Evaluation of the All Right? campaign's Facebook intervention post disaster in Canterbury, New Zealand

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Introduction

In September, 2010 an M7.1 earthquake struck 40 km west of Christchurch, the largest city in the

Canterbury region, on the east coast of New Zealand's South Island with a population of 386,000 at

that time. The earthquake caused widespread damage to infrastructure and buildings and was

followed by a prolonged series of aftershocks. In February 2011, a M6.3 aftershock with an epicentre

6 km from the Christchurch Central Business District devastated the city (Aydan, Ulusay, Hamada, &

Beetham, 2012). One hundred and eighty-five people died and thousands of people suffered

injuries. The New Zealand government declared a state of National Emergency for the first time in its

history. The Canterbury earthquakes are unique internationally in their intensity and in the repeated

damage they have caused in large urban and suburban communities, including the central business

district (McColl & Burkle, 2012).

Recovery from the September 2010 and February 2011 Canterbury earthquakes continues to be a

long process, with long-term impact on individual and community wellbeing in Canterbury. By mid-

2012, Community and Public Health (CPH, the Public Health division of the Canterbury District Health Board) and the Mental Health Foundation (MHF) of New Zealand had gained government funding and direction to develop and implement a wellbeing promotion campaign. The MHF of New Zealand is a charity that works towards creating a society free from discrimination, where all people enjoy positive mental health and wellbeing (Mental Health Foundation, 2018). Funding to enable the development of the campaign was provided by the Ministry of Social Development and the Ministry of Health. Ongoing funding for the campaign, inclusive of the Facebook page, is provided by the Ministry of Health. Evidence indicated that insufficient attention to population psychosocial recovery would lead to increasing numbers needing specialist care (Gluckman, 2011). To the best knowledge of the authors, the All Right? campaign is unique in promoting population-wide psychosocial wellbeing following a disaster [citation removed to ensure authors not identified].

The All Right? campaign strategies, content and delivery have targeted the population of post-disaster Christchurch and its surrounds. The messages are evidence based and draw on the 'Five ways to wellbeing' (Aked, Marks, Cordon, & Thompson, 2010) as a framework; as well as local research, stakeholder feedback, media specialist advice and ongoing evaluation. The 'Five ways to wellbeing' (Give, Connect, Take Notice, Keep Learning and Be Active) were developed in the United Kingdom by the New Economics Foundation as an evidence-based (Huppert, 2008; Lyubomirsky, Sheldon, & Schkade, 2005) generic set of actions with wide-ranging appeal to promote wellbeing in daily life. Campaign delivery has included street posters, billboards, advertisements in newspapers and on the back of buses. In addition to the campaign phases, social media has been a significant part of the campaign, with All Right? resources directing people to the All Right? Facebook page and webpage.

All Right? research (contracted to an external marketing research company) asked about the wellbeing needs of the target population. Soon after the launch of the All Right? campaign in late 2012 this research identified a need to have a conversation about wellbeing with the Christchurch population,

'in real time', including to acknowledge empathically how people feel after a disaster (Community and Public Health, 2013). Facebook was recognised as an appropriate vehicle for this, because of the ability for two-way dialogue with a broad audience.   The All Right? Facebook page is administered by the campaign team and is one element of the overall campaign. One measure of success of the All Right? Facebook page is its usage statistics. The peak of daily visits to the All Right? Facebook page occurred on 14 February 2016 with 14,162 direct page views and 236,956 impressions (posts viewed on wall feeds). This peak was on the day of an earthquake aftershock centred in Christchurch city, measuring 5.7 on the Richter scale (Geonet, 2016). This earthquake was the first large earthquake that Christchurch had experienced since May 2012. As of 20 June 2018 13,364 people have 'liked' the All Right? Facebook page and 13,140 have 'followed' it. Further measures of success of the All Right? Facebook page, including the page's impact, are explored in this paper.

A previous paper has focused on the evaluation of the overall All Right? campaign [citation removed to ensure authors not identified], and this paper focuses on the evaluation of the social media aspect of the campaign. Although social networking sites (SNS) have been accepted as providing potential platforms for health promotion (Lupton, 2014), there has been little exploration of what is required for SNS to be effective (McPhail-Bell et al., 2017). Research is beginning to emerge about the use of SNS to deliver wellbeing campaigns (Dobrean & Păsărelu 2016). This paper highlights the success factors and challenges from the innovative use of SNS post disaster in the context of a trusted wellbeing campaign.

