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Taneile Kitchingman

University of Wollongong, tak901@uowmail.edu.au

Coralie J. Wilson

University of Wollongong, cwilson@uow.edu.au

Peter Caputi

University of Wollongong, pcaputi@uow.edu.au

Ian G. Wilson

University of Wollongong, ianwil@uow.edu.au

Alan Woodward

Lifeline Australia, University of Melbourne

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Kitchingman, Taneile; Wilson, Coralie J.; Caputi, Peter; Wilson, Ian G.; and Woodward, Alan, "Testing a model of functional impairment in telephone crisis support workers" (2017). *Faculty of Science, Medicine and Health - Papers: part A*. 5196.

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Abstract

Background: It is well known that helping professionals experience functional impairment related to elevated symptoms of psychological distress as a result of frequent empathic engagement with distressed others. Whether telephone crisis support workers are impacted in a similar way is not currently reported in the literature. **Aims:** The purpose of this study was to test a hypothesized model of factors contributing to functional impairment in telephone crisis support workers. **Method:** A national sample of 210 telephone crisis support workers completed an online survey including measures of emotion regulation, symptoms of general psychological distress and suicidal ideation, intentions to seek help for symptoms, and functional impairment. Structural equation modeling was used to test the fit of the data to the hypothesized model. **Results:** Goodness-of-fit indices were adequate and supported the interactive effects of emotion regulation, general psychological distress, suicidal ideation, and intentions to seek help for ideation on functional impairment. **Conclusion:** These results warrant the deliberate management of telephone crisis support workers' impairment through service selection, training, supervision, and professional development strategies. Future research replicating and extending this model will further inform the modification and/or development of strategies to optimize telephone crisis support workers' well-being and delivery of support to callers.

Disciplines

Medicine and Health Sciences | Social and Behavioral Sciences

Publication Details

Kitchingman, T. A., Wilson, C., Caputi, P., Wilson, I. & Woodward, A. (2017). Testing a model of functional impairment in telephone crisis support workers. *Crisis: the Journal of Crisis Intervention and Suicide Prevention*, 38 (6), 403-412.

Testing a model of functional impairment in telephone crisis support workers

Taneile A. Kitchingman^{1,2}, Coralie J. Wilson^{2,3}, Peter Caputi¹, Ian Wilson³, Alan Woodward^{4,5}

¹School of Psychology, University of Wollongong, Wollongong, Australia

²Illawarra Health and Medical Research Institute, University of Wollongong, Wollongong, Australia

³Graduate School of Medicine, University of Wollongong, Wollongong, Australia

⁴Lifeline Australia, Canberra, Australia

⁵Centre for Mental Health, Melbourne School of Population and Global Health, University of Melbourne, Melbourne, Australia

Abstract

Background: It is well known that helping professionals experience functional impairment related to elevated symptoms of psychological distress as a result of frequent empathic engagement with distressed others. Whether telephone crisis support workers are impacted in a similar way is not currently reported in the literature.

Aims: The purpose of this study was to test an hypothesised model of factors contributing to functional impairment in telephone crisis support workers.

Methods: A national sample of 210 telephone crisis support workers completed an online survey including measures of emotion regulation, symptoms of general psychological distress and suicidal ideation, intentions to seek help for symptoms, and functional impairment. Structural equation modelling was used to test the fit of the data to the hypothesised model.

Results: Goodness-of-fit indices were adequate and supported the interactive effects of emotion regulation, general psychological distress, suicidal ideation and intentions to seek help for ideation on functional impairment.

Conclusions: These results warrant the deliberate management of telephone crisis support workers' impairment through service selection, training, supervision and professional development strategies.

Future research replicating and extending this model will further inform the modification and/or development of strategies to optimise telephone crisis support workers' wellbeing and delivery of support to callers.

This article does not exactly replicate the final version published in the journal "Crisis: The Journal of Crisis Intervention and Suicide Prevention". It is not a copy of the original published article and is not suitable for citation.
doi:10.1027/0227-5910/a000435

Testing a model of functional impairment in telephone crisis support workers

It is well known that helping professionals (e.g., medical practitioners, psychologists) experience functional impairment. A significant proportion of helpers report impaired personal functioning, commonly clustered around emotional exhaustion, fatigue, irritability, problems with interpersonal relationships and sleep disturbance (Mahoney, 1997; Thoreson, Miller, & Krauskopf, 1989). Large-scale surveys also suggest helpers are at risk of professional impairment, including failure to provide services within professional standards of care (Guy, Poelstra, & Stark, 1989; Pope, Tabachnick, & Keith-Spiegel, 1987; Sherman & Thelen, 1998; American Psychological Association, 2009).

