



## ***The Importance of Social Connection for Cybervictims: How Connectedness and Technology Could Promote Mental Health and Wellbeing in Young People***

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A substantial amount of research has documented the negative impact technology has on young people's lives: particularly cyberbullying and the negative mental health outcomes associated with it. Research examining how technology could promote mental health and wellbeing in young people however, needs further investigation. This paper reports on a mixed methods study, which involved quantitative online surveys (N=229), and face to face interviews (N=30), across eight South Australian high schools. This paper will only address the quantitative results. The study involved young people aged 12 to 17 years. This paper discusses the importance of social connectedness and the use of technology to promote social connectedness among young people. A key finding was that young people who were more socially connected, were more likely to cope actively in response to frequent cyber victimisation. They were more likely to seek help and have positive mental health as a consequence. Findings from this study could aid policy development, social media campaigns, and the education of health professionals, teachers, and parents about the benefits of technology and the importance of staying connected.

**Keywords:** Social connectedness, technology, cyberbullying, wellbeing, mental health

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### **Introduction**

Young people are spending considerable time online, and limited research currently exists which examines how technology could be used to promote feelings of social connectedness, and other socio-emotional benefits. This

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paper explores the role that social connectedness may play in how young people cope with cybervictimisation, and how this may influence help seeking intentions and mental health outcomes.

Research shows that internet use by young people is increasing, with statistics reported in 2012 ranging from 90 percent of young Australians accessing the internet daily (Green, Brady, Ólafsson, Hartley & Lumby, 2012), to 99 percent accessing the internet daily in 2013 (Burns et al., 2013). In 2015, one third of all internet users are children under 18 years of age (Livingstone, Carr & Byrne, 2015). Comparatively, international research reported in 2011 found that 60 percent of young Europeans accessed the internet daily, and 59 percent have a social networking profile (Livingstone, Haddon, Görzig & Ólafsson, 2011). Whilst there has been increasing use by older generations, young people are the most likely to use social media, with 90 percent of young adults aged between 18 and 29 using it, and 24 percent of teens going online generally ‘almost constantly’ (Pew Research Centre, 2015a, 2015b).

The notion of social connectedness refers to one’s ability to feel comfortable, confident and have a sense of belonging within a larger social context than family or friends (Lee & Robbins, 1995). If a person is struggling to find a sense of connectedness, they may feel that they cannot relate to the people around them, they may struggle to develop relationships or to understand their role in the world, and feel isolated as a result (Lee & Robbins, 1995). These feelings of isolation can then lead to other consequences such as low self-esteem, distancing one’s self from society, a lack of trust, and also the absence of a sense of belongingness and feelings of loneliness (Lee & Robbins, 1995). Being socially connected has been found to reduce levels of depression and emotional/behavioural difficulties (Fraser & Pakenham, 2009).

Social networking sites, which can be defined as ‘mediated online environments where people communicate with existing relationships, form new ones, cement ties with others, and re-establish old friendships’ (Spears, Kofoed, Bartolo, Palermiti & Costabile, 2012, p. 9) are immensely popular with young people. Contrary to adults’ perceptions, young people perceive that social networking sites have many positive aspects associated with them.

Research suggests that online social networking may provide the opportunity for young people to build a sense of connectedness online, and that this may have positive impacts on mental health, with age and favourable attitudes towards social networking predicting higher levels of online social connectedness (Grieve, Indian, Witteveen, Anne Tolan & Marrington, 2013 Grieve & Kemp, 2015). Other research, however, suggests that those who have a high need for belonging will seek face-to-face personal interactions more than online interactions (Chaturvedi, Munshi, Singla, Shahri & Chanchani., 2015).

This paper will discuss the importance of social connectedness in young people and how technology could be used to promote this connectedness. However, it is important also to note the negative aspects of engaging with social media platforms, with cyberbullying, (Whittaker & Kowalski, 2015) being recognised as a having a key negative effect on young people’s wellbeing (Swist, Collin & McCormack, 2015).

Cyberbullying, is defined as an aggressive, repeated, intentional act carried out on an individual using electronic forms (Smith, Mahdavi, Carvalho, Fisher, Russell & Tippett, 2008) and is concerning for young people and their parents on a global scale. Prevalence rates of cybervictimisation vary from: 20 % (Cross, Epstein, Clark & Lester, 2008; Katz et al., 2014); 25 % (Li, 2006); to 38 % (Tarapdar & Kellett 2011); whilst other studies report figures between 10 and 40 % (Kowalski, Giumetti, Schroeder & Lattanner, 2014). More

recent Australian research by Rigby and Johnson (2016, p. 10) indicated that the spreading of malicious rumours to 'make other kids not like me', was one of the most commonly perceived forms of bullying, with 30.7 % indicating that this was happening quite often or very often at their school during the term.

Research also suggests there is a relationship between becoming a victim of cyberbullying and loneliness among adolescents, in that loneliness can be predicted by cybervictimisation (Sahin, 2012). A combination of loneliness, depression, empathy and self-esteem has been found to play a role in predicting cybervictimisation (Brewer & Kerslake, 2015; Olenik-Shemesh, Heiman & Eden, 2012; Wachs, 2012). In contrast, however, research suggests that even among those who have been cyberbullied, the online environment hosts a number of supportive communities which can serve as an escape or buffer against bullies (Davis, Randall, Ambrose & Orand, 2015).