Background

General need for a wellbeing campaign

Disasters require public health responses that involve multiple levels of intervention, including population-wide mental health promotion, and treatment for a few (Bonanno, Brewin, Kaniasty, & La Greca, 2010; Norris, Friedman, & Watson, 2002). Psychosocial interventions should be tangible

and informative, including providing psychosocial support resources community-wide (Bonanno et al., 2010). It is important that activities which provide mental health promotion for the affected population match the cultural context of the group. This is best achieved by involving the community in evaluating its own need and determining which actions are most suitable (Norris et al., 2002). To be effective, mental health promotion must emphasise empowerment and support and build on strengths, capabilities and self-sufficiency. Facilitation of community empowerment processes involves, in part, assessing and/or developing the social and individual competencies that contribute to people being empowered and being able to identify and represent their needs during the response and recovery phases of disaster (Norris et al., 2002). Essential to assisting people and communities to regain a sense of control post disaster, is providing information that helps people to identify their strengths and how to use them to take action to assist their own and others' recovery (Mooney et al., 2011). Focusing only on those who are experiencing difficulties does not necessarily help to reduce the prevalence of vulnerability for the population as a whole, as the causes of problems and inequalities remain the same (Huppert, Baylis, & Keverne, 2005).

Long-term consequences of disasters may include disputes associated with insurance resolution and stress from repairing or rebuilding homes, which can add to people's distress. These 'secondary stressors' can have a direct impact on individual and community resilience and can delay people's recovery (Lock et al., 2012). Secondary stressors are circumstances, events or policies that are indirectly related to the primary stressor (the earthquake sequence) (Department of Health, 2009). In Canterbury many people remain affected by the earthquakes and the secondary stressors that have emerged (Canterbury District Health Board, 2016). The Canterbury Wellbeing Survey in June 2017 (Canterbury District Health Board, 2017) reported that over two thirds of (71%) greater Christchurch residents have experienced stress at least sometimes in the past 12 months that has had a negative effect on them (this proportion has been showing a statistically significant downward trend since 2012). Survey respondents in June 2017 were more likely to be stressed, have lower quality of life and wellbeing, and report lower self-rated health if they had unresolved claims with

private insurers and/or the Earthquake Commission (a crown entity providing natural disaster insurance for residential property).

Use of social networking sites (SNS) in health promotion

The use of technologies to encourage people to engage in 'healthy behaviours' has become an accepted part of health promotion (Lupton, 2014). Social networking sites (SNS), such as Facebook, are a type of social media, involving internet applications. SNS are defined as web-based services that allow individuals to construct a public or semi-public profile, articulate a list of other users with whom they share a connection, and make visible their social networks (Ellison, Steinfield, & Lampe, 2007).

SNS allow health promotion to reach a broad audience, but unlike one-way mass media approaches (such as newspapers, posters and billboards), SNS provide the ability for two-way dialogue. SNS have the ability to deliver information to 'where the people are', which can have two meanings (1) reducing geographical barriers/ increasing convenience (McPhail-Bell et al., 2017) and (2) a large percent of the population are using social media (Nguyen et al., 2013).

There has been little exploration of what is required for SNS to be effective (McPhail-Bell et al., 2017). A study of a health-promoting SNS targeted at Indigenous Australians concluded that there were five principles for the success of their health promoting SNS. The principles were: create a dialogue, build community online and offline, incentivise healthy online engagement, celebrate Indigenous identity and culture, and prioritise partnerships. SNS are increasingly being used for mental health promotion (Dobrean & Păsărelu 2016; Hui, Wong, & Fu, 2015) and research is starting to emerge about the use of SNS to deliver wellbeing campaigns (Dobrean & Păsărelu 2016). One study showed that a depression awareness campaign delivered via Facebook was associated with enhanced mental health literacy for those who visited the Facebook page (Hui et al., 2015). This online randomised controlled study recruited participants (n=199) through Facebook advertising.

The authors concluded that it is important for future studies to take advantage of the popularity of online social media to conduct evaluative research on mental health promotion campaigns (Hui et al., 2015).

Social media in mental health promotion and support post disaster

The use of SNS to provide disaster mental health promotion and support is emergent. Ways that social media can provide mental health support post disaster include: connecting people with other individuals who experienced the incident (Dutta-Bergman, 2006; Spialek, Czlapinski, & Houston, 2016), providing a mechanism for social support and to express emotions about events (Taylor, Raphael, Howell, & Wells, 2012); and providing and receiving information about disaster and disaster recovery including telling and hearing stories about the disaster (Tandoc Jr & Takahashi, 2017).

