

Asking for help and receiving support after a disaster

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Abstract

After a disaster strikes, many people need support – material, emotional and informational. To what extent does their comfort with asking others for support affect the support they receive? Participants were 191 residents of Christchurch, New Zealand (79 males, 112 females), who had experienced two major (4 September, 2010; 22 February, 2011), and many lesser, earthquakes. Surveys measuring help-seeking comfort, amount of support received, disaster exposure, and socio-economic status were delivered by hand to varying socio-economic areas around the city. The results indicate that the support people received was more influenced by their disaster exposure than by their comfort in asking for support, and that there was a disconnection between the type of help they were comfortable requesting and the type of support that they received. Overall, our respondents most reported receiving emotional support, received from friends and family in particular.

Keywords: Christchurch; earthquake; help-seeking; comfort; support

A rise in the human population has seen the rate of those affected by disasters grow dramatically (Aldrich, 2010; UNISDR, 2005; Peek & Mileti, 2002). With our increasingly interconnected world, the news and consequences of any disaster easily cross national borders (UNISDR, 2005). It has become increasingly important to improve our understanding of how people recover from such disasters.

Although a major part of recovery from disasters is aid related, it has been observed that people often fail to receive the help they need despite its availability (Carlton & Deane, 2000; Gourash, 1978; Moreira et al., 2005). One reason why they may not receive help is because they do not feel comfortable about asking for it. Some individuals simply find it harder to ask for help than others (Gourash, 1978; Kaniasty & Norris, 2000). This paper looks at people's comfort in asking for help in the wake of the Christchurch, New Zealand earthquakes of 2010-2011, and how this related to the support they received.

Marshall (1997, p.491) remarked that "New Zealanders pride themselves on their frontier spirit of self-help". However, when a large scale disaster occurs, such as the earthquakes experienced on September 4, 2010 and February 22, 2011, this value may prove maladaptive. These two earthquake events left households from all socio-economic backgrounds in need of help and support from family, friends, and outsiders.

The second large earthquake, in February, 2011) resulted in the death of 185 people. Thousands of Christchurch residents vacated their homes due to damage or destruction (Bruns & Burgess, 2012; Giovinazzi, Stevenson, Mitchell, & Mason, 2012; Kaiser et al., 2012; Potter, Becker, Johnston, & Rossiter, 2015). Around 900 business properties, the majority of them in the Central Business District, were consigned to demolition. Residents also dealt with extensive liquefaction, which reoccurred after major aftershocks and disproportionately affected those in the eastern and poorer suburbs (Kaiser et al., 2012; Smyrou, Tasiopoulou, Bal, & Gazetas, 2011). In addition, widespread power outages were experienced for up to 10 days following the February earthquake (Massie & Watson, 2011) and the city's sewage system was seriously damaged (Billings & Charman, 2011). The February earthquake was therefore by no means the end of the earthquake sequence impacts. There were also major earthquakes on 13 June and 23 December in 2011 that produced considerable damage in some areas.

These events led to psychological distress for many people, including sleep disruption, cognitive disruption, stress, anxiety and depression (Goenjian et al., 2000; Helton, Head, & Kemp, 2011; Kemp, Helton, Richardson,

Blampied, & Grimshaw, 2011). Although most people who experience psychological distress after a disaster seem to recover in reasonable time (Gluckman, 2011), this is by no means always the case. Some disaster-affected individuals develop post-traumatic stress and other longer term disorders (see for example, Ozer, Best, Lipsey & Weiss, 2003; Yzermans et al., 2005). The way the development of post-traumatic stress disorder can be predicted by a lack of social support (Ozer et al., 2003) was of particular relevance to the current research.

Resilience is an important concept in considering people's recovery from disasters and how they manage that recovery (Allenby & Fink, 2005; Bruneau et al., 2003; UNISDR, 2005; Norris, Stevens, Pfefferbaum, Wyche, & Pfefferbaum, 2008; UNISDR, 2007). There are many ways to define resilience and indeed Stevenson, Vargo, Ivory, Bowie and Wilkinson (2015) identified 120 different definitions of the concept. However, this variety of different definitions appears to reflect the vast variety of different applications of the concept rather than more conceptual differences in what the term implies.

For the current research, with reference to Allenby & Fink (2005), Norris et al. (2008) and Smith (2013), we defined psychological resilience to be a person's capability to cope and adapt following a significant emotional disturbance. Psychological resilience is studied partly with the aim of discovering and eventually creating the social environment needed to promote human resilience, thus further protecting at risk communities from future events (Carveth & Gottlieb, 1979; UNISDR, 2005; Norris et al., 2008; Smith, 2013).