An identified pathway to functional impairment is via elevated symptoms of psychological distress. Distress does not necessarily result in functional impairment (O'Connor, 2001). However, it often precedes functional impairment and is considered a "warning signal" (Baker, 2003, p. 21). Helping professionals are at risk of experiencing elevated symptoms of depression and suicidal ideation (Deutsch, 1985; Gilroy, Carroll, & Murra, 2002; Pope & Tabachnick, 1994), burnout (Rupert & Kent, 2007; Rupert & Morgan, 2005) and compassion fatigue (Shapiro et al., 2007). Certain occupational hazards within helping professions increase the risk of distress, including negative client behaviours, isolation, lack of therapeutic progress, demanding administrative duties, multiple roles, and long work hours (Norcross, Guy, & Laidig, 2007; O'Connor, 2001; Smith & Moss, 2009).

To date, research on helpers' functional impairment related to psychological distress has focused on registered professionals who provide face-to-face support, meaning that other helpers who may be at risk are likely to have been overlooked. The National Coalition for Suicide Prevention (2014) recently issued a directive to train volunteer crisis support workers "to manage their own needs, as well as the needs of those they respond to" (p. 21). However, a systematic review of the literature identified that conclusions about telephone crisis support workers' impaired functioning related to symptoms of psychological distress are unable to be made due to the paucity and methodological limitations of current data (Kitchingman, Wilson, Caputi, Wilson, & Woodward, submitted).

The current study will address gaps in the literature by testing an hypothesised model of impairment using a national sample of telephone crisis support workers. In the following sections, we

briefly review conceptualisations relevant for understanding functional impairment related to psychological distress, emotion regulation and help-seeking, before summarising prior research concerning relationships among those components that provides empirical support for the relationships in our hypothesised model.

Functional impairment and psychological distress

Functional impairment is a common complication of elevated symptoms of psychological distress. In fact, limited ability to manage day-to-day activities in social, occupational and other important areas of functioning is an explicit part of the criteria for diagnosing and determining the level of severity of psychological disorders. Traditionally, more attention has been paid to symptoms than to impairment (Mundt, Mark, Shear, & Greist, 2002). However, a current focus on functional impairment is required due to evidence that assessment of day-to-day functioning adds usefully to the prediction of treatment need and outcome, treatment planning and tracking clinical progress (Ustun & Kennedy, 2009).

To the best of our knowledge, the American Psychological Association-endorsed stress-distress-impairment continuum (Advisory Committee on Colleague Assistance, n.d.) is the only published conceptual framework regarding helpers' impairment. The continuum describes the likely progression from stress to distress to impairment for helpers who do not pursue or receive appropriate ameliorative effects to interrupt this progression. It posits that all helpers experience stress, but that specific occupational stressors place them at risk of experiencing distress. Those who use inappropriate or ineffective means to manage their distress are at increased risk of experiencing impairment, including compromised functionality, sub-optimal service delivery, inappropriate or unethical behaviour. The continuum provides a useful heuristic by which helpers may monitor and manage their personal needs in order to ensure optimal functioning. However, it is not grounded in theory and fails to include neuroscience literature describing how helpers respond to distress from others. In order to develop an evidence-based model of telephone crisis support workers' functional impairment, the stress-distress-impairment continuum needs to be grounded in theory, and operationalised according to mechanisms identified in the literature on helpers.

