicio

et al., 2013), but it has also been used with licensed social workers as a measure of VT yielding higher internal consistency (α = 0.88; Vrklevski & Franklin, 2008). The VTS is an eight-item self-report scale with a seven-point Likert response ranging from *strongly disagree* to *strongly agree*. The total score of these items is calculated to indicate the level of VT. A score of eight to 28 indicates low VT, 29 to 42 indicates moderate VT and 43 to 56 indicates high VT (Aparicio et al., 2013).

2.5 | Data analyses

Frequency distributions and descriptive statistics were used to assess demographic variables. Associations between ASPS, VTS, amount of formal and informal training received, and suicide risk assessment fears were explored using independent samples *t*-test and analysis of variance (ANOVA). Exploratory relationships between demographic variables (age, years in role), fears and VTS were explored using independent samples *t*-tests. All analyses were completed using SPSS software version 25, with *a* set to 0.05. Missing data were handled using listwise deletion.

Content analysis was used to code responses to the two open-ended questions about suicide risk assessment practice behaviours (listed above in 'Measures' section). Two authors (J.H./J.K.) were involved in the review of all open-ended responses and categorising these according to best alignment with the categories. Categories were defined based on recommendations in the literature for warning signs and standard suicide inquiry domains (Shea, 2011) (see 'Measures' section above). Any differences between coders were discussed and finalised with mutual agreement. No unresolved data coding differences occurred.

3 | RESULTS

3.1 | Suicide prevention training

Table 2 presents the specific responses around practice and experiences of LCS. Nearly all participants (96.8%) reported that Lifeline Australia has in place organisational policies or procedures for responding to suicidal persons that guide their practice, whilst 90.4% reported having undertaken a formal suicide risk assessment in their LCS role. Over half of participants (57.6%) reported having a specific suicide risk assessment tool that they used to undertake assessments with callers presenting with crisis/suicidality, whilst a smaller proportion reported a specific written protocol guided their assessment behaviours (29.6%). Responses to the category of 'other' (8.0%) included gaining assistance via supervisors, use of a safety plan or use of a checklist approach to risk assessment.

The majority of participants reported receiving formal training (e.g. workshops) (96.0%), and all participants reported having received informal training (e.g. supervision/mentoring). In examining the extent of training, the majority of participants had

TABLE 2 Clinical experiences of lifeline Australia crisis supporters (N = 125)

Clinical experiences	N	%
Conducted a formal suicide risk assessment	113	90.4
Organisational policy or protocol in place	121	96.8
Specific tool in place for workers to use	72	57.6
Written protocol to follow	37	29.6
Workers exercise discretion about what they use for assessment	3	2.4
Other	10	8
Unreported	3	2.4
Lost client to suicide		
None	9	7.2
Lost one client to suicide	6	4.8
Lost more than one client to suicide	1	0.8
Prefer not to answer	9	7.2
Unreported	100	80
Client suicide attempt		
None	0	0
One client suicide attempt	2	1.6
More than one client suicide attempt	39	31.2
Prefer not to answer	6	4.8
Unreported	78	62.4

TABLE 3 Indicators for suicide risk assessment

Indicator	N	%
Indirect verbatim ideations	35	16.7
Direct ideation	44	21.0
Emotional/distress in voice	29	13.8
Mental health signs	26	12.4
Always conduct assessment	26	12.4
Life stressors/crises	18	8.6
Behavioural changes	20	9.5
Drug and alcohol use	4	1.9
Other	8	3.8

Note: Open-ended response format to the question, 'What are the indicators or client warning signs observed that trigger your engagement in administration of a risk assessment process?'