In a post-disaster context, social support generally refers to the assistance that an individual may receive from his or her own network of social relationships during a stressful life event. This network includes family members, friends, co-workers, and acquaintances (Bott, 1971; Carveth & Gottlieb, 1979; Gourash, 1978; Norris et al., 2008; Tolsdorf, 1976), as well as non-governmental organisations and other agencies which essentially provide help to people who are not friends or acquaintances (Aldrich, 2010; Gaynor & Ben-Levy, 2003). There is good evidence that a high level of social support, variously measured by frequency of contact, number of individuals known or number of organisations offering help, can promote psychological resilience (Aldrich, 2010; Gaynor & Ben-Levy, 2003; Goodman et al., 1998; Norris et al., 2008; Pfefferbaum, Reissman, & Klomp, 2007; Tse & Liew, 2004). On the other hand, a

low level of social support has been theoretically linked to a higher susceptibility to disease (Cassel, 1976; Cohen, 1988; Miller, Chen & Cole, 2009).

As referred to above, a higher level of social support is also thought to act as a protective factor against the development of longer-term mental problems following stressful life events (Carveth & Gottlieb, 1979; Clapp & Gayle Beck, 2009; Cohen & Wills, 1985; Gourash, 1978; Tolsdorf, 1976). This means that, for example, those who perceived themselves as receiving more social support following the Great East Japan Earthquake coped better than those who did not (Sugimoto, Umeda, Shinozaki, Naruse, & Miyamoto, 2015). In terms of sleep disturbance, people did better if they received emotional rather than informational or material support from close others (Matsumoto, Yamaoka, Inoue, Inoue, Muto et al., 2015).

To access social support, people often have to seek help, whether from friends, relatives or strangers. Hence, a person's willingness to seek help is believed to be a direct predictor of the amount of support received (Kaniasty & Norris, 2000). However, some individuals find it harder to ask for help than others (Gourash, 1978; Kaniasty & Norris, 2000). Thus, it is important to clarify the factors that affect an individual's attitudes towards seeking help.

People who are very comfortable seeking help appear likely to hold the effectiveness and usefulness of the support received from their social network in high regard. Previous research suggests that young educated females with a medium to high socio-economic status are most likely to hold these attitudes (Gourash, 1978; Kaniasty & Norris, 2000). However, most evidence supporting this finding comes from data collected at service agencies in Western societies (Gourash, 1978). This type of data context may bias the results towards those who feel comfortable requesting help from strangers when it is likely that people generally feel most comfortable seeking help from their family and friends, and turn to professional agencies only when they cannot or do not receive the help they need from their personal support network (Gourash, 1978; Kasl, Gore, & Cobb, 1975; Quarantelli, 1960). The issue of who it was that people turned to after the Christchurch earthquakes is therefore a focal point for the current research.

Apart from gender, socio-economic status (SES) may influence one's comfort in seeking help following a disaster. Previous studies by Fothergill & Peek (2004),

Masozera, Bailey, & Kerchner (2007) and Smith (2013) support this idea. Given that older adults may, on average, be more likely to develop psychological problems following disasters (Jia et al., 2010), it is possible that older people are both less likely to seek, and less likely to receive, help. It also seems natural to hope that people would both seek and receive more help if they are more exposed to the disaster, for example, if their house is more seriously damaged.

General Hypotheses

In summary, our first hypothesis was that people's comfort in seeking help would relate to the support that people actually received. This is referred to as general hypothesis 1 for the remainder of the current paper. This hypothesis might be true both overall and within groups of individuals receiving different types and sources of support. For example, those seeking informational support from friends may also be those most comfortable in seeking informational support from friends.

Our second hypothesis was that we expected that women, older people, and those of higher SES, as well as people who were more affected by the disaster would both be more comfortable in seeking help and would end up receiving more support. This is referred to as general hypothesis 2 for the remainder of the current paper.

Method

Questionnaire

Research data was gathered using a single questionnaire booklet focused on the measurement of help-seeking comfort and the support received following the Canterbury earthquakes. This questionnaire booklet was distributed to a total 870 households among various socio-economic areas of Christchurch City, New Zealand. More details are outlined below and the verbatim phrasing of all questionnaire items is provided in Appendix A.

Disaster exposure. To measure the extent to which individual respondents were affected by the disasters, respondents were asked whether they had suffered each of seven different losses or problems, based on prior research by Norris & Kaniasty (1992): physical injury, residential relocation, property damage, appreciable financial loss, sentimental damage to property, job loss, or feared for his or her life. Respondents were asked to limit their responses to direct results of one of the major Christchurch earthquakes between September 4th 2010 and June 30th 2012.

All questions were answered in a yes or no format, except for the financial loss question, which was measured as a difference between the dollar value of the reported property damage and the insurance pay out. We limited responses to this question to losses of \$1,000 or greater as a measure of appreciable financial loss because \$1000 produced close to a median split of the sample – 52% of the sample claimed a loss of \$1000 or more. Physical injury was defined as the participant or another household member receiving physical injury, but all other questions referred to the respondent only.