Cyberbullying can lead to mental health concerns, including sleep loss, feelings of normalcy, anxiety, depression, lower levels of social connectedness, and suicidal ideation (Campbell, Spears, Slee, Butler & Kift, 2012; Haynie, Nansel, Eitel, Crump, Saylor, Yu & Simons-Morton, 2001; Kowalski, Giumetti, Schroeder & Lattanner, 2014; Patchin & Hinduja, 2006; Spears, Taddeo, Daly, Stretton & Karklins, 2015; van Geel, Vedder & Tanilon, 2014). A combination of both traditional bullying and cyberbullying also is believed to have an increased negative impact on mental health than either form alone (Landstedt & Persson, 2014). Additionally, those classified as bully-victims, that is, individuals who engage in bullying both as victims and as bullies (Ball, Arseneault, Taylor, Maughan, Caspi & Moffitt, 2008; Stein, Dukes & Warren, 2007) experience the most severe problems, being more depressed and anxious than those who are explicitly victims only, bullies only, or not involved in bullying (Schwartz, 2000). Cyberbully-victims are thus a particularly vulnerable group, given that they have generally experienced both cyberbullying and traditional bullying, and been both a victim and a bully (Baldry, Farrington, & Sorrentino, 2017; Spears et al., 2015). Green et al. (2012) further explain that because young people have a limited capacity for self-regulation and can be persuaded easily by peers to engage in deviant behaviours, young people may be at greater risk online when they experiment with social media, compared to a face-to-face context.

Research has also highlighted that young people engage in different coping behaviours to deal with cyberbullying. Coping strategies young people use can be categorised variously but two common forms identified by Lazarus and Folkman(1987) are: *problem-focused coping*, changing the actual terms of the troubled person-environment relationship, for example taking actions to improve or stop the situation such as retaliating or seeking information; and *emotion-focused coping*, used to regulate emotional distress (Lazarus & Folkman, 1987). Riebel, Jäger, and Fischer (2009) suggest that young people more often use different forms of *emotion-focused coping* to deal with cyberbullying, such as venting emotions, or mental or behavioural disengagement. This could be due to young people often viewing cyberbullying as something they cannot change or control (Völlink, Bolman, Dehue & Jacobs., 2013) and feeling that accepting the situation is the only way to cope with it.

What is not yet fully understood, however, is how, when, where and why young people seek help and support when using social media, or why they choose *not* to seek help, generally or specifically off or online. Further to this, how they subsequently cope in relation to seeking help or not for *cyberbullying* in particular, is also not widely understood. It is therefore of significance that the nature of coping and its relationship to

cyberbullying and help seeking intentions be examined further. This paper examines how social connectedness can influence different coping behaviours of those experiencing cybervictimisation, and how technology could be used to promote social connectedness, and consequently positive mental health outcomes.

## Method

The current research investigated the relationships between cyberbullying, help seeking intentions and coping strategies of South Australian high school students aged 12 to 17, and followed a two-stage sequential process, comprising: quantitative online surveys; followed by qualitative semi-structured interviews. This paper will only address the quantitative findings. This study is associated with, but independent of, the national Safe and Well Online (SWO) Study of the Young and Well Cooperative Research Centre (CRC).

The quantitative aspect of this study involved the use of an online survey, hosted on the online platform, Qualtrics (Qualtrics, 2013) using (a) existing previously published, reliable and standardised instruments, and (b) specially constructed questions informed by the literature review and relevant to the topics under investigation.

The six sections of the survey were:

- Section 1 About You - General demographic information: age, sex, school year level.
- Section 2 Internet Use - Time spent online, drawn from the EU kids online study (Livingstone et al., 2011), and the Young and Well National Survey (Burns et al., 2013).
- Section 3 Cyberbullying - Cyberbullying questions (Cross et al., 2009; Smith et al., 2008).
- Section 4 Coping - An adapted version of the Brief COPE Inventory (Carver, 1997).
- Section 5 Help Seeking - General Help Seeking Questionnaire (GHSQ) (Rickwood, Deane, Wilson & Ciarrochi, 2005).
- Section 6 Mental Health and Wellbeing - Social Connectedness (SC) Scale (Lee, Dean & Jung, 2008; Lee, Draper & Lee, 2001); Mental Health Continuum Short Form (MHCSF) (Keyes, 2002, 2007); and the Depression, Anxiety, and Stress Scale-(DASS21) (Lovibond & Lovibond, 1995).

To ascertain individuals' cybervictim, cyberbully, and general experiences online, questions were posed from the point of view of being a victim and a bully, and were based upon the previously published work of Smith et al. (2008) and Cross et al. (2009): 'In the past term how often have you been bullied in the following ways? (see Smith et al, 2008), followed by how often have you bullied others.

The first scale included the following response options measured on a 6-point frequency scale: Never, Only once or twice, Every few weeks, About once a week, Most days, Every day: Text messages; Pictures; webcam or video clips; Phone calls; Email; Chat sites; Instant messaging e.g. MSN Messenger; Social networking sites e.g. Facebook; Online gaming; Blog; Webpage; Twitter; Some other way not listed above 'In the past term, how often have the following things happened to you? (see Cross et al, 2009), followed by how often they had engaged in these actions.

The second scale comprised the following response options measured on the same 6-point scale: Never, Only once or twice, Every few weeks, About once a week, Most days, Every day: I was sent threatening emails; I was sent nasty messages on the internet (e.g., through MSN messenger); I was sent nasty text messages or

received prank calls on my mobile phone; Someone pretended to be me (used my screen name and password) to hurt me; Someone sent my private emails, messages, pictures or videos to others; Mean or nasty comments or pictures about me were sent or posted to websites (e.g., Facebook); Mean or nasty messages or pictures about me were sent to others mobile phones; I have been deliberately ignored or left out of things over the internet; Something else.