TABLE 4 Key questions enabling a risk assessment

Question topic	N	%
Current suicidal thoughts	116	56.0
Current plans	34	16.4
Past attempt behaviour	19	9.2
Past suicidal thoughts	10	5.0
Support/coping	7	3.4
Mental health	7	3.4
Psychological pain	7	3.4
Self-harm thoughts	4	1.9
No mention of suicidality	3	1.4

Note: Open-ended response format to the question, 'What are the top key questions you might commonly ask a client to screen for suicide risk?'

received a moderate or high level of formal (73.6%) and informal (70.4%) training pertaining to suicide risk assessment. When asked about loss of a client to suicide and experience of client suicide attempt, more participants reported having a client attempt suicide (32.8%) than a client loss to suicide (12.8%). There were no significant differences between those who had reported these experiences of client loss and those who did not on VT scores, $t(94) = 1.02$, $p = 0.313$, $d = 0.37$, or ASPS scores, $t(96) = 1.02$, $p = 0.319$, $d = 0.33$. There were also no significant differences for those who experienced a suicide attempt by a client VT scores, $t(100) = 1.95$, $p = 0.055$, $d = 0.41$, or ASPS scores, $t(100) = 1.78$, $p = 0.078$, $d = 0.39$.

3.2 | Suicide risk assessment

Results showed that only 11.0% of LCS reported that they always conducted a suicide risk assessment. Participants described the key indicators that would typically motivate them to undertake a suicide risk assessment (Table 3). The most commonly identified reason (16.7%) for undertaking a suicide risk assessment was that a caller made indirect statements associated with suicide ideations (e.g. 'I can't go on anymore'). This was followed by a caller directly communicating their suicide ideation and emotional distress as interpreted by the LCS hearing the caller's tone and voice. Other indicators included a caller reporting mental health signs, life stressors/crises, behavioural changes and drug/alcohol usage.

Participants described the key questions they typically asked undertaking a suicide risk assessment (Table 4). The most common question pertained to directly asking about suicidal thoughts. This was followed by whether the caller had access to lethal means or suicide plans and questions focused on the temporal elements of suicidality such as inquiring about past suicidal attempt behaviours or past suicidal thoughts. Other areas of questions included asking about the support networks, coping mechanisms, mental health, psychological pain and self-harm thoughts.

LCS were asked about the paradigm of suicide risk assessment from which they administered their risk assessments. The majority of participants operated from a person-centred approach (92.0%), and no one responded that they operated from a strongly medical/clinician-oriented approach.

3.3 | Fears associated with suicide risk assessment

Most participants (40.8%) identified that they are always able to conduct a risk assessment or identify that no risk assessment is

required (31.2%). However, in response to a checklist of common fears associated with suicide risk assessment, frequently endorsed responses in the sample included, 'inability to connect and therefore obtain a truthful answer from the client,' 'fear of the client's reaction' and 'fear of being incapable of responding in a way that meets the client's needs.' These, and other less frequently endorsed fears, are displayed in Table 5.

Responses were coded into the presence or absence of fears related to suicide risk assessment and the number of fears present. As participants had the ability to select more than one fear, scores on this variable ranged from one to six, but were condensed into categories of zero, one, two and three or more to create more equal categories for analysis.

3.4 | Fears present and training

Independent *t*-tests were conducted to examine the effects of fears present on amount of informal training. There was no

statistical difference between those who did not report fears ($M = 4.17$, $SD = 0.87$) and those who reported fears ($M = 3.79$, $SD = 1.07$) on amount of informal training. Regarding formal training however, those who reported fears ($M = 2.67$, $SD = 0.84$) had less training than those who did not report fears ($M = 3.28$, $SD = 0.83$) (see Table 6). This suggests that more formal training is associated with less fear present around suicide risk assessment.

This was further explored by examining the relationship between the number of fears (None reported, one fear, two fears and three or more fears) and amount of informal and formal training. A one-way ANOVA revealed that for informal training, there was a significant effect of number of fears reported, $F(3, 96) = 3.23$, $p = 0.026$, $\eta^2 = 0.09$. A Tukey post-hoc test revealed those who had reported no fears had more informal training ($M = 4.30$, $SD = 0.83$) than those who reported two fears ($M = 3.36$, $SD = 1.29$). This suggests that more informal training is associated with fewer fears around the conduct of suicide risk assessment.