Help-seeking comfort. Many help-providing agencies measure people's comfort in terms of seeking help from their particular agency. However, the current research required a measure that would cover both types of help that might be sought and from whom help might be sought. Kaniasty and Norris (2000) had developed a scale based on a prior scale by Hobfoll and Lerman (1989), that covered both the source of the aid (family, friends, and outsiders) and the type (material, emotional, and informational). This scale was found to be reliable for analysis in the current study (Cronbach $\alpha = .86$). Definitions for each help source were also based on Kaniasty and Norris (2000). For example, outsiders were defined in the survey as: people who are outside your immediate support circle such as community leaders, voluntary organizations like St John, professional service providers like health care professionals or complete strangers. (cf. Kaniasty & Norris, 2000, p. 556).

Three questions addressed respondents' comfort levels when asking for material, emotional, and informational aid. Each question was asked in regard to requesting such aid from family, friends, and outsiders. The questions were as follows: How comfortable do you feel requesting material aid from family/friends/outside if you are in need of such aid?; How difficult is it for you to request emotional support from family/friends/outside if you have problems or are undergoing a crisis? and; How difficult is it for you to request advice or information from family/friends/outside when you need it? Respondents answered using a 5-point scale, based on Hobfoll & Lerman (1989): 1 = very uncomfortable/very difficult; 2 = uncomfortable/difficult; 3 = neutral; 4 = comfortable/easy; 5 = very comfortable/very easy.

Support received. We also based questions concerning support received on Kaniasty & Norris (1995). This meant we assessed the support received from a particular source, being family, friends, and/or outsiders, as well as the amount of a particular type of help, being

emotional help, informational help, and/or material help. The three types of support received by participants were measured using a total of 12 items:

1. *Emotional Support* was measured using three items concerning the expression of interest, assurance, and affection.
2. *Informational Support* was measured using three items about receiving suggestions, information on how to do something, and receiving help in order to understand a situation.
3. *Material Support* was measured using six items that covered receiving money, food, shelter, tools/equipment, things other than money, and receiving help with cleaning/improving property.

More details are provided in Appendix A of the current paper. Each of the 12 items was asked in terms of help received from family members, friends, and outsiders. This meant the total scale included 36 items, with a reliability of Cronbach's $\alpha = .92$. Respondents answered each item using a four-point scale drawn from Kaniasty & Norris (1995): 1 = Never, 2 = Once or twice, 3 = A few times, 4 = Many times.

Socio-economic status. Socio-economic status was measured using the New Zealand Socio-Economic Index-96 (NZSEI-96) (Galbraith, Jenkin, Davis, & Coope, 2003). This measure has the advantage, in comparison to the more recent Elley-Irving Socio-Economic Index: 2001 Census Revision (Elley & Irving, 2003), of being readily applicable to females, part-time workers, and older people, with links to equivalent scales used in a range of other country settings (Davis et al., 2008; Galbraith, Jenkin, Davis, & Coope, 2003; Ganzeboom & Treiman, 1996). Respondents were asked about their occupation and responses were coded on a scale from 1 to 6, where 1 is high SES and 6 low SES occupations. Other, non-SES, demographic data concerning sex and age were also requested from respondents.

Procedure and Participants

Ethical approval was obtained from the University of Canterbury Human Ethics Committee. The questionnaire booklets were delivered by hand to people's homes. The homes were chosen so as to recruit respondents from low, medium and high SES areas as classified by Salmond, Crampton, & Atkinson (2007). The six areas were Jellie Park and Aranui, which were considered to both be low SES, Redwood South and Russley, both

medium SES, and Holmwood and Kennedy's Bush, both high SES. For more detail on the choice of areas and maps of delivery routes within the areas, see the Method section and Appendix C of Urmson (2014).

Envelopes containing the questionnaire, an information sheet, and self-addressed stamped envelopes were hand delivered on the 22nd June 2012 to each address on predetermined routes in each of the six areas (145 packs to each area, totalling 870). After 8 weeks, reminders were delivered to households that had not yet replied. A total of 211 questionnaires were returned (24.3% of the total distributed). 20 of the returned questionnaires were substantially incomplete, reducing the number of questionnaires available for analysis to 191, with a 22% response rate.

The final sample of 191 respondents included 79 males and 112 females, who ranged in age from 22 years to 88 years with a mean age of 54 ($SD = 15.2$). Thirty-six (18.9%) had high SES (1 or 2), 56 (29.3%) had medium SES, 40 (20.9%) had low SES, and 59 (30.9%) provided no SES information.

Analysis

Repeated measures analyses of variance were used to investigate the effect of, source, and type of help on both the respondents' comfort in seeking help and the support they received. We used Pearson correlations to investigate the relationship between support received and comfort in seeking it, both overall and for each combination of support type and source. Multiple regression and analyses of variance (ANOVAs) between groupings were used to examine the overall predictability of the support received. Additional analyses used t-tests to investigate gender effects and correlations to examine age and SES effects. All analyses were conducted with Statistica (Version 12, 2013) software.