Community connection and engagement via social media (Dutta-Bergman, 2006; Spialek et al., 2016) can act as psychological first aid (Taylor et al., 2012). Psychological first aid in response to a disaster aims to reduce initial distress, meet current needs, promote flexible coping, and encourage adjustment (Burke & Richardson, 2010). Community connection via social media can also support personal resilience (Veer, Ozanne, & Hall, 2016) and community resilience (Taylor et al., 2012; Veer, Ozanne, & Hall, 2016). Community connection through social media can facilitate 'collective coping' (Tandoc Jr & Takahashi, 2017), which is defined as focusing on how individuals cope with a stressful event by making sense of their experiences with a network of interpersonal relationships (Lyons, Mickelson, Sullivan, & Coyne, 1998). The collective coping strategies facilitated by Facebook include provision of ways for people to participate in the 'social construction of their experience' and acting as a venue for survivors to 'manage their feelings and memories'(Tandoc Jr & Takahashi, 2017). Christchurch-based research (Veer et al., 2016) has also explored the use of the internet as a means to access disaster-related information as well as bring a community closer together through residents sharing their experiences online. This research took a netnographic approach to collect data including from Twitter and Facebook, primarily through observation of posts. The authors

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argued that the internet not only provided a major source of practical information, but also may have enabled a bond to others in the city and beyond, and in so doing contributed to increased personal and community resilience.

The relationship between communication infrastructure and community engagement has been studied following disaster (Dutta-Bergman, 2006; Spialek et al., 2016). Regardless of whether a disaster was natural or man-made, integration in both online and offline communication infrastructures resulted in higher levels of community engagement. For example, following the September 11, 2001 terrorist attacks, those engaged in online conversation about the attacks were more likely to attend community meetings in order to talk about the attacks in person than those who were not involved online (Dutta-Bergman, 2006). Another study following a series of tornadoes in central Illinois concluded that individuals' use of Facebook and Twitter to talk about the tornado, positively predicted community connection (Spialek et al., 2016).

This research aims to explore the extent to which people interacted with the All Right? Facebook page and the reasons for this interaction. In addition it assesses the impact that the All Right? Facebook page had on those people who were using it.

Methods

Evaluation objectives were primarily focused on exploring the ways that people interact with the social media component of the All Right? campaign and the reason for this interaction, and assessing the impact of the All Right? social media component on those using it. The use of social media by the All Right? campaign was evaluated using both qualitative and quantitative methods in order to draw on the strengths of both and in recognition that the use of either approach on its own would have been inadequate to address the complexity of the evaluation questions (J. Creswell, 2009; J. Creswell & Plano Clark, 2011).

Key stakeholders were interviewed in August and September 2016 (n=3) to gather data on the implementation and development of the social media component of the All Right? campaign. The key stakeholders were identified by All Right? staff. The three stakeholders were the staff responsible for developing and implementing the All Right? Facebook page. The key stakeholders interviewed were two communication advisors and one health promoter (all working for the Canterbury District Health Board).

Those accessing the All Right? Facebook page were invited to participate in an online survey . The survey was open for the first week of December 2016. The survey included questions about the impact of All Right? Facebook page and demographic details of respondents. At the end of the survey, participants were asked if they would be willing to participate in a telephone interview, to gather more in-depth information.

Of the 81 participants in the online survey who indicated they were willing to be interviewed, 16 completed in-depth, semi-structured telephone interviews. A purposive sampling strategy was used to select 16 interviewees who were broadly representative of the target population in terms of age and gender. The telephone interviews were completed between 6 February 2017 and 28 March 2017. Interviews took place in the context of the six year anniversary of the 22 February 2011 Christchurch earthquake, the 2017 Christchurch Port Hills fires (starting 13 February 2017), and the 2016 North Canterbury earthquake (14 November 2016). The 2017 Port Hills fires were wildfires in the Port Hills of Christchurch. Nine houses were destroyed by the fires, and hundreds of residents were evacuated. A helicopter crashed helping to fight the fires, causing the death of the pilot. The 2016 North Canterbury earthquake was a magnitude 7.8 earthquake, which occurred two minutes after midnight on 14 November 2016 (The Press, 14 November 2016). The earthquake resulted in two deaths and extensive damage in an area 202 km north of Christchurch – including closure of the main state highway until late 2017.

Semi-structured interviews were chosen for the interviews with key stakeholders and the follow up telephone interviews because they work well with an inductive approach when new and unknown information is being sought. Such interviews also make use of the flexibility of the qualitative research process as understandings that are developed early on can then be brought into subsequent interviews, thereby expanding detail as new issues come to light (Green & Thorogood, 2014). The semi-structured interviews used open-ended questions based on areas of interest derived from the literature. The data were coded by the lead researcher who had no role in the development of the campaign beyond evaluation recommendations. The data were analysed using a systematic iterative thematic approach to identify recurring patterns (Green & Thorogood, 2014; Liamputtong, 2013; Pope, Ziebland, & Mays, 2000).

This evaluation was reviewed against the New Zealand Health and Disability Ethics Committees Standard Operating Procedures (Health and Disability Ethics Committees, 2014) and did not meet the criteria for requiring review by a New Zealand Health and Disability Ethics Committees, because it was categorised as an audit or related activity and did not have any of the features identified in the Operating Procedures as having significant potential to cause harm.