Three indices (cybervictim, cyberbully, and cyberbully-victim) were created using a cut-off score of once or more often in the previous school term (the last 10 weeks); and was adopted in this study as literature suggests that one instance of cyberbullying can be hurtful (Low & Espelage, 2013; Vandebosch & Van Cleemput, 2008). This criterion has been employed by prominent studies in this field (Frisén et al., 2013; Smith, Steffgen & Sittichai, 2013) due to the variation in understanding of repetition in the digital setting: where one posting can be viewed innumerable times, or where it may be forwarded by others.

Those who reported having been victimised on at least one of the response options during the preceding term (the last 10 weeks), but with no cyberbullying items checked, were deemed cybervictims. If at least one of the cyberbullying behaviour options had been reported, but no victim items were checked, they were categorised as a cyberbully. If at least one cybervictimisation item and at least one cyberbullying item had been reported, they were classified as cyberbully-victims. Those who reported never being a bully or victim were categorised as non-involved.

Given the variance that could occur within each of these categories (i.e., a person could have only been a bully one time, yet been a victim every day, and be classified as a bully-victim), cyberbullying was also examined in terms of frequency of cybervictimisation and cyberbullying perpetration. It was important to examine frequency of cyberbullying involvement, as well as categorical differences, in order to determine any differences that may be present, and to potentially further contribute to the debate on repetition as a criterion in the definition of cyberbullying.

## Results

Six government schools and two non-government schools across metropolitan and rural Adelaide participated in this study, with a final sample of 229 completed surveys. This paper reports only on aspects relevant to this paper. Table 1 displays the distribution of each of the cyber categories.

**Table I. Cyber Status Distribution by Total Sample**

Category	%	(N = 229)
Not involved	41.5	(n = 95)
Cybervictim	26.6	(n = 61)
Cyberbully	1.3	(n = 3)
Cyberbully-victim	30.6	(n = 70)
Total	100	(N = 229)

Of the total sample, 58% reported experiencing cyberbullying or cybervictimisation in some shape or form at some stage in the past school term (previous 10 weeks).

Analyses were conducted in order to understand different coping strategies used by those involved in cyberbullying. Organic factor analysis on the Brief COPE extracted seven factors from a total of 28 items. These included: active coping, emotion-focused coping, coping through humour, coping through religion, denial, substance use, and distraction. CFA confirmed these factors with some modifications (removal of items) to active coping and emotion-focused coping.

Table 2 displays cyberbully-victims' and cybervictims' likelihood of coping using the seven coping styles. These frequencies represent the collapsing of *likely* or *highly likely* categories. Participants could select more than one option, and therefore, could indicate coping in multiple ways.

**Table II. Frequency of Coping Style by Cyberbully-victims and Cybervictims**

Coping Style	Cyber status (% within)	
	Cyberbully-victims (n = 61)	Cybervictims (n = 70)
Active	48.86	54.76
Emotion-focused	24.26	19.02
Humour	38.83	36.63
Religion	17.85	14.00
Denial	7.15	8.25
Substance use	6.40	1.60
Distraction	40.35	45.9

Active coping was found to negatively correlate with frequency of cybervictimisation:  $r(229) = -.163$ ,  $p = .01$ ; and cyberbullying-victimisation:  $r(229) = -.175$ ,  $p = .008$ . This finding suggests that the more young people cyberbully or are cybervictimised, the less likely they engage in active coping strategies. Frequency of cybervictimisation was found to be positively correlated with emotion-focused coping,  $r(229) = .145$ ,  $p = .03$ , and coping through substance use,  $r(229) = .252$ ,  $p < .001$ , suggesting that the more young people are victimised by cyberbullying the more likely they may cope using these methods.

Analyses also were conducted to understand mental health outcomes associated with cyberbullying involvement, as well as any relationships between mental health, social connectedness and coping strategies. Analysis revealed significant main effects with regard to levels of depression,  $F(3, 225) = 5.18$ ,  $p = .002$ ,  $\eta^2 = .065$ . Analysis of Variance (ANOVA) with Tukey post-hoc tests revealed that cyberbully-victims ( $n = 70$ ,  $M = 7.66$ ,  $SD = 6.15$ ) were significantly more depressed than those non-involved ( $n = 95$ ,  $M = 4.17$ ,  $SD = 5.21$ ,  $p =$

001,  $d = .612$ ). Significant main effects also were evident with regard to levels of anxiety. Welch's  $F(3, 225) = 5.62, p = .016, \eta^2 = .079$  with Games-Howell post-hoc analysis revealing that cyberbully-victims ( $n = 70, M = 7.27, SD = 5.95$ ) were significantly more anxious than those non-involved ( $n = 95, M = 3.67, SD = 4.68, p < .001, d = .672$ ). Additionally, an ANOVA revealed significant main effects with regard to levels of stress,  $F(3, 225) = 5.17, p = .002, \eta^2 = .065$ . Tukey post-hoc tests revealed that cyberbully-victims ( $n = 70, M = 8.19, SD = 5.73$ ) were significantly more stressed than those non-involved ( $n = 95, M = 4.88, SD = 5.11, p = .001, d = .604$ ).

A significant main effect was evident between cyber status and social connectedness, Brown-Forsythe  $F(3, 225) = 4.81, p = .003, \eta^2 = .041$ . Results indicated that those classified as cyberbully-victims ( $n = 70, M = 51.39, SD = 1.36$ ) were significantly less socially connected than those classified as non-involved ( $n = 95, M = 56.22, SD = 1.17, p = .04, d = 3.81$ ).