Results

Earthquake-related impacts

Respondents reported the following impacts, determined by the seven questionnaire options provided to them:

- physical injury, 16 percent of respondents
- residential relocation, 22 percent of respondents
- property damage, 92 percent of respondents
- appreciable financial loss, 52 percent of respondents

- sentimental damage to property, 53 percent of respondents
- job loss, 15 percent of respondents
- feared for his or her life, 54 percent of respondents

A total disaster exposure score for each participant was calculated by summing yes responses to the seven questions. The average score was 3.0 on a scale from 0 to 7 (median = 3; *SD* = 1.4).

Help-Seeking Comfort

Table 1 indicates that the respondents were most comfortable with seeking help from family and least comfortable in seeking it from outsiders. They were most comfortable with seeking informational help. A two-way repeated measures ANOVA was carried out on help-seeking comfort results showing significant effects of the source of help ($F(2, 362) = 74.1, p < .0001$), the type of help ($F(2, 362) = 74.1, p < .0001$) and an interaction between source and type ($F(4, 724) = 12.2, p < .0001$). Levels of statistical significance were unaffected after Greenhouse-Geisser corrections for significant sphericity. Bonferroni post hoc comparisons on the source of help identified consistently significant differences ($p < .05$) between all three source of support means. Related tests showed that the respondents were most comfortable seeking informational help, with no difference in levels of comfort with seeking material help and emotional help. Considering an interaction effect between type and source of help, the respondents may have been relatively comfortable in seeking emotional but not material help from friends.

Table 1.
Mean Comfort in Seeking Three Different Kinds of Support from Three Different Potential Sources of Support

Source*:	Family	Friends	Outsiders	Average
Type of support*:				
Material	3.37 (1.37)	2.79 (1.26)	2.38 (1.22)	2.85
Emotional	3.19 (1.30)	3.05 (1.30)	2.17 (1.19)	2.80
Informational	3.74 (1.20)	3.80 (1.10)	3.10 (1.27)	3.55
Average	3.43	3.22	2.55	

*Note. All measured on a 5-point scale from 1 (very uncomfortable) through 3 (neutral) to 5 (very comfortable). Standard deviations shown in parentheses under the corresponding means.

Support Received

Table 2 shows the corresponding results for the support that the respondents reported receiving. They received most support from family and least support from outsiders. Overall, they reported receiving emotional support most of all and material support least of all. The two-way repeated measures ANOVA showed significant differences in the source of the support ($F(2, 350) = 95.5, p < .0001$), the type of support ($F(2, 350) = 217.8, p < .0001$) and the interaction effect ($F(4, 700) = 83.5, p < .0001$), with these significance levels unchanged by Greenhouse-Geisser corrections for sphericity. Post hoc Bonferroni comparisons showed significant ($p < .05$) differences between all three overall means for both type and source of support. Table 2 indicates that there was little difference between the three sources of support received for informational support. However, there appear to have been marked differences for emotional support received, in terms of the source of support.

Table 2.
Mean Support of Three Different Kinds Reportedly Received from Three Different Potential Sources of Support

Source:	Family	Friends	Outsiders	Average
Type of support:				
Material	1.61 (0.68)	1.39 (0.51)	1.15 (0.33)	1.38
Emotional	2.79 (0.94)	2.47 (0.88)	1.51 (0.67)	2.26
Informational	1.80 (0.75)	1.75 (0.75)	1.69 (0.79)	1.75
Average	2.07	1.87	1.45	

Note. All measured on a 4-point scale: 1 (never), 2 (once or twice), 3 (a few times), 4 (many times). Standard deviations shown in parentheses under the corresponding means.

What Determines the Support Received?

Table 3 shows Pearson correlations between overall support received, averaged over all types and sources, with overall comfort in seeking help, again averaged over types and sources. Correlations are also shown between overall support received and exposure to the disaster and between support received and demographic variables. Inter-correlations are also shown. Overall, contrary to general hypothesis 1, there was no significant correlation between support received and respondents comfort in seeking help.