Results

Online survey

Over two hundred people (n=212) responded to an invitation to complete an online survey from a link on the All Right? Facebook page. This survey link was posted on 6 December 2016 and was open for participation until 14 December 2016. The survey was designed to elicit opinions about the All Right? campaign. Although these results are not representative of the overall population, they give an indication of why people visit and interact with the All Right? Facebook page.

The largest proportion of survey respondents lived in Christchurch (87%, n=175). Almost all respondents lived in either Christchurch or Greater Christchurch, which comprises Christchurch city

and the neighbouring Selwyn and Waimakariri districts (99%, n=198). Two respondents lived in

Auckland and one respondent lived in Wellington. The majority of respondents (90%, n=183)

indicated that they had experienced the Canterbury earthquakes. Over ninety percent of

respondents were female (92%, n=187). There were 15 male respondents (7%, n=15) and two who

identified their gender as other (1%, n=2). The largest proportion of respondents was aged 30-44

years old (43%, 86).

Table 1. The demographic characteristics of respondents

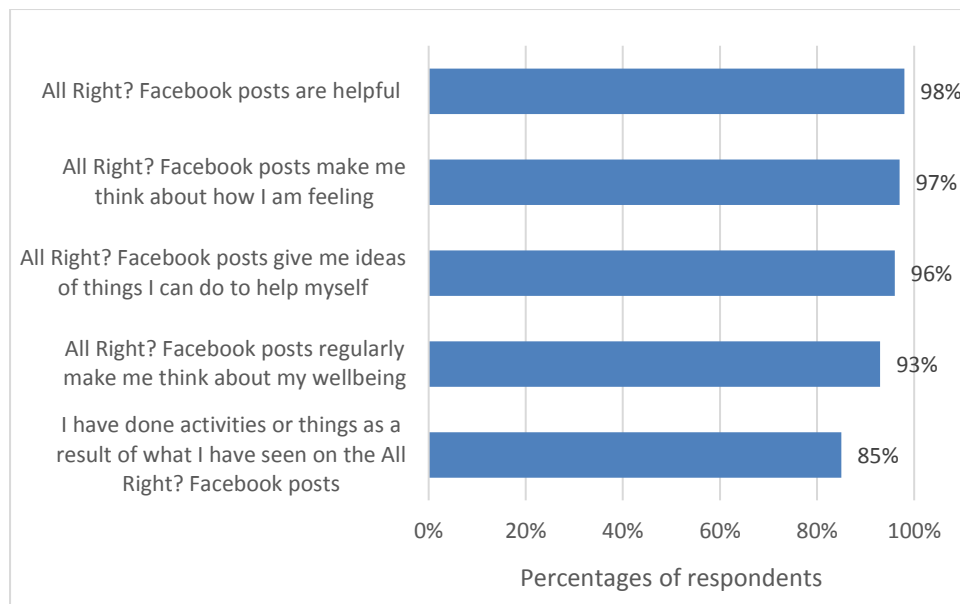|	(n)	(%)
Gender		
Female	187	92
Male	15	7
Gender diverse	2	1
Age		
15-29	49	24
30-44	86	43
45-59	55	27
60 and over	12	6
Experienced the Christchurch earthquakes		
Yes	183	90
No	21	10
City live in		
Christchurch	175	87
greater Christchurch	23	11
Wellington	1	1
Auckland	2	1

Of the 212 respondents, almost all reported that they had 'liked' the All Right? Facebook page (97%, n=205). Over four fifths (85%, n=178) of respondents reported that they had liked or posted a comment on an All Right? Facebook post at least once.

Table 2. The proportion of the respondents who had engaged with the All Right? Facebook page

	(n)	(%)
Have you ever liked or posted a comment on an All Right? Facebook post?		
Yes		
No	178	85
	32	15
If yes, have you…? (please tick all that apply)		
'Liked' a post		
	176	97
Made a comment		
	83	46
Entered a competition		
	63	35
Shared a post		
	115	63
Posted a photo		
	12	7
Tagged a friend		
	34	19

Almost all respondents agreed that the All Right? Facebook posts: were helpful (98%, n=205); made them think about how they were feeling (97%, n=203); gave them ideas of things they could do to help themselves (96%, n=200); and regularly made them think about their wellbeing (93%, n=196). Over eighty percent (85%, n=176) of respondents had done activities or things as a result of what they had seen on the All Right? Facebook page.

