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Intentions and confidence as predictors of mental health first aid: Findings from a longitudinal study

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Abstract

Background: Mental health first aid (MHFA) training can improve confidence and intention to help a person with a mental health problem, but there is limited research exploring whether this results in better support provided. This study aims to evaluate the relationship between a person's confidence and intention to help with the quality of support provided.

Methods: Australian public servants who had received MHFA training or Physical First Aid training ($n = 152$) completed questionnaires exploring attitudes and skills for assisting someone at work with a mental health problem. Data on confidence and intention to help was used to predict quality of support provided at 1 and 2-year follow-up. Data were analysed using linear and logistic regression.

Results: Intention to help predicted the quality of support for assisting someone at work at follow-up (rs=0.15−0.20, $p < .0.05$), while confidence in providing help only predicted quality of support 1-year later ($rs = 0.42$, $p = .032$). These relationships were significantly attenuated after controlling for personal stigma, desire for social distance, gender, age, language spoken at home, level of education and whether participant managed staff. Furthermore, there were some large associations between intentions to perform specific first aid actions and carrying out the same action at follow-up such as for encouraging professional help at 2-year follow-up (OR=8.20, $p < 0.05$).

Conclusion: Findings indicate that intended actions to support a person with a mental health problem can predict the quality of support provided up to 2 years later. Future research should clarify whether this support benefits the mental health of recipients.

KEYWORDS
confidence, follow-up, intentions, mental health first aid, support quality

1 | INTRODUCTION

In Australia, almost half (45.5%) the total population experiences a mental health disorder at some point in their life and only one third of these individuals use health services for mental health problems (AIHW, 2020). This may be because (i) professional help is not always available (ii) individuals are not aware that support is required or that effective help is available (Yap et al., 2011) (iii) perceived stigma of

mental illnesses restricting individuals from seeking professional help (Jorm & Wright, 2008); and (iv) negative experiences from previous help-seeking (Tay et al., 2018). The gap between prevalence of mental illnesses and utilization of health services suggests that a large percentage of the population relies on informal support, for example, from friends, family and colleagues (Jorm et al., 1997). Moreover, in a large number of cases where individuals end up seeking professional help, it is usually due to the encouragement and support of the informal network (Morgan et al., 2017). This makes it important to equip the general population with the necessary skills to provide initial support to someone with a mental illness (Jorm, 2012). Despite this, a lack of knowledge and skills to recognize and approach someone with a mental health problem often results in hesitation to assist someone undergoing a mental health crisis (Yap & Jorm, 2012).

In order to improve the mental health knowledge and skills of the population, mental health first aid (MHFA) Australia launched its first training course in 2000. MHFA courses aim to provide participants with the confidence, knowledge and skills to assist individuals facing a mental health issue until appropriate professional help is received or the crisis is resolved. More specifically, the course teaches how to recognize the signs and symptoms and how to offer initial help and guide people towards appropriate treatments and support using the MHFA action plan (MHFA, 2020).The action plan, developed through expert consensus, represents the core elements of all MHFA responses and stands for Approach the person, Assess and Assist with any crisis, Listen non-judgmentally, Give support and information, Encourage appropriate professional help and Encourage other supports (commonly referred to as ALGEE).

Mental health first aid training has been extensively evaluated in over 50 studies (Morgan et al., 2018). The evaluations consistently demonstrate that MHFA courses reduce stigmatizing attitudes and improve knowledge of mental illnesses and confidence in providing support to a person experiencing a mental illness (Hart et al., 2018; Kitchener & Jorm, 2006; Morgan et al., 2018). Moreover, research has found that the intention to help a person with a mental health problem improves significantly with MHFA training compared with physical first aid training, including in the longer term (Reavley et al., 2018, 2021). A smaller number of studies have also investigated the potential impact on the quality of support provided to the person developing a mental health problem (Crawford & Burns, 2020; Hadlaczky et al., 2014; Jensen et al., 2016; Morgan et al., 2018). The existing very limited research suggests moderate, non-significant improvement in the quality of support provided post MHFA (Morgan et al., 2018). Therefore, it is unclear whether MHFA's positive effects on confidence and intention to help translates into quality support provided to a person with a mental health problem. In addition, the studies also note that it is difficult to measure behaviour change, such as the number of times trained individuals help another person after completing the course, as it is contingent on encountering such situations. Therefore, confidence and intentions are used as proxy measures of behaviour change in evaluations of MHFA training (Morgan et al., 2018).

