The effects of childhood bullying on adult trust levels

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There are multiple negative effects, which can occur after experiencing bullying victimisation. The current study aims to investigate whether experiencing such victimisation throughout compulsory education has an effect on an individual's trust levels throughout adulthood. A sample of 110 participants were employed, all of whom completed a survey containing the Retrospective Bullying Questionnaire (Schäfer et al., 2004), and four different trust scales. Using four separate multiple regressions, it was found that nine variables significantly predicted variations in trust level scores for all four of the scales, which suggests that being the victim of bullying reduces trust levels in adulthood. Indirect bullying and gender were the two predictor variables, which significantly predicted trust levels when viewed individually. The findings of this study may be applied to both future interventions aimed at reducing bullying and counselling techniques when attempting to increase victims' trust levels.

Keywords: adulthood; bullying; compulsory education; trust levels; victimisation

Bullying

Approximations of the prevalence of bullying range from 10–25% worldwide (Analitis et al., 2009; Nansel et al., 2001) making it a universal problem. Most variations in the prevalence of bullying are subject to variations in the age of participants and the classification of bullying used. Furthermore, bullying is often experienced once individuals enrol in the school system, when social networks become wider (Arsenault et al., 2010).

The most commonly accepted definition of bullying is that it is the act of intentional and repeated aggressive behaviour towards one or more weaker individuals (e.g., Olweus, 1993; 2002). The aggressive behaviour is often split into the following four categories: (1) direct verbal (insults spoken towards the individual; Zwierzynska et al. 2013); (2) direct-physical (such as punching; Zwierzynska et al. 2013); (3) indirect (such as spreading of rumours; Bjorkqvist et al., 1992); or, (4) electronic (also known as cyberbullying; Wang et al., 2011). The second element of bullying is that the hurtful actions are repeated over a period of time. Finally, a power imbalance between the bully and the victim exists, with the victim finding difficulty defending themselves. A power imbalance may exist in terms of physical strength, age, or popularity (Arsenault et al., 2010).

A plethora of negative effects have been associated with being the victim of bullying, both short and long-term. With regards to short-term effects, research suggests victims experience acute distress such as chronic worrying, nightmares, and decreased overall well-being (Arsenault et al., 2010). However, it is the long-term effect the victim experiences that can cause most problems, as even when the bullying has desisted, victims are more likely to suffer from internalising symptoms such as long-term social isolation and loneliness, depression and anxiety (Egan & Perry, 1998; Forero et al., 1999; Hodges & Perry, 1999; Kaltiala-Heino et al., 1999; Kochenderfer-Ladd & Wardrop, 2001; O'Moore & Hillery, 1989; Olweus & Limber, 2010; Veenstra et al., 2005). Persistent victimisation is also associated with impaired social adjustment between the ages of 9–14 years (Goldbaum et al., 2003). Other research has even shown that the effects may continue throughout school (Rigby, 1999) and into adulthood (Ambert, 1994; Hugh-Jones & Smith, 1999; Olweus, 1993).

More recently, several studies have indicated associations between involvement in bullying and problems throughout adulthood (Sourander et al., 2007; Wolke et al., 2013; Moore et al., 2014), yet although research has shown that the negative effects of bullying can persist, few studies have addressed the transition from adolescence to early adulthood.

Trust

Trust is a phenomenon that works off an individual's highest hopes and aspirations balanced against deepest worries. Deutsch (1973) stated trust to be 'confidence that [one] will find what is desired [from another] rather than what is feared' (p.148), and is considered to be one of the major factors involved in the development and maintenance of well-functioning relationships (Simpson et al., 2007). As with many characteristics, the ability to trust is often developed during childhood and adolescence. Schäfer et al., (2004) argued that being bullied during such important developmental stages would result in '… an "update" of social expectations, likely to show as an "insecure" internal working model of relationships…' (p.380); being bullied is often perceived by the victims to be a loss of support and results in the experiencing victimisation during education with functioning aspects of adult life, such as social relationships. Schäfer et al., (2004) managed to support the argument that previous victims can 'update' social expectations by discovering a significant number of previous victims were categorised with a 'fearful' attachment profile. The individuals found it difficult to trust others due to being fearful of getting close to them would cause emotional pain, particularly if victimisation occurred

during secondary school. Despite this support, many of the participants were of similar age and therefore did not represent the older generations. Therefore, as individuals develop even further, greater experience of others may in fact increase or decrease levels of trust.