Figure 1. The proportion of respondents who agree with statements relating to All Right? Facebook posts

Respondents were asked *Why do you follow the All Right? Facebook page?* The most frequent response (80%, n=158) was that the messages/posts were helpful. Responses to the question *What do you like best about the All Right? Facebook page?* included: the tone of the page, including that the tone was consistent, cheerful, fun, caring and encouraging. Respondents also liked that the page did not appear judgemental; the helpful tips and advice that the All Right? Facebook page provided, which helped them to cope following the earthquakes; that posts on the All Right? Facebook page reassured them that what they were feeling was a normal reaction to the earthquakes*;* that the posts encourage people to think about their wellbeing; posts about events that are happening in Canterbury; and that the page opens up a conversation about mental health.

Respondents reported that knowing their reaction to the earthquakes was normal improved their wellbeing; *'That the struggle we face is real… and All Right? validates that.'*; the timing of posts by All Right? especially immediately after earthquakes was valued, *'I love seeing the All Right? posts after an earthquake or aftershock, makes me feel safe.'*; that the All Right? Facebook page promoted a sense of community, *'…seeing comments from others so I am not coping through this alone. All*

Right? facilitates this beautifully.'; that the All Right? Facebook was viewed as being like a friend that was always there for them, *'You are a virtual friend there whenever I need you.'* Respondents reported that, *'this makes me feel less lonely'*; that the Facebook page improved their wellbeing. Some examples of how this was expressed are *'the posts make me feel good again.'; 'The posts bring me comfort.'; 'Posts are uplifting.'; 'The simple messages make me feel better about myself.'*

Key stakeholder interviews

Key stakeholders were interviewed face-to-face to identify the success factors for the development and implementation of the All Right? Facebook page. The key stakeholders were identified by the All Right? team as the staff responsible for developing and implementing the All Right? Facebook page. All three key stakeholders worked for the Canterbury District Health Board.

Interviews with key stakeholders identified a number of success factors for developing and implementing a social networking site post disaster. Success factors included making relevant regular posts, with a focus on issues that affect everyone in Canterbury following the earthquakes. This included the timeliness of posts. Posts immediately following aftershocks that occurred during the night generated a high level of engagement. It was noted that All Right? was unique, as a government-funded Facebook page, in doing this, *'I've had times when I've been posting in the middle of the night around aftershocks, and that's when you really open the conversation…'*.

A further success factor was that local research by All Right? informed the use of appropriate language for translating evidence-based wellbeing messages into the local setting . Current topics of conversation in Canterbury were analysed and adapted to discuss wellbeing, '*It's about being aware of what people are talking about.'* An example of this was prior to the screening on national television of a documentary about the immediate impact of the February earthquake, the campaign worked with the producers and television company to ensure that appropriate warnings were screened prior to and post-broadcast and helplines numbers were well advertised. The conversation on the All Right? Facebook page regarding this documentary reached over eighty thousand people.

Interviewees also recognised the need for the Facebook page to be a consistent, trusted voice of wellbeing. This was achieved in part by balancing wellbeing facts and tips with content that was relevant to the Canterbury population, such as information about aftershocks or major local events. Other success factors included*:* engagement and collaboration with other relevant social media pages; the Facebook page being governed by the strategic direction and values of the campaign*;* and the partnership of communications skills with public health, including the importance of keeping the campaign grounded in health promotion theory, rather than simply good marketing.

Follow up interviews with All Right? Facebook users

Of the 81 participants in the online survey who indicated they were willing to be interviewed, 16 completed in-depth, semi-structured telephone interviews.   Questions focused on understanding participants' engagement with the All Right? Facebook page. In addition participants were asked to describe the All Right? Facebook posts that were most helpful.

Engagement with the All Right? Facebook page

The motivation to visit the All Right? Facebook page was explored in follow up interviews. Four common themes emerged as motivating factors for people to engage with the All Right? Facebook page: when they were feeling low and struggling to cope; to find out more about the All Right? campaign; for trusted and consistent information on wellbeing post disaster; and to feel part of a collective experience.

All Right? social media was viewed by some as a tool that could uplift them and help them get through difficult times:

> *..depending on how busy stuff is but I utilise [All Right? social media], and it depends on how life is at the moment. Sometimes when life can be more difficult than others, it's looking for things there that can help uplift or help focus or get through.* (Participant 5, male 30-44 years old)

I know the messages that All Right? send out and I was feeling a bit low at that time and needed something to get my mind reactivated again. That's why I went on it [All Right? Facebook page] originally… (Participant 4, female 45-59 years old)

All Right? was a good lifeboat to grab on to… (Participant 14, male 30-44 years old)

Some interviewees described the All Right? Facebook page as their 'go to' place when they were not coping after the earthquakes:

..what motivated me to go on the All Right? Facebook page? I think it was times when I wasn't coping very well myself and having seen the poster advertisements in the bus stops and on the Facebook feeds… it prompted me to have a close look at those times when I wasn't coping.'   (Participant 9, female 30-44 years old)

The All Right? Facebook page was viewed as providing consistent information on wellbeing, which users trusted:

There's the post yesterday about children … there have been problems with settling children with all the different bits and pieces that are going on, ongoing earthquakes, fires… basic points on what to do to keep kids in the moment and not worry. I find that one really useful… it's consistent information.' (Participant 8, female 60+ years old)

A motivating factor for visiting the All Right? Facebook page included wanting information on wellbeing post disaster, in particular to know if what they were feeling was normal. A number of interviewees identified that they were motivated to visit the All Right? page '*to reassure myself that it was OK to feel the way I was feeling'*.