The case for exploring the association between confidence, intentions and behaviour rests more broadly in the role of social cognition in predicting health behaviour, suggesting that people tend to utilize the skills taught in courses in real life (Garland et al., 2013). There is reasonable evidence to suggest that change in intention impacts change in behaviour (Abraham et al., 1998; Conner & Norman, 1995; Webb & Sheeran, 2006) and self-efficacy beliefs and confidence are related to health behaviour outcomes, as people are motivated to perform behaviours, they believe will provide desired outcomes (Maibach & Murphy, 1995). There are limited studies that have investigated the link between MHFA intentions and behaviour with a longitudinal, prospective design. One study with 820 Australian adults who completed two surveys 6 months apart concluded that respondents who intended to assess and assist a hypothetical person in crisis were five times more likely to perform the same action in real life (Rossetto et al., 2016). Another study in 608 young people showed a small association between intended actions and the quality of support provided up to 2years later (Yap & Jorm, 2012). These two studies provide preliminary support for an association between MHFA intentions and the quality of support provided over time. Yet further evidence is required to support the use of intentions as suitable proxy measures of behaviour change in evaluations of MHFA training. This could be used to inform the evidence base of MHFA training, which despite its wide reach, lacks data on whether training leads to quality help provided to recipients of aid (Forthal et al., 2021).

This study aims to build upon the small number of existing studies that have examined the longitudinal relationship between a person's confidence and intention to help with the quality of support provided to a person known in real life at follow-up.

2 | METHODS

This research is a secondary analysis of data collected as part of the WorkplaceAID study (Reavley et al., 2018; 2021), a randomized controlled trial comparing the effectiveness of e-learning MHFA, blended MHFA and Red Cross eLearning Provide First Aid (PFA) on public servants' knowledge, stigmatizing attitudes, confidence in providing support and intention to provide support to a person with major depression or post-traumatic stress disorder (PTSD).

2.1 | Study population

Eligible participants were Australian adults who were Victorian government employees or Commonwealth government employees in the Australian Capital Territory and had not participated in MHFA or PFA before. Participants were made aware of the study via flyers, intranet articles and staff events. A total of 608 participants were recruited between 2014 and 2017, and participation in the study was completely voluntary. Participants provided informed consent by registering at the trial website after checking the participant information

sheet which included all the relevant information and a link to the baseline questionnaire.

The WorkplaceAID study collected data prior to training, post training, 1 and 2-years later. For this paper, participants were eligible for analysis if they provided data post training ($n = 152$) and on support quality at 1-year ($n = 113$) or 2-year follow-up ($n = 90$). We did not include the pre-training assessment data, because we expected MHFA training would influence the intention and confidence to help, and our focus was on whether intended support predicted support provided in the future (Kelly et al., 2011; Uribe Guajardo et al., 2019). Focusing our analyses on post-training data would allow us to examine this relationship without the confound of training effects. Of note, participants who provided help at follow-up demonstrated slightly better helping intentions at post-training ($M_{diff} = 0.65$, $p = .017$) and confidence ($M_{diff} = 0.32$, $p = .002$) than those who did not.

2.2 | Study measures

Intended support and confidence in helping assessed post-training were used to predict the quality of support provided at 1- and 2-year follow-up. Data to assess the outcome was collected using questions around a vignette of a person "John" with major depression and "Paula" with PTSD (Jorm et al., 2005; Reavley & Jorm, 2011).

2.2.1 | Intention

Intention was measured by asking respondents "Describe all the things you would do to help John/Paula", with open-ended responses coded against each ALGEE component (Rossetto et al., 2014). Responses with inadequate or no information were assigned 0 points, some information but not descriptive received 1 point (for e.g., spoke to the person) and clear detailed responses more in line with mental health training advice received 2 points (for e.g., listened with empathy and concern). The points for each ALGEE category were added, with the total score ranging from 0 to 12. The scoring was tested for inter-rater reliability (ICC) which was 0.88 for the depression vignette and 0.94 for the PTSD vignette. The scoring was also tested for ALGEE components where Kappa (κ) ranged from 0.52 to 0.91 ($M = 0.67$) for the depression vignette and 0.60–1.0 ($M = 0.74$) for the PTSD vignette.

2.2.2 | Confidence

Confidence was measured by asking respondents "How confident do you feel in helping someone at work with a problem like John/Paula?" scored using a 5-point scale ranging from 1 = Not at all to 5 = Extremely. In order to avoid diluting the effect by dichotomizing the variable, confidence was treated as continuous in the analysis (Altman & Royston, 2006).