Loneliness and trust

Loneliness is one of the negative effects associated with bullying victimisation (Kochenderfer-Ladd & Wardrop, 2001; Olweus & Limber, 2010; Rubin & Mills, 1991; Veenstra et al., 2005). The most broadly accepted definition is that loneliness is a feeling of distress resulting from discrepancies between an individual's ideal and perceived social relationships (Hawkley & Cacioppo, 2007). Weiss (1973) went even further and made a distinction between different kinds of loneliness either due to emotional or social isolation. Where emotional isolation appears with an absence of close emotional attachment to others, social isolation occurs with the absence of an engaging social network.

Perceived loneliness during adulthood is negatively associated with trust beliefs and behaviours (Jones et al., 1981; Rotenberg, 1994; Rotenberg et al., 2002), in other words the higher the levels of loneliness, the lower the trust beliefs. A small number of short-term longitudinal studies have indicated a causal influence of victimisation and experiencing loneliness. Kochenderfer-Ladd (2001)followed US pre-schoolers for four years and reported a significant relationship between being victimised and experiencing loneliness and lower social satisfaction. Rotenberg (1994) suggested that the low trust exhibited by lonely individuals also serves to maintain the level of loneliness by limiting a person's willingness to initiate contact with others and share personal information. Therefore, if an individual begins to experience loneliness during victimisation, it follows that a continuous loop of high levels of loneliness and low trust will continue into adulthood.

Indication of a causal relationship has also been highlighted in some retrospective studies. Many adults who experienced severe victimisation continue to carry deep, poignant memories of the bullying episodes (Moore et al., 2014; Smith, 1991). Many of these adults also reported feelings that the experience did in fact have long-term effects, such as perceived loneliness and a lack of trust in social relationships; and idea supported by the retaining of such strong emotional memories of victimisation. However, Brewin et al., (1993) suggested that such reports had in fact been overestimated, particularly involving memories of highly salient and emotionally charged events. Victimisation, especially when severe, is one such topic that appears to fall into this category.

Gender

Research has also observed gender differences in loneliness and trust. For example, Rotenberg et al.. (2002) reported that girls held greater trust belief in same-gender peer than boys; accounting for 57% of loneliness in girls in comparison to 18% in boys. Despite the fact that no real gender differences in the negative effects of victimisation have been observed, this greater trust belief in females may be an indication of a gender difference with regards to adult trust levels. Having greater trust prior to victimisation means a more severe break of trust later. However, although there are vague connections made by research between bullying victimisation and trust levels, no studies have explicitly examined the link.

Cyberbullying

The internet has now become an additional facility for social interaction, particularly among younger people (Gross, 2004; Hinduja & Patchin, 2009; Jackson et al., 2006). Although the ability to communicate easily via social media is often considered a positive advancement, the

use of social media sites also creates an additional means through which individuals can experience bullying (Sampasa-Kanyinga & Hamilton, 2015). Cyberbullying is defined as the 'wilful and repeated harm inflicted using computers, cell phones, and other electronic devices' (Hinduja & Patchin, 2009, p.208).

Cross et al., (2012) found that 28% of 11–16 year olds had experienced bullying online, with over a quarter of these cases categorised as ongoing. Furthermore, Taradpar and Kellett (2011) also found that 38% of participants were exposed to online bullying, as either a bystander or a victim. Research has even noted that many individuals who are victimised online report no previous experience with face-to-face bullying (Ybarra et al., 2007), therefore emphasising a new area of vulnerability.

Research has highlighted the fact that the effects of cyberbullying often reflect those of traditional bullying. For example, individuals report many of the internalising symptoms such as low self-esteem or depression and anxiety, as well as high absenteeism and poor academic performance (Patchin & Hinduja, 2010; Willard, 2006). O'Brien and Moules (2013) conducted a survey to investigate public viewpoints on the two forms of bullying, and discovered that 74% of participants agreed that cyberbullying was at least equivalent to the 'traditional' experience. Other researchers have begun to consider cyberbullying as more serious than the 'traditional' forms due to the anonymity behind the attacks (Campbell, 2005; Mishna et al., 2009), partly due to its ability to invade traditionally safe environments such as the home (Juvonen & Gross, 2008).