Bivariate correlation analyses revealed several weak but significant positive correlations between types of coping intentions and the three constructs of the DASS21. Positive correlations were found between emotion-focused coping and depression,  $r(229) = 0.388, p < .001$ ; anxiety,  $r(229) = 0.335, p < .001$ ; and stress,  $r(229) = 0.420, p < .001$ ; and coping through substance use and depression,  $r(229) = 0.301, p < .001$ , anxiety,  $r(229) = 0.256, p < .001$ , and stress,  $r(229) = 0.261, p < .001$ . A significant negative correlation was found between active coping and depression,  $r(229) = -0.163, p = .014$ , and anxiety,  $r(229) = -0.130, p = .049$ . Significant main effects were also found in relation to severity levels of:

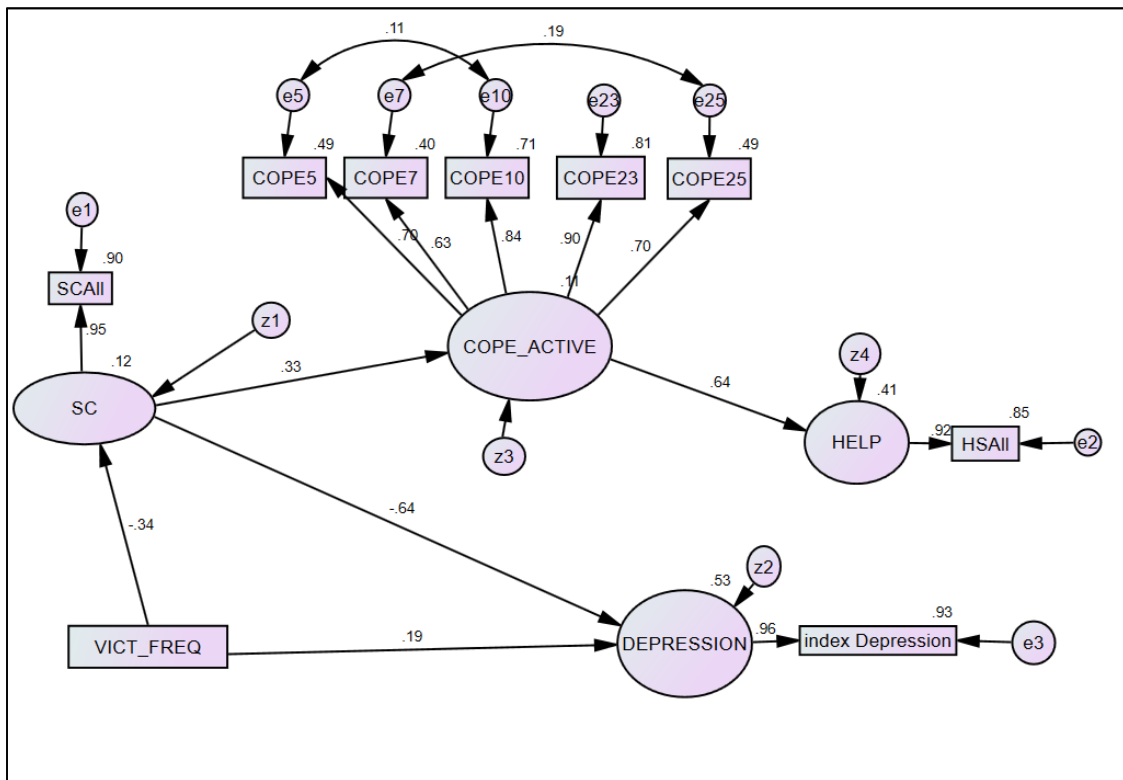
- depression and coping through substance use, Welch's  $F(4, 224) = 3.91, p = .007, \eta^2 = .064$ ;
- anxiety and emotion-focused coping, Welch's  $F(4, 224) = 6.59, p < .001, \eta^2 = .090$ , and coping through substance use, Welch's  $F(4, 224) = 3.81, p = .010, \eta^2 = .071$ ; and
- stress and emotion-focused coping,  $F(4, 224) = 7.71, p < .001, \eta^2 = .023$ ; and coping through substance use, Welch's  $F(4, 224) = 2.73, p = .043, \eta^2 = .110$ .

Structural equation modelling was used to further understand the complexity of the relationships discovered between cybervictimisation, help seeking, and mental health, and the role of social connectedness. This paper reports on the three most commonly used coping methods: active coping, emotion-focused coping, and coping through distraction; and examines how social connectedness may influence help seeking intentions and depression, anxiety, and stress.

In regards to active coping, modelling revealed that the standardised un-mediated direct effect of cybervictimisation frequency on active coping was  $-.188 (p = .007)$ . Furthermore, significant unmediated direct paths were found from cybervictimisation frequency to depression (standardised effect:  $.408, p < .001$ ), anxiety (standardised effect:  $.380, p < .001$ ) and stress (standardised effect:  $.400, p < .001$ ) and between active coping and depression (standardised effect:  $-.211, p = .004$ , anxiety (standardised effect:  $-.178, p = .016$ ) and stress (standardised effect:  $-.161, p = .029$ ).