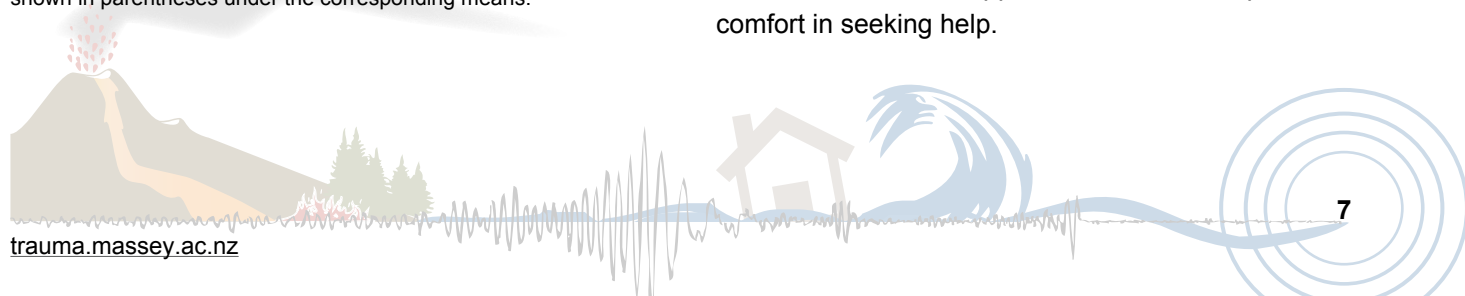


Table 3.
Pearson Correlation Coefficients (Pairwise) between Pairs of Variables

	HSC ¹	DE ²	Female	Age	SES ³
Support	.12	.36*	.22*	-.16*	-.01
HSC		-.02	.09	.07	-.04
DE			.16*	-.16*	-.07
Female				-.23*	.01
Age					.32*

* $p < .05$, two-tailed. Support = Overall support reportedly received from any source.

¹HSC = Overall comfort in seeking help from any source.

²DE = Reported exposure to disaster. Female (=1; Male = 0). Age = Age group.

³SES = Respondent's calculated socio-economic status (higher status has lower number).

The best single predictor of the support respondents received was the extent of disaster exposure. Younger respondents and women also received significantly more support. Both of these results partially supported general hypothesis 2, that women, older people, and those of higher SES, as those more affected by the disaster would both be more comfortable seeking help and would end up receiving more support.

We performed a multiple regression analysis to predict total support received from the variables shown in the table, except for SES, which was omitted because of the large number of missing values. This regression produced a significant ($p < .05$) beta-weight for disaster exposure ($\beta = .34$) only, with an overall R^2 of .19 ($F(4, 170) = 9.15, p < .001$).

Although there was no significant overall relationship between support received and comfort with seeking the support, table 4 shows significant relationships between support received and comfort seeking it for some types and sources of support. In particular, those who were more comfortable in seeking emotional support also reported receiving significantly more emotional support from all three sources. Respondents who were comfortable seeking information from friends also reported receiving more informational support. However, there were no significant associations between receiving material support and any source. Likewise, there were no significant association between informational support received and support received from family or outsiders.

Additional analyses showed that women ($M = 2.06, SD = .63$) were significantly more likely than men ($M = 1.77, SD = .53$) to receive support of all kinds from family ($t(182) = 3.25, p < .01, d = .50$) and friends (Women, $M = 1.81, SD = .56$; Men, $M = 1.62, SD = .50; t(185) = 2.37, p < .05$,

$d = .36$), but not from outsiders. They were particularly likely to receive emotional support from friends (Women, $M = 2.63, SD = .91$; Men, $M = 2.16, SD = .75; t(189) = 3.74, p < .001, d = .56$). These represented findings with a moderate, small and moderate effect size, respectively. There were no significant ($p < .05$), interactive effects of SES with either source of support or type of support on the amount of support received. Overall, with respect to general hypothesis 1, support received did appear to vary with age, gender and exposure to the disaster, but not with SES.

Table 4
Pearson Correlation Coefficients (Pairwise) between Support Reportedly Received and Help-Seeking Comfort for Each Combination of Support Type and Source

Source:	Family	Friends	Outsiders
Type of support:			
Material	-.02	.03	.14
Emotional	.27*	.40*	.15*
Informational	.13	.17*	.07

* $p < .05$, two-tailed.

Discussion

Kaniasty and Norris (2000) examined both help-seeking comfort and support received, in terms of both source and type, after Hurricane Katrina. This analysis is displayed in tables II and III of Kaniasty and Norris (2000). Despite the similarities between their study and the current research, a direct comparison could not be made with the current findings. This is because Kaniasty and Norris (2000) used a somewhat different scoring system for support received. There were also differences between ethnicity related results because Kaniasty and Norris (2000) collected data concerning US-based ethnicities. However, the overall patterns of results were still quite similar. In both studies there was greater comfort in seeking help and greater support received from family, while least support was received from outsiders. Both studies found that respondents appeared most comfortable with seeking informational help but that they most often received emotional support. There were also some differences between the two studies. For example, the current respondents appear to have received less frequent support overall, compared to respondents in Kaniasty and Norris (2000).

Contrary to general hypothesis 1, neither individual nor group differences in participants' comfort with seeking help appeared to influence support received following the Christchurch earthquakes. Firstly, there

was no significant correlation between overall support received and help-seeking comfort. Secondly, there was an evident mismatch between the type of support respondents felt comfortable in seeking and the support they received. If the type of support received had matched participants' comfort seeking that support, then we would expect the category of most frequent support to have been informational. However it was emotional support instead. This overall finding needs some qualification because it applies when considering material and informational support in particular. Independently of other types of support, emotional support received did appear to depend on comfort with seeking that support, particularly when emotional support was received from family and friends.