2.2.3 | Quality of MHFA provided

Quality of mental health support provided was self-reported and scored against five ALGEE components, as described above for intention. This was assessed for help provided at the workplace, "Over the last 12 months, has anyone that you work with had any sort of mental health problem?" followed by "Describe all the things you did to help" (open ended response). The response was scored based on ALGEE with quality of support ranging from 0 to 12 and only included individuals who provided support to a person known in real life. The scoring was tested for inter-rater reliability (ICC) which was 0.78. Similarly, the Kappa (κ) for ALGEE components ranged from 0.08 to 0.91 ($M = 0.44$) for support quality.

2.2.4 | Covariates

Respondents also completed a (i) personal stigma scale, containing nine items assessing beliefs whether the person in the vignette is weak-not-sick, or dangerous or unpredictable, rated on a 5-point scale ranging from "Strongly Agree" to "Strongly Disagree" (Griffiths et al., 2004). The Cronbach Alpha (α) for the depression vignette was 0.81 and PTSD vignette was 0.84; (ii) social distance scale, comprising five items assessing people's willingness to interact socially with John and Paula, rated on a 4-point scale ranging from "yes definitely" to "definitely not" (Jorm & Oh, 2009). The Cronbach Alpha (α) for the depression vignette was 0.92 and PTSD vignette was 0.94. These were assessed post training and higher scores on these scales indicated greater social distance and lower personal stigma. In addition, participant characteristics age, gender, tertiary education and language were also added as covariates in the multivariate analysis. Previous research findings suggest that that mental health support provided is often influenced by participant characteristics such as gender, age, language, educational attainment (Jorm et al., 2019; Rossetto et al., 2016; Yap et al., 2012); and knowledge and beliefs about mental health problems (stigma, desire for social distance) (Forthal et al., 2021; Jorm & Oh, 2009; Yap & Jorm, 2011).

2.3 | Data analysis

Four main sets of regression analyses were used to explore how well intention to help and confidence predicted the quality of support provided at 1 and 2-year follow-up.

Univariate linear regression was used to explore the association between predictors and the overall MHFA ALGEE quality score at 1and 2-year follow-up. As correlations across the vignettes were high for all predictors (>=0.76), these were averaged for the linear regression analysis (Dormann et al., 2013). In addition, logistic regression was performed to explore the univariable association for each component of the MHFA ALGEE, for example, how well does intention to assess and assist in any crisis predict actual assessing and assisting at follow-up. MHFA ALGEE scores for both intentions and support

TABLE 1 Descriptive statistics for predictors at baseline and action at follow-up.

Predictors	Baseline ($n = 152$)	Support quality[a]	
		1-year ($n = 113$)	2-year ($n = 90$)
Intentions[a]	5.36 (2.23)	3.39 (1.58)	3.26 (1.43)
Confidence[a]	3.73 (0.83)		
Personal stigma[a]	40.59 (3.90)		
Social distance[a]	7.37 (2.51)		
Age[a]	41.47 (10.37)		
Gender[b]			
Female	109 (72.19)		
Male	42 (26.75)		
Language[b]			
English speaker	143 (94.70)		
Non-English speaker	8 (5.30)		
Tertiary[b]			
Bachelor's degree or higher	96 (63.58)		
Other (diploma/certificate/high school)	55 (36.42)		
Manage staff[b]			
Yes	61 (40.4)		
No	90 (59.6)		

Note: The variables are summarized using "a" mean and *SD* "*b*" frequency and percentage.

quality were set as 0 for "no mention" and 1 for "basic or detailed response" (scores of 1 or 2). This approach allowed us to examine whether there was intention to perform each component and whether that actually occurred and is consistent with prior work in this area (Yap & Jorm, 2012). Regressions were then performed for each ALGEE component to explore whether component wise intended action predicted the quality at follow-up. Results from the two vignettes "Depression" and "PTSD" were reported separately as odds ratio with 95% confidence intervals and *p*-values.

Multivariate analysis for both linear and logistic regression controlled for stigma, social distance, respondents' gender (male as reference), age, language (language other than English as reference), tertiary education (below bachelor's degree as reference). Multivariate linear analysis also controlled for staff management (non-management as reference). Results were reported as unstandardized coefficients along with associated confidence intervals and *p*-values.

Data were analysed using Stata 14.1 and the significance level was set at $p < 0.05$.

3 | RESULTS

3.1 | Participant characteristics

The sample included 152 participants, with a mean age of 41.5 years ($SD = 10.4$), of which 72.2% were female, 63.9% were married or in de facto relationships, 94.7% spoke English at home, 63.9% had tertiary education and 40.4% managed staff.