Rationale and aims

The current study looks at the influence of several predictor variables. Age was used to investigate whether the negative effects decrease through the lifespan. Gender was included due to Rotenberg et al.'s (2002) study on trust levels in males and females. Experiencing physical, verbal, indirect, and cyberbullying were all included to discover whether there is a type of bullying which influences an individual's trust levels more than others. Enjoyment of school and duration of the attacks were both included as ways to discover the perceived severity of the attacks, and finally experiencing bullying after compulsory education looks into whether prolonged victimisation increases the negative effects of bullying. The aim of the study is to discover whether any (or multiple) of the variables representing aspects of bullying victimisation have an effect on trust levels during adulthood.

Hypotheses

H_1: Being the victim of bullying during childhood will have an effect on an individual's trust levels during adulthood.

H_2: Different forms of bullying will affect individual's trust levels differently.

METHOD

Participants

In order to attain a medium effect ($f^2 = 0.15$) with a statistical power of .80 and $p < .05$, the minimum required sample for a multiple regression with nine predictor variables was calculated as be 96 (Cohen, 1992). In this study, 110 participants were employed, made up of 48 males and 63 females ranging from having experienced no bullying victimisation throughout

childhood and adolescence, to having experienced severe bullying victimisation. The mean age of participants was 30.35 years ($SD = 11.43$). All participants lived in the UK.

Participants

Information regarding participants' bullying experiences during compulsory education were recorded using a modified version of the Retrospective Bullying Questionnaire (Schäfer et al., 2004). Slight modifications were implemented following consultation with a small focus group of five participants. A section on cyberbullying was also included, and adopted the same structure as the items for physical, verbal, and indirect bullying. The modified version of the questionnaire consisted of 37 items, and aided in determining the type of bullying experienced by individuals – for example, whether it was physical, indirect, or even non-existent throughout compulsory education. A five-point Likert scale was applied to the items measuring whether individuals enjoyed school, and the duration of the victimisation. For example, if a participant only experienced bullying at randomly spaced intervals, a score of '2' was applied, whereas experience lasting a year or more were assigned a score of '5'.

Four standardised trust scales were employed to determine participants' trust levels. The first was Rotter's Interpersonal Trust Scale (ITS; 1967), one of the most widely cited measurements in trust research (Carrington, 2006). THE ITS employs a five-point Likert scale and consists of 25 items. The scale has an internal consistency of 0.76, with test-retest reliabilities over five weeks, three months, and seven months, reported at 0.69, 0.68, and 0.56 respectively (Rotter & Stein, 1971).

The second scale used measured general trust (Yamagishi, T. & Yamagishi, M., 1994). This scale consisted of six items, also adopting a five-point Likert scale.

The third scale measured trust levels towards strangers (Naef & Schupp, 2009). It consisted of two items, which were: 'How much do you trust strangers you meet for the first time?', and 'When dealing with strangers, it is better to be cautious before trusting them.' Responses were measured on a four-point scale.

The final scale was McShane and Von Glinow's (2010) Propensity to Trust Scale (PTS). It consisted of eight items, for example: 'Most people would tell a lie if they could gain by it.' And 'I believe that most people are generally trustworthy.' The PTS focused on the participant's overall willingness to trust others, and responses were recorded on a six-point Likert scale.

Finally, two open-ended questions were also included, which were: 'Why do you think you trust people to the level that you do?', and 'Do you believe bullying could have an effect on how the victims view strangers? Why?'

Demographic data, gender, nationality, and current location were also collected.

Procedure

The data were collected throughout the autumn term of 2015 and the winter term of 2015–16 using an online survey created using the website SurveyMonkey. Each scale was displayed separately for clarity, due to the different scoring techniques used by each. The survey was advertised on social media sites such as Facebook and Twitter to undergraduate students.

RESULTS

The current study examined whether there was a relationship between being a victim of bullying during childhood and adolescence, and an individual's trust levels during adulthood. The predictor variables employed were the different types of bullying experienced: physical, verbal, indirect, and cyberbullying, as well as age, gender, whether participants enjoyed school, the duration of victimisation and whether participants continued to be a victim of bullying after leaving school. The criterion variables were the four types of trust. Table 1 below shows the mean and standard deviation scores for each of the four trust scales.

Table 1

Means and Standard Deviations for the Four Trust Scales

Scales	*M*	*SD*
Rotter's Interpersonal Trust Scale	60.05	11.47
Yamagishi, T. & Yamagishi, M.'s General Trust Scale	19.05	5.82
Naef & Schupp's Trust Scale	3.81	1.75
McShane & Von Glinow's Propensity to Trust Scale	25.55	8.53

Multiple regressions were conducted for each of the four trust scales separately, with the predictor variables remaining the same throughout.