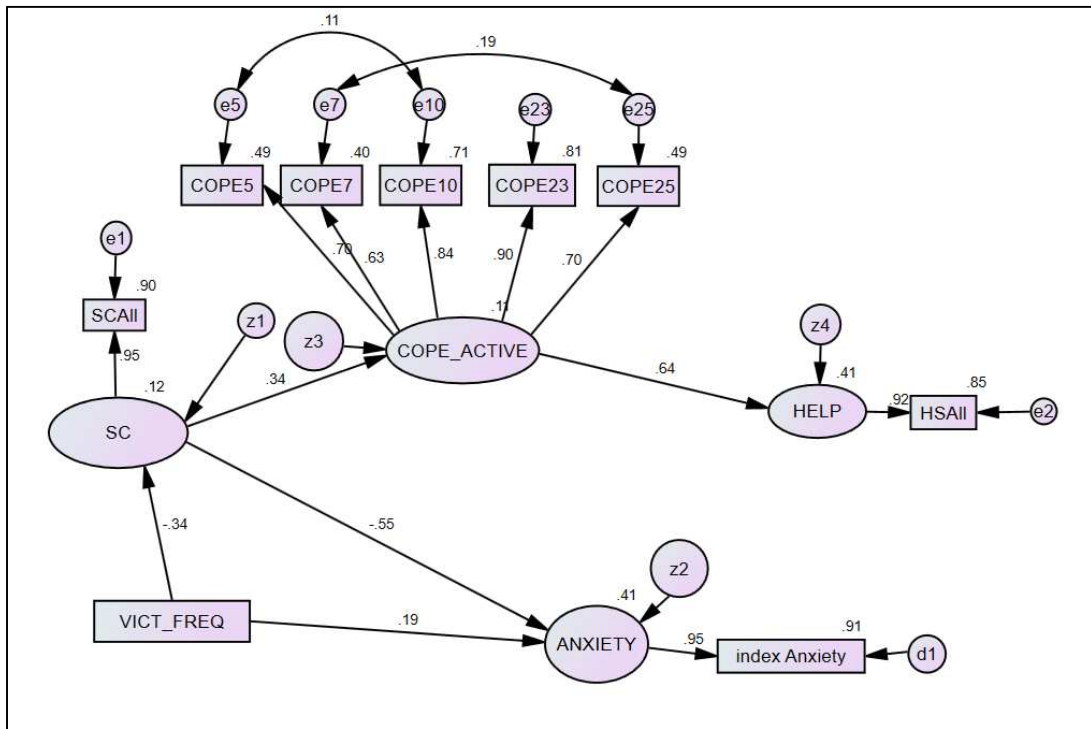
When social connectedness was added to the model, the path between cybervictimisation frequency and active coping become non-significant, with a standardised value of  $-.082 (p = .250)$ , however a significant indirect effect still existed (standardised indirect effect:  $-.105 (.001)$ , 95 % CI  $(-.186, -.046)$ ). This indicated that social connectedness fully mediated the relationship between cybervictimisation frequency and active coping.

Results also showed the negative direct effect of active coping on depression became non-significant when social connectedness was added to the model ( $p = .404$ ). Furthermore, social connectedness had no significant effect on help seeking overall, with a direct, standardised mediated path of .005 ( $p = .942$ ). The standardised indirect effect of social connectedness on help seeking was .216 ( $p = .000$ ), 95 % CI (.124, .329). This indicated that active coping fully mediated the relationship between social connectedness and help seeking, suggesting that the use of active coping may influence the effect of social connectedness on help seeking. Fit statistics are detailed in Table 3, and the models can be seen in figures 1, 2 and 3. These models account for 12% variance in active coping, 41 % of the variance in help seeking, 53% of the variance in depression, 41% of the variance in anxiety, and 47% of the variance in stress.