Similarly, there was a significant effect of number of fears on amount of formal training, $F(3, 98) = 5.45$, $p = 0.002$, $\eta^2 = 0.14$. A Tukey post-hoc test revealed those who had only those who reported no fears had more formal training ($M = 3.42$, $SD = 0.70$) than those who reported three fears or more ($M = 2.45$, $SD = 0.82$). This suggests that more formal training is associated with fewer fears around the conduct of suicide risk assessment.

TABLE 5 Identified barriers to suicide risk assessment

Barriers	n	%
Inability to connect and therefore obtain a truthful answer from the client	12	9.6
Fear of the client's reaction	10	8.0
Fear of being incapable of responding in a way that meets the client's needs	9	7.2
Lack of knowledge	8	6.4
Incomplete knowledge of managing suicidality subsequent to a determination of client risk status	7	5.6
My own anxiety and fear of the topic	6	4.8
Time pressure	5	4.0
Fear of doing the wrong thing	5	4.0
Fears that I might "push the client" to suicide	4	3.2
Fear of a positive answer requiring more clinical time	2	1.6

Note: Participants were able to check all responses that applied to the question, 'In the past, what have been some of your reasons for not conducting a suicide risk assessment?'

3.5 | Fears present and VT

To examine whether fears reported were associated with VT scores, an independent *t*-test was conducted. There were no significant differences between those who did not report fears ($M = 30.62$, $SD = 6.73$) and those who reported fears ($M = 31.37$, $SD = 7.21$) on VT levels, $t(99) = -0.50$, $p = 0.619$, $d = -0.10$.

3.6 | Fears present and ASPS

An independent t-test was conducted to examine the effects of fear on ASPS scores. There was no significant difference in ASPS scores between those with fears present ($M = 26.86$, $SD = 5.51$) and

TABLE 6 Independent samples t-tests of informal and formal training, VT and ASPS scores as a function of fear presence

	Fears present		Fears absent					
	M	SD	M	SD	t	df	p	d
Years in Role (N = 102)	5.97	10.14	9.40	9.60	1.62	100	0.108	0.35
Formal Training (N = 102)	3.60	1.00	4.26	0.87	3.36	100	0.001	0.73
Informal Training (N = 100)	3.79	1.07	4.17	0.87	1.84	98	0.690	0.41
VT (N = 101)	31.37	7.21	30.62	6.72	−0.50	99	0.619	0.11
ASPS (N = 99)	26.86	5.51	27.29	5.27	0.36	97	0.720	0.08

TABLE 7 Independent samples t-tests of demographic variables (Age and Years in Role), ASPS scores, informal and formal training as a function of VT levels

	Low VT		High VT					
	M	SD	M	SD	t	df	p	d
Age (N = 117)	59.17	13.23	51.67	15.76	2.69	115	0.008	0.51
Years in Role (N = 123)	9.24	11.14	6.42	7.55	1.56	76.97	0.124	0.31
ASPS (N = 120)	20.89	3.94	22.48	5.13	0.36	114.27	0.074	0.34
Formal Training (N = 123)	4.16	1.05	4.03	0.91	0.74	92.42	0.459	0.14
Informal Training (N = 121)	4.20	0.91	4.07	0.94	0.78	119	0.435	0.15

without fears present ($M = 27.29$, $SD = 5.27$), $t(97) = 0.359$, $p = 0.720$, $d = 0.08$. This indicates that those who report fears around suicide risk assessment do not significantly differ in their attitudes towards suicide prevention when compared to those who do not report fears around suicide risk assessment.

3.6.1 | Fears present and years in role

Independent t-tests were conducted to explore the relationship between fears present and years in role. We found no significant differences between those who have fears present ($M = 5.97$, $SD = 10.14$) or absent ($M = 9.40$, $SD = 9.60$) in years in role, $t(100) = 1.62$, $p = 0.108$, $d = 0.35$.