Multiple regression for Rotter's Interpersonal Trust Scale

Table 2 illustrated that the level of trust as measured by Rotter's ITS is strongly correlated to being indirectly bullied ($r = .44$) and the duration of victimisation ($r = .40$). A moderate correlation can be observed between the scores on the trust scale and being cyberbullied ($r = .35$). Further moderate correlations can be observed between trust level scores and gender ($r = .28$), enjoyment of school ($r = .28$), being physically bullied ($r = .26$), whether the individual continued to be bullied after education ($r = .26$), age ($r = .25$), and being verbally bullied ($r = .21$).

Table 2

Correlation Between the ITS and Predictor Variables

Scale	Age	Gender	ES	PB	VB	IB	CB	Duration	BAE
Rotter's Trust Scale	.25**	.28**	.28**	.26**	.21*	.44**	.35**	−.40**	.26
Age		−.22**	−.09	−.09	.10	.17*	.41**	.03	−.18*
Gender			.11	.37**	.10	−.00	−.19*	−.19*	.10
ES				.42**	.16	.26**	.24**	−.46**	.24**
PB					.53**	.38**	.15	−.61**	.35**
VB						.63**	.31**	−.68**	.31**
IB							31**	−.59**	.34**
CB								−.35**	.05
Duration									−.50**

ES: enjoyed school; PB: physically bullied; VB: verbally bullied; IB: indirectly bullied; CB: cyberbullied; BAE: bullied after education

* *p* < .05, ** *p* < .01

Significant correlations were also observed between the predictor variables. The three more 'traditional' forms of bullying, physical, verbal, and indirect, had moderate, negative correlations to the duration of bullying: ($r = -.61$), ($r = -.68$), and ($r = -.59$) respectively.

A multiple regression was performed to assess the unique contributions of each predictor variable to trust levels as measured by Rotter's trust scale. For each predictor variable taken separately, the beta values are displayed in Table 3. The table shows that age, gender, experiencing verbal bullying and experiencing indirect bullying all made significant, unique contributions to trust levels found using the ITS.

Table 3

Beta Values for Each Predictor Variable

Variables	*B*	SE	β
Age	.24	.09	.24**
Gender	8.50	1.94	.37**
Enjoyed school	.58	.76	.07
Physically bullied	−1.09	2.42	−.05
Verbally bullied	−7.89	3.20	−.29*
Indirectly bullied	9.23	2.60	.36**
Cyberbullied	6.05	2.47	.24
Duration of bullying	−1.12	.89	−.17
Bulied after education	3.30	2.08	.14

* *p* < .05, ** *p* < .01

Taken together, the predictor variables accounted for 45% of the variance in the trust level scores ($R^2 = .45$) and collectively significantly predicted trust level scores, $F(9, 100) = 9.16$, p 0.001.

Multiple regression for Yamagishi, T. & Yamagishi, M.'s General Trust Scale

Table 4
Correlations Between the General Trust Scale and Predictor Variables

Variable	Age	Gender	ES	PB	VB	IB	CB	Duration	BAE
Trust Scale	.25**	.31**	.37**	.36**	.25**	.37**	.18*	−.36**	.24

ES: enjoyed school; PB: physically bullied; VB: verbally bullied; IB: indirectly bullied; CB: cyberbullied; BAE: bullied after education

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

Table 4 illustrate that the level of trust found by using Yamagishi, T. & Yamagishi, M.'s General Trust Scale is moderately correlated to enjoyment of school ($r = .37$), being indirectly bullied ($r = .37$), being physically bullied ($r = .36$), the duration of bullying ($r = .36$), and gender ($r = .31$). The trust scores found by the scale are also mildly correlated to age ($r = .25$), being verbally bullied ($r = .25$), being bullied after education ($r = .24$), and weakly correlated to being cyberbullied ($r = −.18$).

A multiple regression was performed to assess the unique contributions of each predictor variable to Yamagishi, T. & Yamagishi, M.'s General Trust Scale. For each predictor variable taken separately, the beta values are given in Table 5, which shows that age, gender, and experiencing indirect bullying made significant, unique contributions to trust levels found using the General Trust Scale.