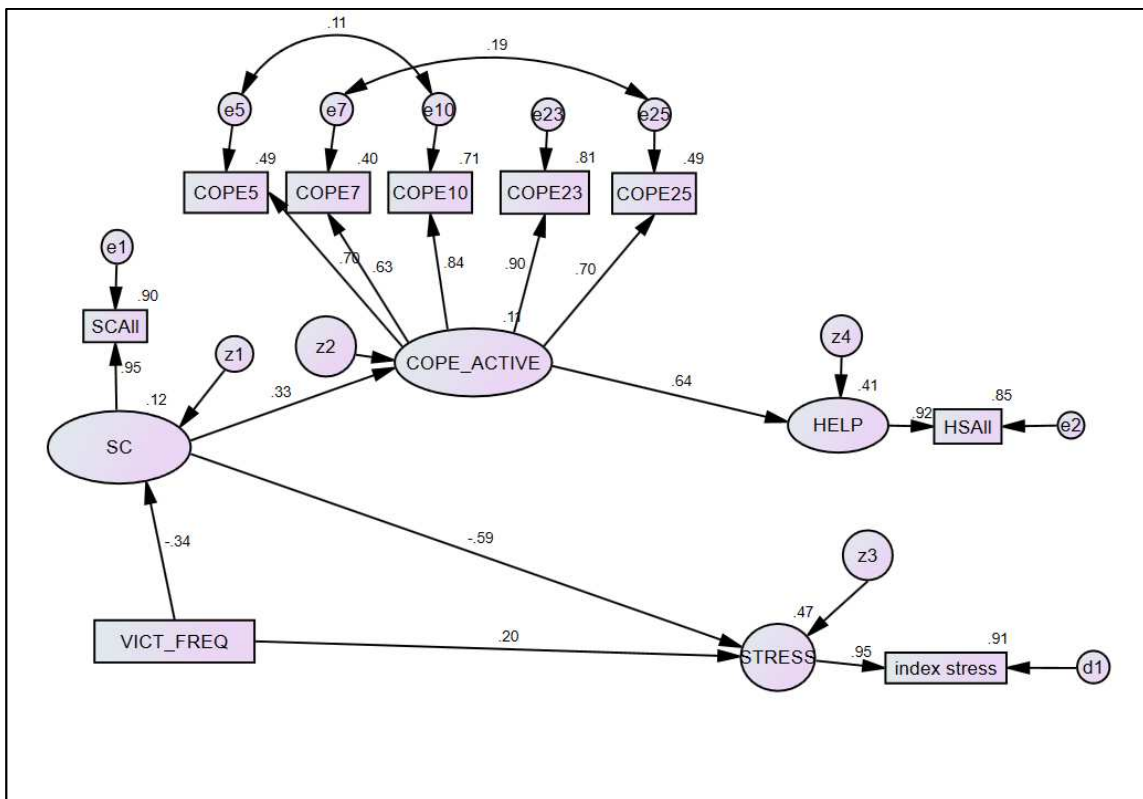


**Figure 1: Active Coping Model - Depression**





**Figure 2: Active Coping Model - Anxiety**



**Figure 3: Active Coping Model – Stress**

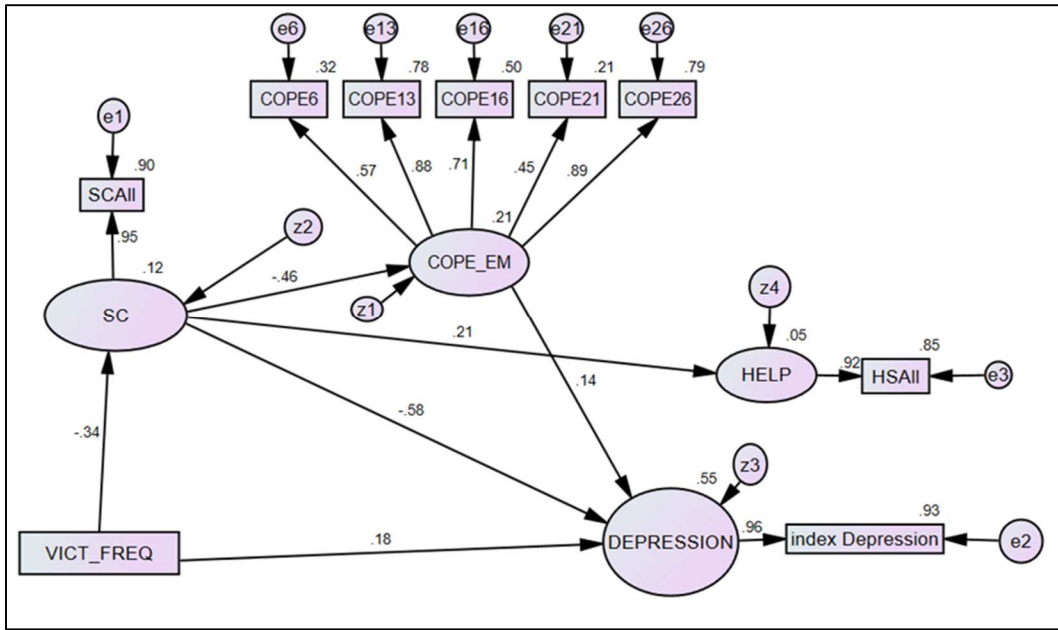
**Table III. Active Coping Model Fit Statistics**

Fit Statistics	Depression	Anxiety	Stress
$\chi^2(df, p)$	31.028 (24, .153)	31.425 (24, .142)	34.175 (24, .082)
RMSEA	.036	.037	.043
PCLOSE	.729	.714	.607
LO90	0.000	0.000	0.000
$\chi^2/df$	1.293	1.309	1.424
SRMR	.039	.041	.045
GFI	.971	.971	.969
AGFI	.947	.945	.942
TLI	.987	.986	.981
CFI	.992	.991	.987

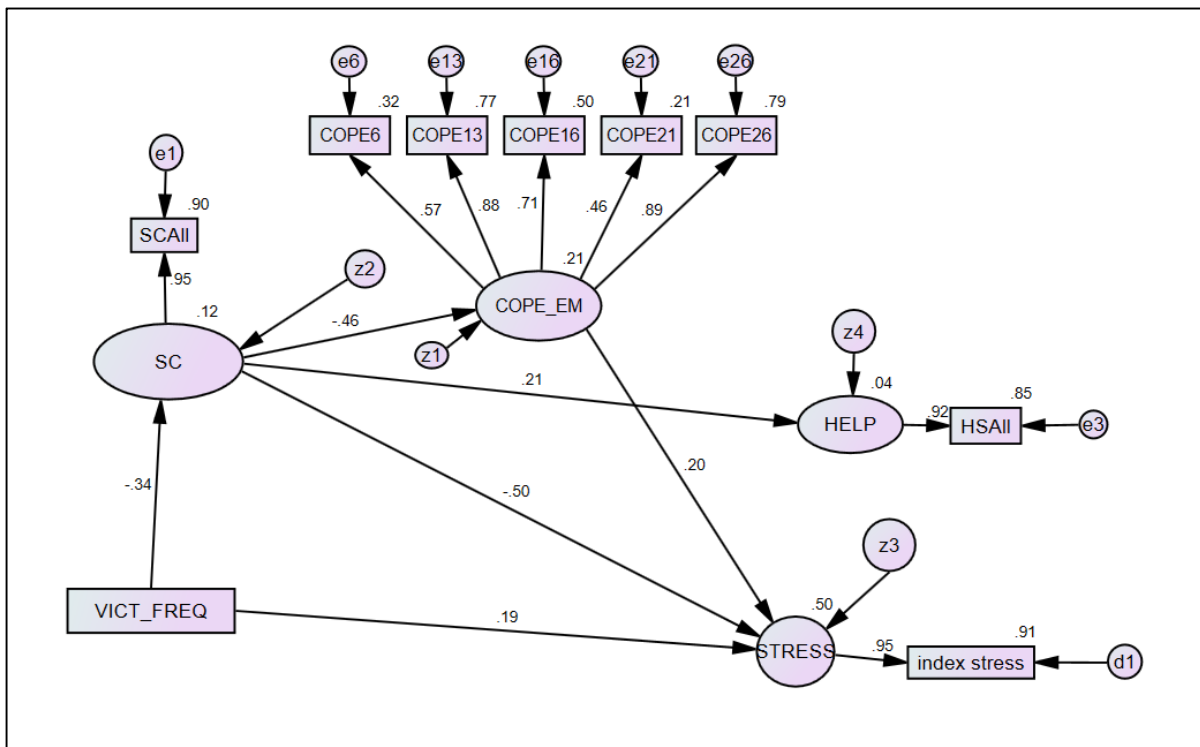
Investigations into the model predicting the outcome variable of emotion-focused coping, revealed the standardised un-mediated direct effect of cybervictimisation frequency on emotion-focused coping was .178 ( $p = .012$ ), however with the inclusion of social connectedness, the path become non-significant, .023 ( $p = .733$ ). The standardised indirect effect of cybervictimisation frequency on emotion-focused coping was .154 (.000), 95 % CI (.006, .022). This suggests that social connectedness fully mediated the relationship between cybervictimisation frequency and emotion-focused coping. Therefore, if young victims of cyberbullying are more socially connected, there is less tendency they will engage in emotion-focused coping in response to being victimised.