3.2 | Descriptive characteristics of predictors and outcome

Table 1 shows the descriptive statistics for predictor and control variables at baseline and quality at 1 and 2-year follow-up summarized using mean and *SD* as well as frequency and percentage. Intention to help was higher at baseline compared to support provided at follow-up.

The percentages of respondents endorsing ALGEE components for intention at baseline and support at follow-up are displayed in Figure 1. The rates of participants engaged in each behaviour were much lower across each ALGEE component compared to intentions at baseline, particularly for approach the person and assess and assist.

3.3 | Predicting factors and overall support quality

Table 2 summarizes the results from the univariate linear regression models and indicates that intention to help predicted the quality of MHFA at follow-up, whereas confidence in providing help only predicted quality of actions 1-year later. Moreover, lower desire for social distance significantly predicted support quality at follow-up while personal stigma was a positive predictor 2-years later only.

Multivariate analysis for intentions predicting support quality controlled for stigma, social distance, respondents' gender, age, language, tertiary education and staff management. The association between intention and support was smaller, particularly at 2-year follow-up where it was no longer significant. The regression results are summarized in Table 2. A similar multivariate model was repeated

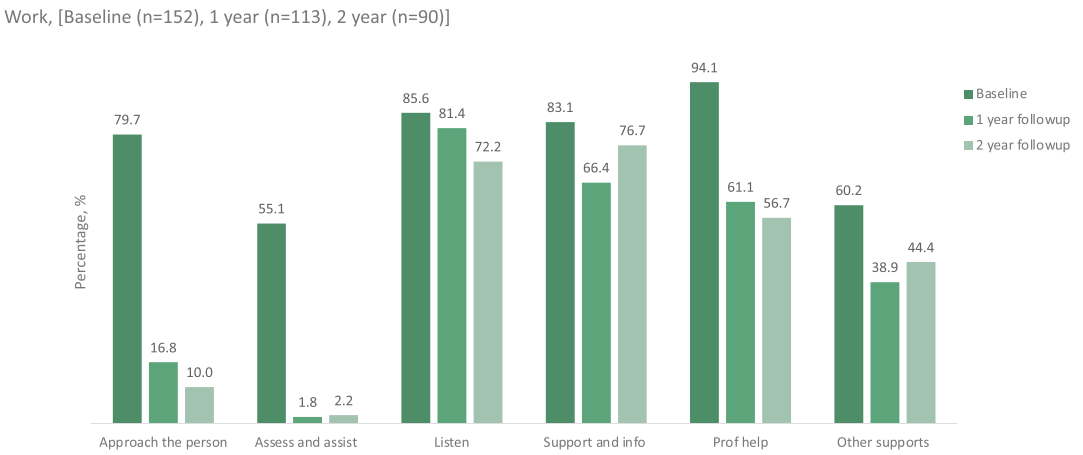

FIGURE 1 Respondents endorsing action plan components for intention at baseline and support at follow.

TABLE 2 Linear regression results for predictors at baseline with overall support quality at follow-up.

	Unadjusted				Adjusted			
	B [95% CI]	*p*-value	B [95% CI]	*p*-value	B [95% CI]	*p*-value	B [95% CI]	*p*-value
	1-year follow-up ($n = 113$)		2-year follow-up ($n = 90$)		1-year follow-up ($n = 113$)		2-year follow-up ($n = 90$)	
Intentions	**0.20 [0.05, 0.35]**	**0.008**	**0.15 [0.01, 0.28]**	**0.032**	**0.19 [0.03 0.35]**	**0.020**	0.08 [−0.07, 0.23]	0.280
Confidence	**0.42 [0.04, 0.80]**	**0.032**	0.31 [−0.08, 0.71]	0.117	0.31 [−0.12, 0.74]	0.164	−0.05 [−0.51, 0.41]	0.818
Personal stigma	0.06 [−0.02, 0.15]	0.154	**0.10 [0.02, 0.19]**	**0.014**	−0.004 [−0.11, 0.11]	0.940	0.07 [−0.04, 0.17]	0.213
Social distance	**−0.13 [−0.27, −0.01]**	**0.044**	**−0.13 [−0.25, −0.01]**	**0.038**	−0.09 [−0.26, 0.07]	0.263	−0.03 [−0.20, 0.13]	0.685
Gender					0.18 [−0.55, 0.90]	0.621	0.21 [−0.54, 0.96]	0.575
Age					0.02 [−0.01, 0.04]	0.313	−0.01 [−0.04, 0.02]	0.604
Language					0.44 [−0.83, 1.72]	0.492	1.25 [−0.59, 3.09]	0.180
Tertiary					−0.28 [−0.95, 0.38	0.396	−0.06 [−0.78, 0.66]	0.876
Manage staff					−0.34 [−1.02, 0.35]	0.333	0.52 [−0.19, 1.23]	0.145