Most of us would hope that, should a disaster occur, the people who received most support would be those who most needed it rather than those who were most comfortable in seeking it, or those who were most able to ask for it. Many of our findings, regarding the apparent equanimity of support received, are encouraging in this respect. Furthermore, the best single predictor of the amount of support that the current respondents received was the extent of disaster exposure, which is a reasonable indicator of need. As predicted in hypothesis 2, many of those who needed more support did on average appear to receive more support. It is also encouraging to observe that comfort with seeking help appeared unrelated to the extent of disaster exposure. This is a result which contrasts with that of Kaniasty and Norris (2000) and indicates that psychological responses to the Christchurch earthquakes may have been different than to Hurricane Katrina.

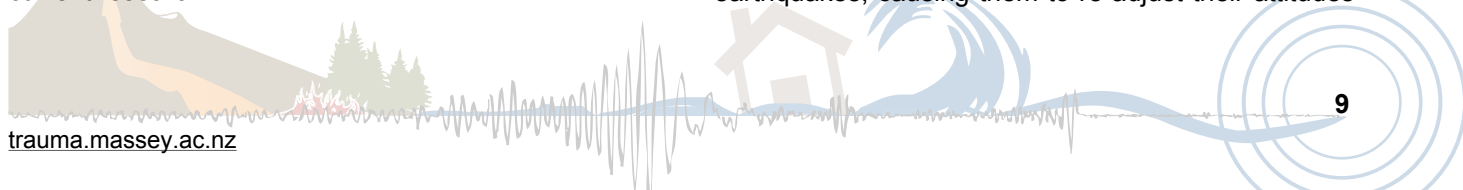
General hypothesis 2 had predicted that women, older people and those of higher SES would be more comfortable with seeking help and that they would also receive more support. These expectations were only partially confirmed by the results of analysis. Women and younger people did report receiving more support but there was no effect of age or gender on comfort with seeking help. Neither support actually received nor comfort in seeking support appeared related to SES. It is also worth noting that the overall amount of support received by respondents was moderately, rather than well, predicted by the combination of different variables examined. This indicates that there may be other important variables affecting the support people receive that were not measured or examined in the current research.

Differences between men and women were not large but women both reported more exposure to disaster and that they received somewhat commensurably more support. Interestingly, previous research (Kemp et al., 2011; Bonanno Brewin, Kaniasty & La Greca, 2010) has found that women tend both to see themselves as having greater exposure to disaster than men do and perhaps perceive themselves to be more in need of support.

Research and official attention have often focussed on the help that can be provided by official, outside sources, which are under the control of society in a way that the behaviour of families and friends is not. However, for most of our respondents these outside sources were not the most frequent sources of support. They were certainly not the most common sources of emotional support being sought. Perhaps it is family and friends who primarily support people in disasters. The strongest relationships between help-seeking comfort and support received appear to apply to emotional help from family and friends. In our study, emotional support was the support most frequently received. Previous research by Matsumoto et al. (2015) suggests that, for at least some post-disaster problems, this emotional support appears to be the most critical type of support.

We nonetheless need to remember that there were certainly disaster-affected people in the Christchurch community who were forced to rely on official agencies or on people they did not know well. Consider, for example, someone who had only recently moved to the city. Indeed the respondents in our study did report sometimes receiving emotional support from outsiders. Official agencies may also have an important role to play in facilitating support from friends and family, and the New Zealand Red Cross (2016) now offers a program on how to provide psychological support to trauma-affected family and friends.

Retrospective reporting by respondents forms a limitation of the current research which may have affected measures for disaster exposure, help-seeking comfort and received support. However, past research supports the reliability of the data collected in the current research project. An investigation into retrospective reporting of disaster exposure found retrospective reporting to be consistent up to 10 months following the event (Norris & Kaniasty, 1992). Funch and Marshall (1984) found that memories concerning major life events showed almost no decline over time. Respondents' attitudes towards help-seeking may have been influenced by the earthquakes, causing them to re-adjust their attitudes



to align with their most recent experiences of received support. However, if this re-adjustment did occur, then we arguably would not have observed the disconnect between type of support received and type of support that respondents were most comfortable with seeking. The current research has nonetheless considered a series of relatively distinct events. Both individuals and social groups learned and changed as the sequence of earthquakes progressed. We left respondents free to choose which of the major events their responses concerned, partly because individuals in different areas were affected more or less by different events and partly because we expected memories for the different experiences to combine to some extent. It is therefore not possible to determine developments in the way that people and organisations responded to the unfolding series of events from the current set of results.