Interviewees reported that understanding what they were feeling was normal helped them to cope. This included when people identified themselves as having been diagnosed with a mental illness, so that they could distinguish between being or becoming unwell and a normal reaction post disaster. It appeared widely recognised that All Right? supported mental health:

For me particularly, seeing the All Right? campaign and realising that other people are feeling the same way that I am.. it is actually really helpful. It makes me feel like.. this is just a normal reaction to the earthquakes. So that has really helped me. (Participant 2, female 45-59 years old)

A number of interviewees reported that they recognised that in Canterbury, *'we're all united in one issue'.* Other interviewees commented that not only have the earthquakes been a shared Canterbury experience, there has also been working through-related challenges such as insurance issues. It was considered that the All Right? Facebook page helped to facilitate the shared collective experience and resulted in people feeling less alone:

I don't think we're going to be over the difficult time while earthquakes are still a fairly regular event in Canterbury and as long as those things keep happening, it's just that sense of hey we're having a shared experience, you're not out there struggling with your emotions or your insurances on your own, it's a shared collective experience that links us in and acknowledgement that it's still tough… We've got insurance issues and when we're still trying to resolve those… we're still nowhere nearly through this process.. (Participant 2, female 45-59 years old)

Posts that were most helpful

Interviewees were asked to describe the Facebook posts that helped them most. These included posts immediately following aftershocks and advice and tools to improve wellbeing. Posts immediately after each of the earthquakes were viewed as being particularly helpful, for example 'Did you feel that one Canterbury? I hope you are okay'. There was agreement from interviewees that posts asking if people were All Right? made them feel like they were all in this together and that most importantly someone was caring about them, *'…it's just that question, if you're all right,*

somebody's actually interested enough to ask me… it's the fact that someone cares enough to do

that is sometimes just all I need.'

> *..All Right? posts where they just ask if you're all right, and it's like well actually no I'm not*
>
> *but thanks for asking. Somebody's asked. Yeah, it doesn't matter who it is, somebody's just*
>
> *asked if I'm OK and I can say to myself well actually no I'm not. And then I'm usually fine.*
>
> (Participant 8, female 60+ years old)

A number of interviewees reported that the All Right? posts after earthquakes, *'..was how I coped.'* Interviews revealed that posts that were especially valued were those with advice and tips to improve wellbeing. These posts were viewed as making a difference to wellbeing, *'All Right? was actually providing some advice and tools and resources to actually make that difference.'*

Although general information posts were viewed as helpful, for example information relating to the Port Hills fires, it was the wellbeing tips that were most appreciated:

> *'that more informational side is helpful right at the moment but generally speaking the ones*
>
> *that I've found most helpful have been little tips and suggestions, with general wellbeing in*
>
> *mind.'* (Participant 3, male 30-44 years old)

Identifying the success factors of the All Right? Facebook page

Follow up interviews also explored the success factors for the All Right? Facebook page. A number of these success factors mirror those of the campaign itself, such as All Right? Facebook not being presented as a government message. Success factors included: timeliness of posts (for example, immediately after each earthquake/aftershock); population-based messages that provide a common language to talk about wellbeing; All Right? acknowledging that there are ongoing secondary stressors; that All Right? is a trusted voice around wellbeing in Canterbury; that All Right? Facebook is somewhere to go that is accessible; and the constant reminders on tips to improve your wellbeing.

The timing of posts immediately after each earthquake was viewed as a success factor, interviewees reported getting reassuring posts immediately following aftershocks, '…*and it's like having a friend tap you on the shoulder and say it's all right.'*

All Right? was identified as a trusted voice around post-earthquake wellbeing in Canterbury. Interviews revealed that respondents viewed the All Right? Facebook page as an accessible place to go that had trusted information about wellbeing:

> *…it's a really good way of reaching people especially, let's face it people after the quakes, the phone, you couldn't ring anybody but you could still get Facebook… it is bizarre but that's the way it's going but [social media] was still working when you couldn't phone your Mum down the road…* (Participant 13, female 60+ years old)

A number of respondents commented that the *'constant reminders in your face',* to encourage a more positive outlook were helpful:

> *..my outlook has changed, not just because of this campaign but I'd say it definitely helped because you see it in front of you and think, yeah actually yeah, I will do. 'Cos the constant reminders in your face. It's good on that score.* (Participant 14, male 30-44 years old)

The advantages of the social component of the All Right? campaign were explored in follow up interviews. A number of key themes were identified regarding what was particularly useful about the social media component of the All Right? campaign. These themes included: timing of posts and engaging people in *'real time'* and *'where they are'.*

The ability of social media to provide wellbeing tips that were immediately accessible was viewed as key to the success of the All Right? Facebook page in increasing wellbeing:

> *I don't know what other tool you could have used. Social media is immediate.. I might leave a comment and a few minutes later there'd be the reply. It's an instant update, I guess…*

knowing that it was so fast and in a time when events were moving quickly and the power

might be out in one area and then out in the next and then coming back on somewhere else

and who felt that aftershock, and as things happened people could say, this is what is

happening where I am and people were able to respond to that or identify and engage with…

(Participant 6, male 15-29 years old)

A number of interviewees commented that All Right? Facebook page was useful because it was engaging people where they are. These interviewees believed that the majority of people are on Facebook especially immediately following earthquakes:

I think that what social media allows is conversation and that is what is vital for All Right?

is… a place where people can have a conversation is what the aspect of social is, because to

be honest everyone's on it and everyone has an opinion but to have a place where people

feel comfortable to say their opinions, especially in times of stress and when they need

advice, is a real asset for the community. (Participant 15, female 15-29 years old)

The relationship between interaction with the All Right? Facebook page and changed behaviour was explored in the follow up interviews. Some interviewees reported that they had changed a behaviour as a result of the All Right? Facebook page. Changed behaviour included, for example, taking action as a result of All Right? advice and tips in line with the five ways to wellbeing; an increase in positive thinking; and encouraging conversation about wellbeing, *'it's actionable points that you can use throughout the day.'* Interviewees reported, for example, increasing exercise, noticing the stars, catching up with friends, or sharing a meal with friends and family:

All Right? helps to keep wellbeing in the forefront of your mind... rather than plonking the

kids at the dining table and me going to sit in front of the TV. I'll switch the telly off and we'll

sit down, right how's your day been? (Participant 14, male 30-44 years old)

One interviewee commented that he felt that the All Right? Facebook page was social media helping him to engage in life outside of social media, which helped him to improve his wellbeing:

> *…for me [the All Right? Facebook page] has been helpful because that was a place that I was engaged anyway, so it's almost been using social media to help me remember not to use social media. Sometimes it's been, hey aren't the leaves in Hagley Park awesome at the moment and…actually why am I stuck here on a computer?... All Right? are using social media as a tool to help people engage in life outside of social media and I think that's really helpful.* (Participant 3, male 30-44 years old)

Some commented that the All Right? Facebook page had encouraged or increased positive thinking, '*..the posts helped me with a positive thought. I was in the middle of a whole lot of negative thoughts. Yeah, it helped me a few times to change my mindset and look at something in a different way.*'

The Facebook page was viewed as a tool to open a conversation post disaster about wellbeing:

> *What it did do... was that when you didn't feel great and somebody asked how you were, and then you said I'm fine, I'm fine, hey by the way have you seen All Right? And if they had or even if they hadn't, it was a tool that people could use to actually broach the conversation... if that person seemed receptive to perhaps going a wee bit deeper, then you could say well actually this is what's happening and this is how I'm feeling at the moment.* (Participant 6, male 15-29 years old)

Although not asked, a number of interviewees revealed that they had been diagnosed with a mental illness. It was reported that All Right? was a useful tool to, '*..make sure I'm doing all of the things that I need to do to keep well.*'

A number of interviewees reported that the All Right? Facebook posts resulted in improved wellbeing for them.   The timing of the posts was reported by some as just when they needed them, *'..that is what I need right now.'*

> *...from what All Right? was doing and how I engaged with All Right?, if there wasn't a Facebook page I don't know where I would have gone. I don't know what I would have done... it has made a difference to my health and wellbeing, without a doubt.* (Participant 6, male 15-29 years old)

A number of the male interviewees reported an element of surprise that All Right? had improved their wellbeing, *'I'm a cynical 48 year old bloke, you get a lot of waste with the council and government spending but All Right? was giving a good message and I liked it.'*

> *'All Right? has worked very well for me, yeah I'm surprised too.'* (Participant 10, male 45-59 years old)

> *All Right? posters asked questions and prompted action but at the same time I felt a little bit uplifted every time. And then I found out that there was an All Right? Facebook page and I don't need to wait until I happen by one when I'm driving or walking around the place, that if I can get a wee ray of sunshine, a wee bit of brightness whenever I open up my phone, I like feeling good, I'll subscribe to that.* (Participant 6, male 15-29 years old)

The key challenge identified by interviewees was ensuring that the social media component remains part of a wider campaign. One reason for this was their concern that access to the internet was a barrier for some to the All Right? Facebook page.