Significant unmediated positive direct effects were found between emotion-focused coping and depression (standardised effect: .440,  $p < .001$ , anxiety (standardised effect: .387,  $p < .001$ ) and stress (standardised effect: .461,  $p < .001$ ). The standardised, un-mediated direct effect of social connectedness on help seeking was .223 ( $p = .003$ ), and no significant relationship was evident between emotion-focused coping and help seeking (standardised effect: -.044,  $p = .562$ ).

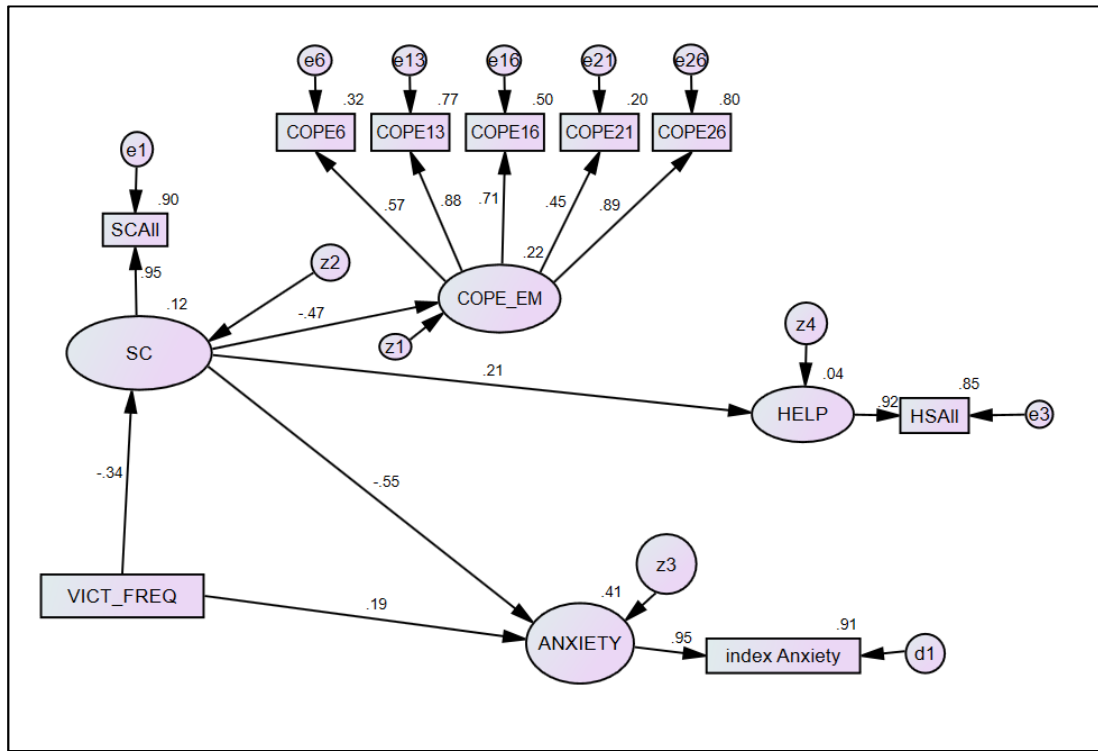
This suggests that whilst emotion-focused coping did not predict help seeking, it did predict scores of depression, and stress, with these models accounting for 55 % of the variance in depression, 42 % of the variance in anxiety, 50 % of the variance in stress, 5 % of the variance in help seeking, and 21 % of the variance in emotion-focused coping. Fit statistics are detailed in Table 4, and the models can be seen in Figures 4, 5 and 6.



**Figure 4: Emotion-Focused Coping Model – Depression**



**Figure 5: Emotion-Focused Coping Model – Anxiety**



**Figure 6: Emotion-Focused Coping Model - Stress**

**Table IV. Model 11 Emotion-Focused Coping Model Fit Statistics**

Fit Statistics	Depression	Anxiety	Stress
$\chi^2$ (df, p)	32.123 (25, .154)	34.374 (26, .126)	36.440 (25, .065)
RMSEA	.035	.038	.045
PCLOSE	.741	.713	.577
LO90	0.000	0.000	0.000
$\chi^2$ /df	1.285	1.322	1.458
SRMR	.041	.046	.040
GFI	.971	.968	.967
AGFI	.947	.944	.940
TLI	.985	.982	.976
CFI	.990	.987	.983

Investigations into the coping through distraction models revealed that the models only accounted for <5 % of the variance in this coping style. Analysis also indicated that cybervictimisation frequency had no direct significant relationship on coping through distraction, and coping through distraction had no significant direct relationship on depression, anxiety or stress. Therefore, further analyses of this model will not be presented in this paper.