3.7 | Vicarious trauma levels

3.7.1 | VT and demographic variables

For the following analyses, VT levels were categorised as low = 0 to 28 and moderate to high VT = 29 to 56. Independent t-tests were conducted to explore the relationship between VT and demographic variables (age and years in role). Results revealed a statistically significant difference between the mean age of LCS who experienced low levels of VT ($M = 59.17$, $SD = 13.23$) compared to those with moderate to high levels of VT ($M = 51.67$, $SD = 15.76$), $t(176) = 2.687$, $p = 0.008$, $d = 0.51$. That is, slightly younger LCS experienced higher levels of VT, whilst somewhat older LCS experienced lower levels of VT. Lastly, LCS reporting low levels of VT ($M = 9.24$, $SD = 11.14$) had not significantly worked longer in suicide prevention compared to those with moderate to high levels of VT ($M = 6.42$, $SD = 7.5$), $t(76.97) = 1.56$, $p = 0.124$, $d = 0.31$ (see Table 7).

VT and Training Levels of VT were not associated with either formal or informal suicide risk assessment training. There were no significant differences between the level of formal training of LCS with low levels of VT ($M = 4.16$, $SD = 1.05$) and those with moderate to high levels of VT ($M = 4.03$, $SD = 0.91$), $t(92.42) = 0.744$,

$p = 0.459$, $d = 0.14$. Similarly, there were no significant differences between the level of informal training of LCS with low levels of VT ($M = 4.20$, $SD = 0.91$) and those with moderate to high levels of VT ($M = 4.07$, $SD = 0.94$), $t(119) = 0.783$, $p = 0.435$, $d = 0.15$.

3.7.2 | VT and ASPS

For ASPS scores, significant differences were observed between ASPS scores of LCS with low levels of VT ($M = 25.45$, $SD = 4.08$) and those with moderate to high levels of VT ($M = 27.60$, $SD = 5.49$), $t(114.95) = -2.446$, $p = 0.016$, $d = 0.34$. That is, LCS with moderate to high levels of VT reported more negative attitudes towards suicide prevention than those with lower levels of VT.

Finally, due to 100% of the sample having received informal training, we only compared the scores for those who received formal training. There were no significant differences between those who had received formal training and have not received formal training on ASPS scores, $t(119) = 1.10$, $p = 0.273$, $d = 0.50$.

4 | DISCUSSION

This study examined suicide risk assessment practices and behaviours of suicide prevention LCS to identify training and educational needs. We specifically aimed to examine the effect of VT and attitudes towards suicide prevention on suicide risk assessment behaviours and the effect of training on suicide risk assessment behaviours, VT and attitudes towards suicide prevention. Nearly all participants reported that Lifeline Australia provides organisational policies or procedures for responding to suicidal persons. This is important as guidelines for management and response of those in suicidal distress can guide minimum standard care and best practice in suicide prevention (Hill et al., 2019). Despite receiving moderate to high amounts of suicide-specific training, only a tenth of the participants reported *always* conducting a suicide risk assessment, though when doing so, this is instigated most by callers' indirect 'suicide-related' statements. Importantly, LCS respond with direct enquiries about suicidal thoughts, which is in line with the Lifeline

Operations Manual (Lifeline Australia, 2017). Direct and compassionate questioning around suicide is reportedly one of the most critical components of suicide risk assessment enquiries which assists in uncovering suicidal intent necessary for guiding safety responses (Shea, 2017).

The hypothesis that LCS with higher levels of VT will have more fears associated with suicide risk assessment was not supported. We found no differences in levels of VT between LCS who reported fears compared to those who did not report any fears. We also found no difference between levels of VT and length of experience in suicide prevention. However, our results showed a medium effect for age and VT such that younger middle-aged LCS experienced higher levels of VT, whilst older middle-aged LCS experienced lower levels of VT. Given that the actual age-span difference observed between these groups is only approximately 9 years, the clinical meaning of this result should be interpreted with some caution. Further investigations around age and other variables not measured in this study, such as differentiation of self (Halevi & Idisis, 2018), life and/or clinical experience (Aafjes-van Doorn et al., 2020; Pearlman & Mac Ian, 1995) may inform deeper understanding around this finding.