Note: Significant results of the data analysis are highlighted in bold.

for confidence at baseline and action at follow-up after controlling for stigma, social distance, respondents' gender, age, language, tertiary education and staff management. There were no significant predictors identified in this model, as the association between confidence and support at 1-year follow-up was no longer significant.

3.4 | Predicting factors and quality of component wise support quality

Table 3 compares the results for both depression and PTSD vignettes. Results show that respondents were three to four times more likely to listen non-judgementally at follow-up if they had mentioned these actions at baseline in the PTSD cohort.

In order to explore the impact of other predictors on the intention and quality association, sociodemographic variables (gender, age, language, and tertiary education), social distance and personal stigma were entered into a multivariate regression. Overall, predictors changed the strength of the relationship for "encouraging other supports" in depression vignette, which increased to twice and three times as likely and "Listen non judgementally" in PTSD vignette, which increased to four to six times as likely. These results were the only ones consistent across both time points. Table 4 details the multivariate regression results for comparing component wise intention scores at baseline with quality scores at follow-up after controlling for stigma, social distance, respondents' gender, age, language and tertiary education.

4 | DISCUSSION

This research used survey data collected from Australian public servants at three time points to understand the relationship between

TABLE 3 Logistic regression results for comparing ALGEE component intention scores at baseline with support quality at follow-up.

	Depression				PTSD			
	OR [95% CI]	*p*-value	OR [95% CI]	*p*-value	OR [95% CI]	*p*-value	OR [95% CI]	*p*-value
	1-year follow-up ($n = 113$)		2-year follow-up ($n = 90$)		1-year follow-up ($n = 113$)		2-year follow-up ($n = 90$)	
Approach	1.44 [0.42, 4.87]	0.561	1	Nil	2.17 [0.65, 7.28]	0.211	2.74 [0.30, 24.87]	0.371
Assess & assist	1	Nil	1	Nil	5.00 [0.30, 84.45]	0.264	1	Nil
Listen	2.39 [0.79, 7.22]	0.123	0.80 [0.23, 2.85]	0.730	**3.28 [1.09, 9.86]**	**0.035**	**4.14 [1.35, 12.69]**	**0.013**
Support & information	1.10 [0.42, 2.87]	0.846	1.63 [0.47, 5.60]	0.439	1.70 [0.64, 4.52]	0.285	**3.50 [1.05, 11.65]**	**0.041**
Professional help	1.15 [0.40, 3.26]	0.797	1.19 [0.37, 3.90]	0.770	2.33 [0.68, 7.97]	0.176	**8.20 [1.59, 42.24]**	**0.012**
Other supports	2.25 [0.97, 5.25]	0.059	**3.27 [1.22, 8.78]**	**0.019**	1.12 [0.49, 2.57]	0.793	1.85 [0.72, 4.76]	0.203

Note: Bold indicates highlight the significant results of the data analysis considering that there are quite a few results being displayed.

intentions and confidence with the quality of support provided to a person with a mental health problem. More specifically, we aimed to investigate whether their confidence and self-reported intention to help predicted the quality of their future support.

There was a small-to-moderate association between intention and overall quality of support provided to someone at work, which was consistent over both 1 and 2-year follow-up (rs = 0.15–0.20, $p < 0.05$). This finding is also consistent with earlier research, which showed a moderate association ($r = 0.27$) between intentions and action at 6-month follow-up (Rossetto et al., 2016) and a small association ($r = 0.11$) at 2-year follow-up (Yap & Jorm, 2012). Conversely, confidence in providing help only predicted quality of support 1-year later. This is consistent with earlier studies of shorter duration which observed a small to moderate association ($r =$ 0.03–0.14) (Kitchener & Jorm, 2002, 2004; Mason et al., 2015; Rossetto et al., 2016). In multivariate models the association between intentions and behaviour was similar at 1-year follow-up but by 2-year follow-up it was smaller and no longer significant. There was little variance explained by the multivariate model, which suggests that other unmeasured variables are important and may play an important role in the association between intention and quality of support.