## **Discussion**

This study has highlighted that social connectedness plays a significant role in how young people cope with cyberbullying: which consequently influences their help seeking intentions and mental health outcomes. Importantly, the authors wish to highlight that social connectedness can be promoted online, and that technology may therefore play a significant part in promoting social connectedness in young people.

Quantitative results revealed that in response to cyberbullying experiences, young people indicated that they would most frequently choose active coping (for example, thinking of a solution to the problem or seeking support), followed by distraction (for example, trying to see the situation in a different light). These results are contrary to past research (Jacobs, Dehue, Völlink & Lechner, 2014; Jacobs, Völlink, Dehue & Lechner, 2015) which suggests that young people may be more likely to engage in emotion-focused coping styles (for example, giving up trying to cope with the situation) if they are involved in cyberbullying. Other research suggests, however, that young people may use a combination of adaptive (active coping) and maladaptive (emotion-focused) coping strategies to deal with cybervictimisation (Wright, 2016).

This research has highlighted that social connectedness has a protective influence on coping intentions in response to cybervictimisation. The intersection of the findings highlight that coping, in relation to cyberbullying, is influenced by several factors. Whilst a majority of young people intended to cope actively, frequency of cybervictimisation could lead to a higher likelihood of engaging in emotion-focused coping instead. This is a concern, given that emotion-focused coping was linked to poorer mental health than those who may cope actively.

Social connectedness also had some effect on the mental health outcomes associated with cyberbullying and cybervictimisation. Specifically, those who were more socially connected reported better mental health, and were more likely to engage in active coping as a result of cyberbullying, and less likely to engage in emotion-focused coping. This is in line with past research, which highlights that social connectedness can have an effect on reducing depression, and that there may be a relationship between cybervictimisation and feelings of loneliness, or social disconnection (Brewer & Kerslake, 2015; Fraser & Pakenham, 2009; Olenik-Shemesh, Heiman & Eden, 2012; Sahin, 2012; Wachs, 2012).

Furthermore, recent research indicates that the less social support young people have, the lower their sense of self-efficacy, and the lonelier they feel, the more likely they will experience lower levels of wellbeing overall and the higher the likelihood they will become involved in cyberbullying in some way (Eden, Heiman, & Olenik-Shemesh, 2016). Past research also suggests that engaging in ineffective coping styles can sometimes prolong the cyberbullying (Craig, Pepler & Blais, 2007; Kristensen & Smith, 2003; Mahady Wilton, Craig & Pepler, 2000), and engagement in maladaptive coping styles, in contrast to adaptive coping styles, exacerbate

the negative effects of cyberbullying (Mahmoud, 2011). Further research examining different coping styles and influences on the continuation of the cyberbullying is worthy of investigation. Other researchers suggest that using problem-focused coping styles (i.e. active coping) may have benefits when receiving treatment of symptoms for mental health problems (Moret-Tatay, Beneyto-Arrojo, Laborde-Bois, Martínez-Rubio, & Senent-Capuz, 2016), and significantly influence how someone may cope with negative or traumatic events in future, and that the use of maladaptive or ineffective coping strategies may be linked to psychological distress (Chahal, Rana & Singh, 2016).

Results of this study are also in line with the large nationally representative cohort study Safe and Well Online, which found that cyberbully-victims were significantly less socially connected than those non-involved in cyberbullying (Spears et al., 2015, 2016a, 2016b). Technology could play a significant role in feelings of social connectedness in young people. Given young people spend so much time online, young people could feel more connected with their friends and family when using social media and social networking platforms. Providing opportunities for young people to connect with peers/others, whether online or offline, and encouraging young people to look out for people who may be lonely, could be important for providing a buffer and equipping young people with support networks. This could help to facilitate effective positive coping methods should they become a victim of cyberbullying. Indeed, research highlights that both school connectedness and social connectedness is important in terms of positive mental health outcomes, and that social connectedness alone is not enough (Bond et al., 2007).

The relationship between cyberbullying involvement and social connectedness certainly requires further research. Due to the cross-sectional nature of this research, whilst it appears that social connectedness can act as a protective factor against negative coping styles and negative mental health, conclusions cannot be drawn with regard to cyberbullying causing a decrease in social connectedness, or conversely if a decrease in social connectedness causes an increase in cyberbullying. This study has, however, revealed that a relationship does exist between frequent cybervictimisation and lower scores of social connectedness. Longitudinal research is needed to determine the role of social connectedness as a protective and/or predictive factor.

## **Conclusion**

A key contribution of this research, is the enhanced understanding about the role social connectedness plays in young people's lives. This research has revealed the importance of social connectedness as a potentially protective buffer between cyberbullying involvement and help seeking intentions. Whilst findings suggest that frequent involvement in cyberbullying can predict a lower likelihood of help seeking, the structural equation models showed that social connectedness may be a protective factor for some people against the negative effects associated with frequent cybervictimisation. Therefore, providing opportunities that support young people to develop and sustain social connectedness, whether in an online or offline environment, and helping young people to develop the social skills that facilitate positive social connections, on and offline, is of critical importance.

These findings shed light on the reasons why young people do not seek help or engage with help services, and that in the first instance, a focus on promoting effective coping strategies is needed before we can

expect to see a greater number of young people engaging with help seeking. This is particularly critical as the findings from this study have shown that young people who are not seeking help are those who are more likely to be coping in maladaptive ways.

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