It also needs to be stressed that the current results are for one particular set of disasters in one particular community. It is questionable whether these results could be generalised to, for example, the aftermath of a major flood in a developing country. This is particularly true as research on disasters in developing and developed countries appears to have, to some extent proceeded down separate paths. Perhaps this is because international aid is a more important ingredient in responding to and recovering from disasters in developing countries. That said, the present results do indicate that people's discomfort in seeking help may not always be a key constraint on receiving the support they need, particularly if they are seeking informational or material support.

Conclusion

We conducted a questionnaire survey of a sample of people affected by the Christchurch earthquakes, focussing on the support they reported receiving, the comfort they reported in seeking such support, and the relationship between them. We investigated not only overall support and comfort but also support and comfort from different sources (family, friends and outsiders) and comfort and support of different types (material, emotional and informational).

We found no strong relationship between people's overall comfort in seeking help and the support they reported receiving, although those who were more comfortable with receiving emotional help from friends and family appeared to receive more support from these sources. Instead, the support people received appeared

most strongly related to the extent of their exposure to a disaster. In general, family and friends were the most common sources of support of all kinds, and of emotional support in particular.

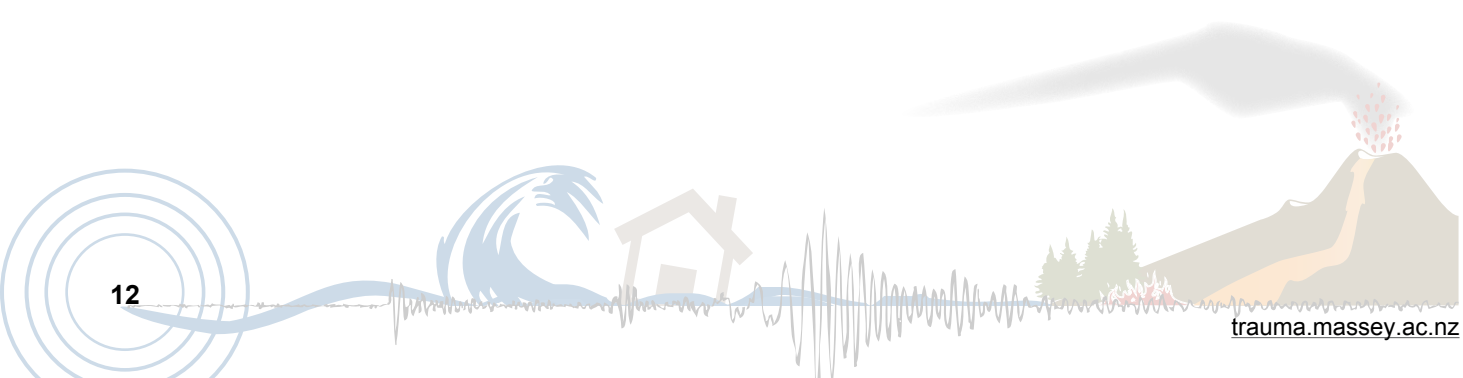
The current conclusions have practical implications. The results may be used as an indication for official agencies that overall they play a relatively minor role in supporting people in disasters, and that perhaps they might do best to encourage people to seek support from family and friends. For example, resources might be better used in running advertisements of the "it is OK to lean on your friends and family" kind, particularly regarding emotional support, than on employing people to provide this support. The results also suggest that if one wishes to target support according to different demographic categories, then support might be better directed at men and the elderly rather than poorer people.

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Appendix A: Questionnaire Instructions and Items

Disaster Exposure

We are interested in learning about the degree of support that you may have needed after any of the major earthquakes that occurred in Christchurch in the **21 months following 4 September 2010**. Please read each question carefully and answer them to the best of your ability. Most questions only require a yes or no answer but some require you to go into a little more detail. Remember all information you provide will be kept private and is completely anonymous.

Question 1. Did you or another household member receive physical injury (major/minor) as a direct result of any of the major earthquakes that have occurred in Christchurch following 4 September 2010?

Question 2. Did you ever feel like your life was in danger during any of the major earthquakes that have occurred in Christchurch in the 21 months following 4 September 2010?

Question 3. Did you receive any damage to your property (house, car, etc.) resulting from any of the major earthquakes that have occurred in Christchurch in the 21 months following 4 September 2010?

Question 4a. If you answered yes to question 3, what was the dollar value of the property damage you sustained as a result of the major earthquakes that have occurred in Christchurch in the 21 months following 4 September 2010?

Question 4b. If you answered yes to question 3, to what extent did you receive insurance coverage for your property damage which occurred as a result of the major earthquakes that have occurred in Christchurch in the 21 months following 4 September 2010? (This includes, both, house and contents insurance.)

Question 5. Did you receive any damage to property that had sentimental rather than financial value (family heirlooms, keepsakes, photographs, etc.) resulting from any of the major earthquakes that have occurred in Christchurch in the 21 months following 4 September 2010?

Question 6. Did you need to relocate (move house temporarily or permanently) after any of the major earthquakes that have occurred in Christchurch in the 21 months following 4 September 2010?