Analysis of intentions to perform individual components of ALGEE found that there were significant associations for some components but not all. For example, individuals with an intention to listen and communicate non-judgmentally with a person described in a PTSD vignette were three to four times more likely to perform the same action 1–2 years later. This reinforces earlier research findings (Rossetto et al., 2016) and is consistent over a longer follow-up. This finding is also consistent with a previous MHFA randomized controlled trial which found that at 2-year follow-up the most commonly reported type of help offered was "listening and communicating non-judgmentally" (Crawford & Burns, 2020). Prior similar research with a 6-month follow-up concluded that individuals with "intention to assess and assist" in a crisis are five times more likely to perform the subsequent action (Rossetto et al., 2016), however results for this component were not significant in this study. Multivariate analysis largely supported the findings of the simple regressions, with some associations becoming stronger.

This study provides insight into whether intention to help and confidence predict support quality over the long term, which has received limited research attention (Forthal et al., 2021). It adds to the evidence base of the MHFA programme demonstrating that intention to help results in better quality support offered. This is important because MHFA training has been shown to improve the quality of intended support offered to a person with a mental health problem (Cohen's d = 0.75 post-training) (Morgan et al., 2018). Although it should be noted that there is insufficient evidence that this support benefits the recipient (Forthal et al., 2021). Together, these findings indicate the long-term potential impact of community support and action. In 2019 alone the cost of mental illnesses to businesses was estimated at $13 billion yearly (PWC, 2019), which further demonstrates the value of equipping the public with knowledge and skills to intervene early. The relatively small association between intention and support quality suggests that other factors beyond intentions and confidence are important. Qualitative research that focused on developing a model of help giving for people with mental health problems concluded that help giving is based on a range of complex factors, such as ability and capacity to help (lack of time, prioritizing self-care), helper's characteristics, experiences or circumstances (e.g., lack of sociability), danger and safety concerns in such situations (Rossetto et al., 2018). Other barriers to helping have also been identified, such as the perceived illness type and the type of relationship between helper and recipient (Morgan & Rossetto, 2021). It would be useful for future studies to also take into account the barriers to intentions translating into behaviour. These barriers (such as emotional capacity to help, concern over whether support would add value) could then be addressed directly in the training. Future studies could also include organizational tenure in the analysis to explore the role of tenure in recognizing behaviour change in colleagues which could trigger support (Carpini et al., 2021).

There are also a few limitations to this study. The study sample was focused on public servants and skewed towards a working population of middle-aged females, English speakers, married people, non-managers and individuals with a tertiary degree. This limits the generalisability of the results. Considering that responses were self-reported, they may also have been subject to recall bias since

TABLE 4 Logistic regression results for ALGEE component intention scores at baseline with support quality at follow-up after controlling for stigma, social distance, respondents' gender, age, language, and tertiary education.