Neuroscientific theory of empathic engagement

Empathy is an essential factor in effective helping (Cozolino, 2006), and accounts for approximately 10% of the variance in psychotherapy outcomes (Bohart, Elliot, Greenberg, & Watson, 2002). Empathy is regarded as a critical feature of crisis lines and other front-line services for individuals in crisis – who are by definition likely to be experiencing elevated levels of personal distress at the time of contact with a service (Hoff, Hallisey, & Hoff, 2009; Lester & Rogers, 2012). However, neuroscience has also identified empathy as a primary conduit for helpers' development of personal distress (Decety & Lamm, 2006; Figley, 2002; Gallese, 2004). Neuroimaging studies demonstrate that when one engages with others in distress, a component process involving a distinct pattern of neural activation takes place. Affect sharing is a bottom-up process that has been attributed to the human mirror neuron system – a cortical network composed of parts of the parietal and frontal lobes (Decety & Lamm, 2006; Gallese, 2004; Singer & Lamm, 2009). Observing (e.g., listening to and/or envisioning) another person in a particular emotional state activates the helper's mirror neuron system, causing them to experience similar affective, autonomic and somatic responses (Gibbons, 2011). By engaging empathically with crisis callers in the context of stressors which are unique to providing telephone crisis support (Coman, Burrows, & Evans, 2001), it is likely that telephone crisis support workers experience heightened mirror neuron activation, and stronger subsequent affective, autonomic and somatic responses.

Identified mechanisms of helpers' distress and impairment

Difficulties with emotion regulation

Emotion regulation is the activation of a goal to modify the emotion-generative process (Gross, Sheppes, & Urry, 2011). In the context of the helping role, this involves a top-down, executive control process to self-regulate the helper's affective response to what has been observed (Decety & Meyer, 2008; Preston & Hofelich, 2012). This requires the helper to 1) identify, and 2) describe their feelings. Research suggests that emotion regulation moderates the relationship between affect sharing and personal distress (Eisenberg & Eggum, 2009). While affect sharing is inevitable and conducive to empathy, exposure to others' distress in the absence of adequate emotion regulation is likely to lead to personal distress (Decety & Jackson, 2006). Accordingly, researchers have consistently emphasised the need for

helpers' intentional management of affect sharing by emotion regulation to modulate personal distress (Decety & Meyer, 2008; Eisenberg & Eggum, 2009; Decety & Lamm, 2009; Decety & Moriguchi, 2007). These findings suggest that telephone crisis support workers who experience exacerbated mirror neuron system activation and subsequent strong negative affect responses to callers' distress, but have difficulty identifying, describing and regulating their emotions, are likely to experience elevated personal symptoms of psychological distress.

Help-seeking

The helper's inappropriate or ineffective management of personal distress is an identified mechanism of impaired functioning. While helpers are trained in the identification and rehabilitation of distress, they may fail to employ adaptive strategies to cope with personal symptoms. Seeking help for early treatment can successfully reduce the long-term impact of many mental health problems (Rickwood, Deane, & Wilson, 2007). However, epidemiological studies suggest that there might be a general tendency of help withdrawal or avoidance among those currently experiencing clinical and sub-clinical levels of different forms of distress, including suicidal thoughts (Wilson, Bushnell, & Caputi, 2011). Without deliberate attention to helper self-care, services also can foster a culture in which the helper views their health as a reflection of their competence (Charlemagne-Odle, Harmon, & Maltby, 2014; Siebert & Siebert, 2007; Wallace & Lemaire, 2009). Helping professionals report that they are unlikely to seek help for elevated personal symptoms of distress, especially from another professional (Daronkamas, Burton, & Cushway, 1994; Deutsch, 1985; Guy, 2000; Guy, Poelstra, & Stark, 1989). Helpers who fail to seek help for elevated personal symptoms of distress are likely to experience impaired functioning (American Psychological Association, 2010; Pope, Tabachnick, & Keith-Spiegel, 1987; Thomas, 2013). If this is true for professional helpers, it is plausible that telephone crisis support workers may also negate help-seeking for personal symptoms of distress, increasing their risk of functional impairment.

Hypothesised model

On the basis of this evidence, it is worthwhile to study the combined effect of difficulty with emotion regulation, symptoms of psychological distress and help-seeking intention when assessing functional impairment in telephone crisis support workers. The hypothesised model of telephone crisis

support workers' functional impairment is presented in Figure 1. In keeping with neuroscientific theory, difficulty with emotion regulation was hypothesised to effect functional impairment indirectly via psychological distress. With respect to prior literature on helping professionals, we also hypothesised that help-seeking intentions would moderate the relationship between psychological distress and functional impairment.

Study aims

The aim of this study was to test an hypothesised model of impairment using a national sample of telephone crisis support workers. To the best of our knowledge, this is the first study to examine telephone crisis support workers' functional impairment, and the first time a model that specifies direct and indirect linkages between difficulty with emotion regulation, symptoms of psychological distress, help-seeking intentions and functional impairment has been tested empirically to examine such complex relationships collectively; therefore, this study represents unique extensions of prior work in the area.