> *I think it is useful but you still only get certain demographics. I'm certainly aware of family members of mine that aren't on Facebook… it comes down to multiple things, the choice of not wanting to use the social media versus actually not being able to access it due to*

finances.. I can't access Facebook from my work computer so that's another kind of barrier to

it. (Participant 1, female 30-44 years old)

Discussion

This study indicated that social media can be an effective tool, post disaster, in the wider public health toolkit. Social media was not only able to bring people to a collective forum but also bring them closer together by making individuals feel part of a wider social network. This resonates with previous work on disaster recovery that show the importance of community and connectivity (S. Baker, 2009; S. Baker & Hill, 2013; Tandoc Jr & Takahashi, 2017). Many uses of social media post disaster have been documented, including the provision of disaster response information. Many services are needed in order to recover from disaster and there is growing recognition of the importance of SNS (Dufty, 2012; Merchant, Elmer, & Lurie, 2011; Yates & Paquette, 2010). SNS have been used in disasters for relief coordination (Merchant et al., 2011; Sutton, 2012); keeping in touch with others (Kaufmann, 2015; Tagliacozzo & Arcidiacono, 2015); discussing events and consequences (Al-Saggaf & Simmons, 2015; Kaufmann, 2015); and seeking and giving advice (Ahmed, 2013; Kaewkitiponga, Chen, & Racthama, 2016).

The features of social media platforms define which tasks can be addressed by collective behaviour in disasters. Facebook is preferred for functions that require longer text messages and active communication. The outstanding feature of Facebook in the post disaster context is that it allows users to connect with each other, which facilitates establishing and preserving relationships (Wilson, Gosling, & Graham, 2012). Twitter use has been most extensively researched post disaster, possibly because of the ease of extracting information in comparison to Facebook where a search option is not available. It has been proposed that this may cause a 'selection bias' in the research, therefore not representing the population's true social media behaviour post disaster (Simon, Goldberg, & Adini, 2015).

In line with previous work, there are indications that participation in SNS post disaster can result in some behaviour change and also improve wellbeing (Masedu et al., 2014) . There is some evidence that social media use (Facebook) can have a positive impact on mental health outcomes in years following a disaster (Masedu et al., 2014). For example research following the 2009 L'Aquila earthquake was carried out in the adult population (n=890) investigating the relationship between the use of Facebook post disaster and the impact on mental health. Mental health was assessed using the Screening Questionnaire for Disaster Mental Health. This study concluded that social network use among 25-54 year olds had a positive impact on mental health outcomes in the years following a disaster (Masedu et al., 2014).

Although the reach of SNS is limited by internet access, the number of people with internet access continues to grow internationally (The World Bank, 2017). Rising rates of ownership of smartphones (Research New Zealand, 2015) will continue to reduce potential inequalities of promoting health through SNSs. There has been a rapid increase in access to smart phones (Research New Zealand, 2015). Ownership of smartphones differs significantly by age, with smartphone ownership being highest among 18-34 year olds (91%). Almost four fifths (78%) of 35-54 year olds have a smartphone. Smartphone ownership decreases to 45% for those aged 55 years old and over (Research New Zealand, 2015).   The increasing use of smart phones has been identified as an important factor enabling access to social media, most critically during and after disasters when landlines are often affected but mobile networks remain working (Dufty, 2012; White, 2012). It is argued that the ability of smart phones to not only provide access to public safety-related information but also to enable connectedness, both to family and friends and to the wider community, has provided reassurance, support and routes to assistance (Taylor et al., 2012).

Some methodological limitations should be noted. Survey respondents are self-selected so not necessarily representative of all users of Facebook or all users of the All Right? Facebook page. Quantitative data relied on self-report of impact of the campaign. Similarly, the qualitative data

produced in-depth information from a small number of people in a limited area of New Zealand, so does not claim to be generalisable more broadly. In addition the data is gathered around a specific trauma event that may not be representative of other trauma events.

Conclusion

There is reason for optimism regarding the careful use of social media as a component of a wellbeing campaign, post-disaster. The All Right? Facebook page was able to bring people to a collective forum and individuals felt part of a wider social network. Additional motivating factors for people to engage with All Right? Facebook included for trusted and consistent information on wellbeing post-disaster, in particular for wellbeing tips and reassurance that how they were feeling was normal. There were indications that participation in social media post-disaster can result in some behaviour change. The overall success of the All Right? Facebook page was reliant on being part of a trusted population-wide wellbeing campaign. There was a concern that the social media component should remain part of a wider campaign, primarily to ensure that all of the affected population continued to have access to the benefits of the All Right? campaign.

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