	Depression				PTSD			
	1-year follow-up ($n = 113$)		2-year follow-up ($n = 90$)		1-year follow-up ($n = 113$)		2-year follow-up ($n = 90$)	
	OR [95% CI]	*p*-value	OR [95% CI]	*p*-value	OR [95% CI]	*p*-value	OR [95% CI]	*p*-value
Approach	1.39 [0.39, 5.00]	0.612	1.00	Nil	2.28 [0.64, 8.11]	0.202	2.35 [0.22, 25.39]	0.483
Personal stigma	1.01 [0.86, 1.19]	0.901	0.93 [0.69, 1.26]	0.639	0.94 [0.81, 1.09]	0.378	0.92 [0.75, 1.13]	0.416
Social distance	0.89 [0.68, 1.15]	0.356	0.96 [0.65, 1.43]	0.855	0.93 [0.70, 1.23]	0.592	0.94 [0.60, 1.48]	0.802
Gender	1.85 [0.56, 6.14]	0.316	1.50 [0.20, 11.50]	0.696	1.77 [0.53, 5.85]	0.352	1.62 [0.23, 11.51]	0.631
Age	1.03 [0.98, 1.09]	0.206	1.03 [0.93, 1.13]	0.573	1.03 [0.98, 1.08]	0.305	1.04 [0.95, 1.14]	0.430
Language	0.90 [0.09, 9.17]	0.926	1.00	Nil	0.92 [0.09, 9.39]	0.942	1.00	Nil
Tertiary	0.70 [0.22, 2.22]	0.547	1.05 [0.12, 9.37]	0.968	0.65 [0.20, 2.06]	0.458	0.84 [0.10, 7.03]	0.875
	OR [95% CI]	*p*-value	OR [95% CI]	*p*-value	OR [95% CI]	*p*-value	OR [95% CI]	*p*-value
Assess and assist	1.000	Nil	Nil	Nil	7.04 [0.24, 209.84]	0.260	Nil	Nil
Personal stigma	0.99 [0.54, 1.81]	0.970	Nil	Nil	0.64 [0.371, 1.12)	0.118	Nil	Nil
Social distance	0.54 [0.12, 2.42]	0.425	Nil	Nil	1.00	Nil	Nil	Nil
Gender	5.11 [0.18, 145.44]	0.340	Nil	Nil	5.78 [0.14, 236.78]	0.355	Nil	Nil
Age	0.97 [0.82, 1.15]	0.728	Nil	Nil	1.02 [0.81, 1.29]	0.846	Nil	Nil
Language	1.00	Nil	Nil	Nil	1.00	Nil	Nil	Nil
Tertiary	0.89 [0.03, 24.79]	0.947	Nil	Nil	1.29 [0.04, 38.95]	0.885	Nil	Nil
	OR [95% CI]	*p*-value	OR [95% CI]	*p*-value	OR [95% CI]	*p*-value	OR [95% CI]	*p*-value
Listen	2.27 [0.68, 7.65]	0.185	0.59 [0.12, 2.85]	0.515	**3.95 [1.17, 13.37]**	**0.027**	**6.74 [1.76, 25.74]**	**0.005**
Personal stigma	1.09 [0.93, 1.28]	0.290	1.18 [0.98, 1.42]	0.080	1.02 [0.84, 1.22]	0.867	1.04 [0.88, 1.23]	0.680
Social distance	1.11 [0.86, 1.44]	0.427	1.05 [0.82, 1.36]	0.689	1.06 [0.77, 1.47]	0.712	0.95 [0.69, 1.30]	0.742
Gender	0.99 [0.26, 3.77]	0.992	1.04 [0.29, 3.73]	0.948	0.86 [0.24, 3.12]	0.814	0.62 [0.16, 2.45]	0.498
Age	1.02 [0.97, 1.07]	0.523	1.01 [0.95, 1.08]	0.728	1.03 [0.98, 1.09]	0.259	1.02 [0.96, 1.09]	0.496
Language	0.41 [0.04, 4.01]	0.444	2.63 [0.14, 49.68]	0.520	0.72 [0.07, 7.43]	0.781	2.87 [0.15, 53.49]	0.481
Tertiary	0.36 [0.10, 1.32]	0.123	0.31 [0.70, 1.37]	0.121	0.34 [0.09, 1.25]	0.104	0.24 [0.05, 1.18]	0.079
	OR [95% CI]	*p*-value	OR [95% CI]	*p*-value	OR [95% CI]	*p*-value	OR [95% CI]	*p*-value
Support and information	1.00 [0.36, 2.79]	0.996	1.79 [0.40, 8.05]	.450	2.09 [0.72, 6.07]	0.175	**3.67 [1.03, 13.10]**	**0.045**
Personal stigma	1.02 [0.90, 1.16]	0.739	1.18 [0.98, 1.43]	0.078	0.95 [0.82, 1.09]	0.456	1.01 [0.84, 1.21]	0.956
Social distance	0.93 [0.77, 1.12]	0.423	1.15 [0.88, 1.52]	0.311	0.99 [0.79, 1.25]	0.946	0.95 [0.71, 1.28]	0.736
Gender	0.90 [0.33, 2.47]	0.841	1.26 [0.31, 5.05]	0.744	0.60 [0.21, 1.72]	0.342	0.78 [0.21, 2.90]	0.706
Age	1.00 [0.96, 1.04]	0.993	0.96 [0.90, 1.03]	0.258	1.00 [0.96, 1.04]	0.964	0.98 [0.93, 1.05]	0.629
Language	1.19 [0.22, 6.52]	0.838	0.95 [0.04, 22.53]	0.974	1.20 [0.22, 6.46]	0.829	0.63 [0.02, 16.93]	0.785
Tertiary	0.87 [0.34, 2.22]	0.777	0.38 [0.08, 1.79]	0.223	0.78 [0.31, 2.00]	0.609	0.58 [0.14, 2.37]	0.451

(Continues)

TABLE 4 (Continued)