Figure 1. Hypothesised model of functional impairment in telephone crisis support workers.

Methods

Results focusing on different hypotheses from the current sample have been reported elsewhere (Kitchingman, Wilson, Caputi, Woodward, & Hunt, 2015). With the exception of the measures that are unique to this study, only a brief description of the methods is given.

Participants and procedure

Participants were recruited from the largest volume telephone crisis support service provider in Australia. All participants were volunteer Telephone Crisis Supporters (TCSs) who had completed a

standardised, vocationally accredited training course which includes a minimum of 75 hours of e-learning, face-to-face training modules, group supervision, observing and being observed by an experienced TCS taking calls on the crisis line. After a final role-play assessing readiness to commence solo shifts on the crisis line, TCSs are required to complete a minimum of 92 hours taking calls on the crisis line, eight hours of group supervision, and eight hours of professional development per year. Periodic monitoring of calls is also conducted for coaching purposes.

A national sample of 210 Telephone Crisis Supporters (TCSs) participated by completing an online survey (return rate of 62%). The majority of participants were female (78.1%), Australian-born (73.3%), located in a metropolitan area (60.5%), had completed a university degree (60%) and had 0-2 years of experience as a TCS (60.5%). More specific sample characteristics are reported elsewhere (Kitchingman et al., 2015).

Approval for this study was granted by the University's Human Research Ethics Committee. Participants were recruited directly via an email containing an electronic link to the online survey. All participants gave consent to complete the online survey with responses identifiable only by a computer-generated code number.

Online survey and measures

The online survey contained three sections. Section 1 measured participants' demographic characteristics. Section 2 included measures to assess symptoms of general psychological distress and suicidal ideation. Section 3 included measures of difficulty with emotion regulation, help-seeking intentions and functional impairment.

Demographics

Categorical items were used to assess participants' age, sex (male=1, female=2), location (regional/rural/remote=1, metropolitan=2), highest educational qualification (university degree=1, none/high school/apprenticeship/diploma=0) and number of years of experience as a TCS (0-2 years=1, more than 2 years=2).

Psychological distress

General psychological distress. Items of the Kessler Psychological Distress Scale – Ten-item version (K10; Kessler et al., 2002) were rated on a 5-point Likert scale ranging from 1 *None of the time* to 5 *All of the time*. Responses to individual items were summed to obtain a scale score ranging from 0-50, with higher scores indicating more severe symptoms of general psychological distress. Scores of 0-15 indicated *Low*, 16-21 *Moderate*, 22-29 *High*, and 30-50 *Very High* symptoms of general psychological distress. A Cronbach's alpha coefficient of .86 was obtained for the current sample, indicating strong internal consistency.

Suicidal ideation. Suicidal ideation was measured by the critical items of the Adult Suicidal Ideation Questionnaire (ASIQ-CI; Reynolds, 1991). These items examine the intensity and lethality, together with the specificity and availability of a suicide plan in the last month (Reynolds, 1991). Responses were made on a 7-point Likert scale ranging from 0 *I have never had this thought before* to 6 *Almost every day*. Individual items scores were summed to obtain a scale score ranging from 0-48, with higher scores indicating more severe suicidal ideation. Scale scores of 0 to 8 indicated *Minimal*, 9-32 *Moderate*, and 33-48 *Critical* suicidal ideation (Reynolds, 1991; Wilson, Deane, Marshall, & Dalley, 2010). In the current study, removal of the item 'I thought about writing a will' produced a highly reliable scale ($\alpha = .91$, 7 items).

Difficulty with emotion regulation

Difficulty identifying and describing feelings. The Toronto Alexithymia Scale 20 item version (TAS-20; Bagby, Parker, & Taylor, 1994; Bagby, Taylor & Parker, 1994) is a self-report measure of deficits in the cognitive processing and regulation of emotion (Taylor, 2000). The measure has three subscales: Difficulty Identifying Feelings (7 items, e.g., 'I am often confused about what emotion I am feeling'), Difficulty Describing Feelings (5 items, e.g., 'It is difficult for me to find the right words for my feelings'), and Externally-oriented Thinking (8 items, e.g., 'I find examination of my feelings useful in solving personal problems' [reversed]). Items are rated on a 5-point Likert scale ranging from 1 *Strongly disagree* to 5 *Strongly agree*. The Externally-oriented Thinking subscale has been found to be unreliable (Kooiman, Spinhoven & Trijsburg, 2002) so was not included. As in previous studies (Ciarrochi, Wilson,