With regard to attitudes, a small effect was found for ASPS scores and VT such that those who experienced more VT endorsed more negative attitudes to suicide prevention. This finding may relate to previous research on the impact of working with traumatised clients and the finding that VT experiences can negatively shift individual schemas, or beliefs, assumptions and expectations of workers' personal world (Cohen & Collens, 2013). Thus, LCS with higher levels of VT may develop more negative attitudes towards suicide prevention as a result of being exposed to the crisis line callers' own traumatic experience.

The hypothesis that those with more negative attitudes towards suicide prevention will have more fears associated with suicide risk assessment was not supported as results revealed no significant differences in attitudes towards suicide prevention between those with and without fears. These findings are consistent with those of Hawgood et al. (2022) who found no association between number of suicide risk assessment-related fears and attitudes towards suicide at baseline (pre-training intervention). Our finding may reflect a distinction between external attitudes towards the importance of suicide prevention in contrast to internal fears about one's ability to effectively conduct a suicide risk assessment. Kene et al. (2019) define fears on suicide risk assessment as a sense of performance anxiety, fear of failure or fear of losing a client. From this perspective, fears are considered a reflection of intrinsic feelings about suicide risk assessment outcomes rather than being related to attitudes or beliefs internalised from suicide prevention trainings or experience. However, attitudes towards suicide and its prevention are multidimensional and therefore a complex construct which requires further study in LCS.

Hypotheses regarding the impact of training on fears, VT and attitudes towards suicide prevention were only partially supported.

We found a large effect for training and fears such that those with more training, regardless of formality, reported less fears associated with suicide risk assessment. Hawgood et al. (2022) also reported that professionals with more training and more positive perceptions of capability in suicide risk assessment practice reported fewer fears. This finding suggests the importance of adequate training for LCS around suicide risk assessment to build confidence and reduce fears around risk assessments. However, training was not associated with levels of VT in LCS.

4.1 | Limitations

The findings for this study should be considered in the context of its limitations. First, data for this study were only gathered cross-sectionally, limiting the ability to determine causality or temporal order from these results (Levin, 2006; Willems et al., 2021). Further, controlled or longitudinal studies are needed to understand directionality of these variables and how they may change over time. Second, recruitment for this study was conducted using convenience sampling methods, which limits the generalisability of these findings beyond LCS in this sample, to the suicide prevention crisis line workforce as a whole (Etikan et al., 2016; Kitchingman et al., 2018). Lastly, a deeper investigation of LCS experiences could be achieved through more comprehensive qualitative analysis or undertaking a real-time study of experiences following crisis calls.

4.2 | Implications for practice and future directions

The findings in this study have practical implications for Lifeline Australia and other crisis organisations. First, to ensure LCS are confident and less fearful of conducting a suicide risk assessment with crisis line callers, crisis line organisations must provide sufficient training, whether through formal in-service trainings or informal supervision and one-on-one consultation. Additionally, given the potential for younger middle-aged LCS to be more vulnerable to VT, there is a need for targeted supports both for this cohort and more generally for employees within the organisation. Organisations such as crisis support services, where employees are exposed to crisis and/or traumatic situations of their clients, can mitigate potential VT through the provision of trauma informed service delivery and infrastructure (Hallinan et al., 2019). Proactive responses may include a combination of these aforementioned organisational responses as well as individual initiatives such as psychoeducation, mindfulness and art and recreational programs (Kim et al., 2021). Additionally, it is expected that Lifeline Australia will utilise these findings to identify focused training and support opportunities, informed by experiences of VT and other suicide-related practices and behaviour in their LCS. Future research would benefit from longitudinal explorations of LCS suicide risk assessment behaviours and VT to understand how working in these roles may impact them over time.

5 | CONCLUSION

This study highlighted the importance of training, regardless of formality, and its relation to decreased fears around conducting suicide risk assessments in LCS. Additionally, results revealed that VT is associated with younger middle-aged LCS and more negative attitudes towards suicide prevention. These findings may inform organisational and individual support initiatives for Lifeline Crisis Supporters. Overall, this work contributes to the limited research on the experiences of suicide prevention crisis line workers and the personal and professional factors that influence their suicide risk assessment behaviours whilst interacting with crisis line callers.

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