	Depression				PTSD			
	1-year follow-up ($n = 113$)		2-year follow-up ($n = 90$)		1-year follow-up ($n = 113$)		2-year follow-up ($n = 90$)	
	OR [95% CI]	***p*-value**	**OR [95% CI]**	***p*-value**	**OR [95% CI]**	***p*-value**	**OR [95% CI]**	***p*-value**
	OR [95% CI]	*p*-value	OR [95% CI]	*p*-value	OR [95% CI]	*p*-value	OR [95% CI]	*p*-value
Professional help	1.07 [0.34, 3.36]	0.905	1.11 [0.30, 4.18]	0.876	2.34 [0.65, 8.37]	0.191	**12.86 [1.82, 90.69]**	**0.010**
Personal stigma	1.02 [0.89, 1.16]	0.819	0.98 [0.83, 1.15]	0.770	1.05 [0.92, 1.20]	0.515	0.94 [0.80, 1.10]	0.446
Social distance	0.87 [0.72, 1.06]	0.159	0.82 [0.64, 1.04]	0.098	0.95 [0.75, 1.19]	0.632	0.80 [0.60, 1.05]	0.111
Gender	2.17 [0.68, 6.87]	0.188	3.11 [0.84, 11.55]	0.090	2.12 [0.70, 6.49]	0.186	**4.52 [1.02, 20.06]**	**0.047**
Age	1.01 [0.97, 1.06]	0.573	1.01 [0.95, 1.07]	0.741	1.01 [0.97, 1.06]	0.556	0.99 [0.93, 1.05]	0.732
Language	1.44 [0.26, 8.06]	0.681	2.27 [0.13, 41.26]	0.580	1.60 [0.28, 9.01]	0.595	2.84 [0.09, 87.25]	0.551
Tertiary	1.09 [0.41, 2.88]	0.866	1.03 [0.33, 3.19]	0.959	1.01 [0.39, 2.64]	0.977	0.78 [0.24, 2.60]	0.687
	OR [95% CI]	*p*-value	OR [95% CI]	*p*-value	OR [95% CI]	*p*-value	OR [95% CI]	*p*-value
Other supports	2.51 [1.01, 6.25]	0.049	3.41 [1.10, 10.55]	0.033	1.11 [0.46, 2.69]	0.813	1.43 [0.50, 4.07]	0.508
Personal stigma	0.97 [0.85, 1.12]	0.701	1.09 [0.90, 1.32]	0.362	1.03 [0.89, 1.20]	0.686	1.05 [0.89, 1.24]	0.542
Social distance	0.94 [0.78, 1.15]	0.562	0.93 [0.73, 1.19]	0.582	0.98 [0.79, 1.23]	0.894	0.94 [0.72, 1.24]	0.679
Gender	0.81 [0.28, 2.30]	0.689	1.54 [0.42, 5.72]	0.514	0.86 [0.32, 2.37]	0.777	1.50 [0.45, 5.04]	0.508
Age	**0.94 [0.90, 0.99]**	**0.011**	0.99 [0.93, 1.04]	0.612	**0.95 [0.91, 0.99]**	**0.015**	1.00 [0.94, 1.05]	0.860
Language	0.92 [0.17, 5.11]	0.924	1.00	Nil	0.78 [0.14, 4.29]	0.772	1.00	Nil
Tertiary	1.40 [0.53, 3.66]	0.496	**5.38 [1.46, 19.78]**	**0.011**	1.44 [0.56, 3.69]	0.446	**5.34 [1.56, 18.26]**	**0.008**

Note: Significant results of the data analysis are highlighted in bold.

respondents were asked to recall information from an entire year. The research relied on the ALGEE scoring system to code open ended responses, which were often brief and lacked sufficient detail about the helping intention or action. Moreover, the inter-rater reliability statistics for the ALGEE components of provided support were on average fair, which may have attenuated the association between intentions and action. For example, "approaching the person" was often coded as "insufficient/no response", even though it may be implicit in another action such as "listening emphatically", resulting in a lower score for the component. Future research could explore alternative methods of measuring intentions and actions that minimize measurement error whilst capturing the full spectrum of behaviours. One such approach used in a national survey of suicide first aid created a scale of recommended and not recommended actions. These scales showed a greater association between intentions and action than responses scored using an open-ended approach (Jorm et al., 2018, 2019).

5 | CONCLUSION

The results of this research support the existing literature that there is a link between MHFA intentions and behaviour and improve the understanding of the factors predicting quality of support over a longer time period. Overall mental health problems are estimated to cost the Australian economy up to $60 billion annually in health care, lost productivity and other costs (PWC, 2019). Given the role of early help-seeking in improving prognosis and reducing long-term disability and associated productivity losses, there is value in building the capacity of those in workplaces to provide effective support for people with mental health problems.

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CONFLICT OF INTEREST

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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