Question 7. Did you lose work/your job as a result of any of the major earthquakes that have occurred in Christchurch in the 21 months following 4 September 2010?

Question 7a. If you lost work/your job as a result of the earthquakes how long were you out of work for? (Hours, days, weeks, months?)

Help-Seeking Comfort

We are interested in learning about how comfortable you have felt about asking for help from different groups of people in the **21 months after the 4 September 2010** Christchurch earthquake. In the following questions: **'Family members'** refers to those that are connected to you by blood or marriage; **'Friends'** refers to the people you choose to spend time with that are not you family such as neighbours, co-workers, and acquaintances from churches or social organizations; and **'Outsiders'** refers to people who are outside your immediate support circle such as community leaders, voluntary organizations like St John, professional service providers like health care professionals or complete strangers. Please

read each item carefully and indicate how you feel about each statement by ticking one of the boxes. Remember all information you provide will be kept private and is completely anonymous.

Question 1. How comfortable do you feel requesting material aid from **family** if you are in need of such aid?

Question 2. How difficult is it for you to request emotional support from **family** if you have problems or are undergoing a crisis?

Question 3. How difficult is it for you to request advice or information from **family** when you need it?

Question 4. How comfortable do you feel requesting material aid from **friends** if you are in need of such aid?

Question 5. How difficult is it for you to request emotional support from **friends** if you have problems or are undergoing a crisis?

Question 6. How difficult is it for you to request advice or information from **friends** when you need it?

Question 7. How comfortable do you feel requesting material aid from **outsiders** if you are in need of such aid?

Question 8. How difficult is it for you to request emotional support from **outsiders** if you have problems or are undergoing a crisis?

Question 9. How difficult is it for you to request advice or information from **outsiders** when you need it?

Received Social Support

We are interested in learning about some of the ways that you feel people have helped you or tried to make life more pleasant for you in the **21 months following the 4 September 2010** Christchurch earthquake. Below you will find a list of activities that other people might have done for you, to you, or with you since this time. Please read each item carefully and indicate how often these activities have happened to you during this time. Remember all information that you provide will be kept private and is completely anonymous.

Please answer the following questions in regards to the help that you received from **family members** (those connected to you by blood or marriage).

Family Members:

Question 1. Gave me some information on how to do something (e.g., how to fill out appropriate forms, etc).

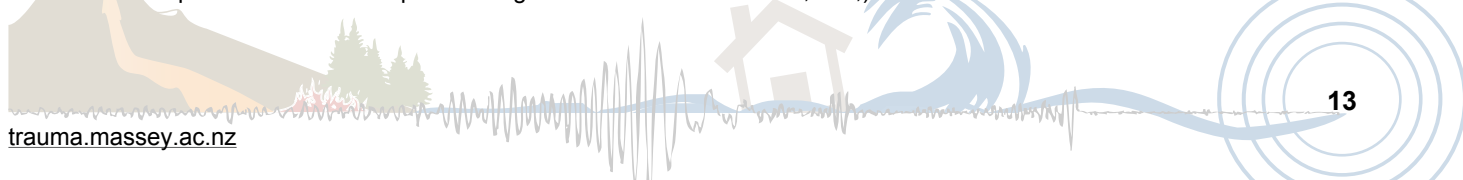
Question 2. Suggested some action that I should take. (e.g., You should contact a particular agency, you should secure that wall, etc.)

Question 3. Loaned or gave me money (\$25 or more).

Question 4. Comforted me by showing me some physical affection.

Question 5. Gave me some information to help me understand the situation I was in (e.g., why you had to boil your water, the reason the power went out, explained the EQC process, etc).

Question 6. Loaned or gave me something (a physical object other than money) that I needed (e.g., a bed, clothes, furniture, etc..).



Question 7. Let me know that he/she will always be around if I need assistance.

Question 8. Expressed interest and concern in my well-being.

Question 9. Provided me with a place to stay. (e.g., a spare room, a lounge, a holiday home, etc.)

Question 10. Provided me with food or drink.

Question 11. Loaned me tools/equipment that I needed (e.g., wheelbarrow, spade, camping/cooking equipment, etc).

Question 12. Helped me with cleaning and/or improving my property (e.g., clearing silt, securing walls, fixing cracks, etc).

The same 12 questions were asked for each of Friends and Outsiders.

Background Information

Finally, we are interested in gathering some demographic information in order to determine what your financial situation was before the first major earthquake occurred in Christchurch on **4 September 2010**.

Question 1. Are you male or female?

Question 2. What is your age?

Question 3. What was your occupation before the first major earthquake occurred in Christchurch on the 4 September 2010?

Question 4. Were you working at the occupation stated in question 3 for a minimum of 30 hours a week?

Question 5. What was your yearly income before the first major earthquake occurred in Christchurch on the 4 September 2010?