Deane & Rickwood, 2003; Taylor, 2000), Difficulty Identifying Feelings and Difficulty Describing Feelings subscales were moderately correlated ($r = .62$) and, with the exception of one item ('I am able to describe my feelings easily' [reversed]), collapsed into a single scale. Items which collapsed into a single scale were combined to produce the highly reliable scale (*Difficulty Identifying and Describing Feelings*, $\alpha = .90$, 11 items). Evidence suggests that the TAS-20 provides a valid and reliable method for measuring difficulty with emotion regulation (Taylor, 2000).

Help-seeking intentions

The item used to measure help-seeking intentions was taken verbatim from the GHSQ-V (Wilson, Rickwood, Bushnell, Caputi, & Thomas, 2011). Three vignettes were introduced to participants as the stories of callers to a crisis line. These vignettes mapped to SIQ critical items for severe suicidal ideation and DSM-IV-TR criteria for a major depressive episode and acute general anxiety. These particular problem types (for brevity described as suicide, depression and anxiety) were chosen to reflect the highest proportion of calls made to Australian telephone crisis support lines (Burgess et al., 2008; Lifeline, 2005). In response to the prompt "If you were feeling like (caller's name), how likely is it that you would seek help from the following people?", participants rated the likelihood that they would seek help from nine help-sources: 1) partner, 2) friend, 3) parent, 4) other relative, 5) work colleague, 6) doctor, 7) mental health professional, 8) phone helpline, and 9) mental health website. Participants rated the likelihood that they would seek help from each source for suicide, depression and anxiety on a 7-point Likert scale ranging from 1 *Extremely Unlikely* to 7 *Extremely Likely*. Based on the results of principal component analysis, the depression and anxiety scales were combined to produce a highly reliable, single scale *intentions to seek help for psychological distress* ($\alpha = .87$, $9 \times 2 = 18$ items). A separate scale was used to examine *intentions to seek help for suicidal ideation* ($\alpha = .78$, 9 items).

Functional impairment

To assess clinically significant impairment in social, occupational, or other important areas of functioning, the K10 (Kessler et al., 2002) also contains an additional two items which assess ability to function in day-to-day roles: 1) "In the last four weeks, how many days were you totally unable to work, study, or manage your day to day activities because of these feelings?", and 2) "(Aside from those days),

in the last four weeks, how many days were you able to work, study, or manage your day to day activities but had to cut down on what you did because of these feelings?" Responses to these items were analysed separately, and are referred to as days out of role (DOR), and days cut back (DCB), respectively.

Data analysis

All data were checked for normality of distribution using Shapiro-Wilkes Tests. Skewness and kurtosis coefficients >1 were used to identify variables in need of log transformation. Means, standard deviations and correlations were calculated for study variables.

To test the hypothesised associations between variables, data were analysed using structural equation modelling (SEM) using AMOS Version 22 for Windows. A fully saturated model that provided coefficients for all observed pathways between the variables was tested. Model parameters were estimated using the maximum likelihood method. Because large sample sizes always lead to significant χ^2 results (Bentler & Bonnet, 1980), model fit was estimated with both the comparative fit index (CFI) and root mean square error of approximation (RMSEA). According to conventional criteria, CFI $>.95$ and RMSEA $<.08$ indicate acceptable fit (Byrne, 1991).

Results

Preliminary results

To correct for positive skew of K10 and ASIQ scores, loglinear transformation was applied prior to analysis. Transformed versions of these variables were used in all reported analyses unless otherwise specified as raw data. For ease of expression, transformed variables are described as *general psychological distress*, and *suicidal ideation* in the results. As expected, correlations indicated significant relationships between most variables within the model, justifying their inclusion (see Table 1).

Table 1 shows the means, standard deviations and correlations between study variables. Fifteen participants (7.1%) reported at least 1 DOR, and 35 participants (16.7%) reported at least 1 DCB during the past month. Most participants reported low symptoms ($n = 151$, 71.9%), and minimal ideation ($n = 204$, 97.1%); 59 participants (28.1%) reported moderate to very high symptoms of psychological distress. Most participants reported minimal suicidal ideation ($n = 204$, 97.1%); six participants reported moderate suicidal ideation.

Table 1. Intercorrelations between and descriptive statistics for study measures ($N = 210$)

Measure	1	2	3	4	5	6	7	8	9	10	11	12
1 Age	-	-.08	.17*	-.11	.31***	-.12	-.30***	-.14	-.12	-.08	-.17*	-.06
2 Sex		-	.01	-.03	-.11	-.08	.01	-.17	.15*	.09	-.15*	-.15*
3 Location			-	-.27***	.18**	.01	-.03	-.17	-.06	.03	.07	.06
4 Education				-	-.02	-.15*	.01	-.05	.06	.12	-.12	-.07
5 Experience					-	-.09	-.11	-.04	-.07	.02	.07	.17*
6 Difficulty identifying and describing feelings						-	.53***	.25**	-.15*	-.14*	-.01	.19**
7 General psychological distress							-	.19*	-.18***	-.18*	-.01	.18*
8 Suicidal ideation								-	-.25**	-.27**	.42***	.18
9 Intentions to seek help for psychological distress									-	.82***	-.27***	-.21**
10 Intentions to seek help for suicidal ideation										-	-.18**	-.16*
11 Totally unable to manage day-to-day activities											-	.39***
12 Had to cut down day-to-day activities												-
<i>M</i>	49.05					19.17	14.10	2.00	4.22	4.15	.23	1.17
<i>SD</i>	14.23					6.80	4.35	3.30	1.00	1.14	1.84	4.43
Observed range						11-40	10-32	0-29	1-6.89	1-7	0-26	0-28
Possible range						11-55	10-50	0-48	1-7	1-7	0-28	0-28

Compared as two groups, participants who reported moderate to very high symptoms of psychological distress reported significantly greater functional impairment than participants who reported low symptoms (DOR $F(1, 208) = 5.17, p = .024$, DCB $F(1, 208) = 23.31, p = .000$). Participants who reported moderate suicidal ideation also reported significantly greater functional impairment than those who reported minimal ideation (DOR $F(1, 208) = 25.62, p = .000$, DCB $F(1, 208) = 22.35, p = .000$).

Overall, participants reported that they were likely to seek help for symptoms of psychological distress ($M = 4.22, SD = 1.00$) and suicidal ideation ($M = 4.15, SD = 1.14$). However, participants who reported moderate to very high symptoms of general psychological distress reported significantly lower intentions than participants who reported low symptoms $F(1, 204) = 4.09, p = .044$. Participants who reported moderate suicidal ideation also reported significantly lower intentions to seek help than those who reported minimal suicidal ideation $F(1, 204) = 8.76, p = .003$.

Model testing

The saturated model was found to provide an adequate fit to the data, ($df = 4, \chi^2 = 8.90$; CFI = .96; RMSEA = .077). Estimation of the standardised regression weights indicated that the majority of variance in the model was accounted for by 4 of 6 observed paths. Interaction effect analysis also showed that 3 of 4 hypothesised moderations were significant. The empirically supported model is presented in Figure 2. Follow-up analyses indicated that a re-specified model with non-significant paths deleted did not provide a better fit to the data than the initial model, $\chi^2(2) = 1.20, p = .548$.

Table 2. Parameter estimates

Construct relationship	β	SE	Moderation by ISH-GPD	Moderation by ISH-SI
A. DIFD $\rightarrow$ GPD	.02***	.01		
B. DIFD $\rightarrow$ SI	.01	.02		
C. GPD $\rightarrow$ DOR	-.27	.28		
D. GPD $\rightarrow$ DCB	2.60*	1.02	$\beta = .06$	
E. SI $\rightarrow$ DOR	1.08***	.05		$\beta = -.53***$
F. SI $\rightarrow$ DCB	1.17.***	.20		$\beta = -.26^*$

Note. DIFD = difficulty identifying and describing feelings; GPD = general psychological distress; SI = suicidal ideation; ISH-GPD = intentions to seek help for general psychological distress; ISH-SI = intentions to seek help for suicidal ideation; DOR = days out of role; DCB = days cut back. *** $p < .001$, ** $p < .01$, * $p < .05$.

Figure 2. Empirically supported model of functional impairment in telephone crisis support workers.

* $p < .05$, ** $p < .01$, *** $p < .001$.

Discussion

A significant number of telephone crisis support workers who participated in this study reported impaired normal functioning. As expected, difficulties with emotion regulation influenced functional impairment via symptoms of general psychological distress. Also as expected, the relationship between suicidal ideation and functional impairment was moderated by intentions to seek help, such that functional impairment was significantly greater where intentions to seek help were low. These results are consistent with previous research indicating that helping professionals with elevated symptoms of psychological distress are likely to experience impaired functioning, particularly in the absence of adequate emotion regulation and help-seeking.

Contrary to expectations, emotion regulation was not significantly related to suicidal ideation. It is possible that participants who experienced difficulties identifying and describing feelings were unable to identify and self-report their suicidal ideation. It is also possible that there are other, more important factors associated with telephone crisis support workers' suicidal ideation that were not captured in this study, such as lived experience of suicide and/or mental health disorders (Nock et al., 2008). Also unexpectedly, symptoms of general psychological distress were not significantly associated with days totally unable to manage day-to-day activities. One possible explanation is that participating telephone crisis support workers did not experience sufficiently severe symptoms of psychological distress to cause functional impairment. Another explanation is that participants were reluctant to report impaired functioning. Further research is required to examine these possibilities.

One in four participants reported moderate to very high symptoms of general psychological distress, and six participants reported moderate suicidal ideation. These participants reported significantly higher functional impairment, but significantly lower intentions to seek help than those who reported low symptoms of general psychological distress and suicidal ideation, respectively. These results suggest that help-negation occurs in telephone crisis support workers exposed to crisis callers in response to elevated symptoms of psychological distress. It is possible that, like helping professionals, telephone crisis support workers may believe help-seeking for personal symptoms to reflect poorly on their competence. Further research is needed to explore this possibility. Alternatively, not seeking help may not always be a decision. A recent review indicates that cognitive distortion and disruption are indicated by symptoms of psychological distress, suggesting that decision making is impaired and elevated symptoms of psychological distress and suicidal ideation occur in an impaired brain (Bora & Berk, 2016).

This study uniquely contributes to the literature in several ways. To the best of our knowledge, this was the first study to examine whether helpers who are not in a registered professional role experience functional impairment. By testing an hypothesised model of functional impairment, direct and indirect relationships between a network of variables were able to be examined simultaneously, rather than focusing on a subset of predictors. Variables were included in the model on the basis of theory related to the neurobiology of engaging with others in distress, and identified mechanisms of functional impairment. The product of this study is an empirically supported model which explains how telephone crisis support workers may come to experience impaired normal functioning.

Some limitations of this work are also important to note. Data were provided by a representative sample of telephone crisis support workers from one organisation. Further studies should examine whether our results are generalisable to workers from other organisations. It may be regarded as a limitation that we used self-report measures of emotion regulation difficulties, symptoms of psychological distress, help-seeking intentions and functional impairment. Although a number of actions were taken to control for them, biases in self-report responses may be present. While they were not suited to the large-scale, online investigation required to detect direct and indirect relationships between functional impairment and other variables collectively, future studies may utilise observation and clinician-rated

scales rather than self-report measures. Questions about causality have not been adequately answered by the analyses presented in this study. Longitudinal studies are needed to more effectively uncover causal relationships between model variables. Such longitudinal studies may use a domain-specific measure of functional impairment, which would provide more specific information regarding impaired functioning in different areas (e.g., occupational, family and social functioning), and would be more sensitive to changes over time.

Despite the aforementioned limitations, this study has addressed substantial gaps in the literature, and the outcomes of this investigation afford important service implications. Results indicate that a significant proportion of telephone crisis support workers experience functional impairment related to elevated symptoms of psychological distress in the absence of adequate emotion regulation and help-seeking. These results warrant the deliberate management of telephone crisis support workers' impairment through selection, training, supervision and support strategies which acknowledge affect sharing as a normal component of empathic engagement with distressed others, and the role of adequate emotion regulation and help-seeking in preventing the development of elevated symptoms of psychological distress and functional impairment. Future research should seek to replicate and extend this model, and to further inform the modification and/or development of strategies to optimise telephone crisis support workers' wellbeing and delivery of support to callers.

Acknowledgements

The authors would like to thank the telephone crisis support workers who took part in this study, and the service managers who provided feedback and support.

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