Table 5
Beta Values for Each Predictor Variable

Variables	B	SE	β
Age	.18	.05	.36**
Gender	3.69	1.03	.32**
Enjoyed school	1.08	.40	.26**
Physically bullied	.82	1.29	.07
Verbally bullied	−1.01	1.70	−.07
Indirectly bullied	2.89	1.39	.23*
Cyberbullied	−.49	1.31	−.04
Duration of bullying	−.06	.48	−.02
Bullied after education	1.48	1.11	.12

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

Taken together, the predictor variables accounted for 39% of the variance in the General Trust Scale scores ($R^2 = .39$), and collectively, significantly predicted changes in trust levels, F (9, 100) = 7.37, $p = 0.001$.

Multiple regression for Naef & Schupp's Trust Scale

Table 6
Correlations Between Naef & Schupp's Trust Scale and Predictor Variables

Variable	Age	Gender	ES	PB	VB	IB	CB	Duration	BAE
Naef &Schupp Trust Scale	.15	.13	.27**	.11	.18*	.29**	.27**	−.17*	.04

ES: enjoyed school; PB: physically bullied; VB: verbally bullied; IB: indirectly bullied; CB: cyberbullied; BAE: bullied after education

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

Table 6 illustrates that the level of trust found by Naef & Schupp's Trust Scale mildly correlates with experiencing indirect bullying ($r = .29$), enjoyment of school ($r = .27$), and cyberbullying ($r = .27$). There is also a weak correlation with being verbally bullied ($r = .18$), and duration of the bullying attacks ($r = .17$). No correlation was observed with age, gender, experiencing physical bullying and being bullied after education.
For each predictor variable taken separately, the beta values are displayed in Table 7. The table shows that gender, enjoyment of school, and experiencing indirect bullying each made unique significant contributions to the trust scores found by the scale.

Table 7
Beta Values for Each Predictor Variable

Variables	B	SE	β
Age	.01	.02	.07
Gender	.83	.35	.24*
Enjoyed school	.35	.14	.28*
Physically bullied	−.49	.44	−.14
Verbally bullied	.41	.59	.1
Indirectly bullied	.97	.48	25*
Cyberbullied	.87	.45	.21
Duration of bullying	.22	.16	.21
Bulied after education	−.01	.38	−.00

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

Taken together, the nine variables accounted for 21% of the variance in Naef & Schupp's trust scale ($R^2 = .21$), and collectively significantly predicted in the trust levels found by the scale, F (9, 100) = 2.99, $p = .003$.

Multiple regression for McShane & Von Glinow's Propensity to Trust Scale

Table 8
Correlations Between the PTS and Predictor Variables

Variable	Age	Gender	ES	PB	VB	IB	CB	Duration	BAE
Propensity to Trust	.23**	.28**	.15	.22*	.16*	.30**	.22*	−.14	.13

ES: enjoyed school; PB: physically bullied; VB: verbally bullied; IB: indirectly bullied; CB: cyberbullied; BAE: bullied after education

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

NB: Correlations between predictor variables can be found in Table 2.

Table 8 illustrates that levels of trust found by the PTS mildly correlated with experiencing indirect bullying ($r = .30$), gender ($r = .28$), age ($r = .23$), being physically bullied ($r = .22$), and being cyberbullied ($r = .22$). The scores also weakly correlated with being verbally bullied ($r = .16$). Enjoyment of school, duration of bullying attacks, and being bullied after education showed no significant correlation to trust level scores.

For each of the predictor variables taken separately, the beta values are shown in Table 9.
Table 9
Beta Values for Each Predictor Variable

Variables	*B*	SE	β
Age	.17	.07	.22*
Gender	6.42	1.64	.38**
Enjoyed school	.50	.64	.08
Physically bullied	1.38	2.05	.08
Verbally bullied	−1.22	2.71	−.06
Indirectly bullied	6.09	2.21	.32**
Cyberbullied	3.67	2.09	.18
Duration of bullying	1.48	.76	.29
Bulied after education	2.24	1.76	.13

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

It can be observed that age, gender, and experiencing indirect bullying each made significant, unique contributions to trust level scores found by the PTS.

Taken together, the nine predictor variables accounted for 29% of the variance ($R^2 = .29$), and significantly predicted changes in trust levels scores when using the PTS, $F(9, 100) = 4.56$, p 0.001.

Summary

The first two trust scales were significantly correlated to all nine of the variables. The other two scales were significantly correlated with five variables each. When taken together however, the nine variables did significantly predict the changes in trust levels for all four of the scales. As a subtype, indirect bullying showed the most significant individual contributions to predicting trust levels, yielded significant beta values in all four regressions. In addition, gender also yielded significant beta values with all four scales.

Thematic analysis

The final stage of the questionnaire consisted of the two open-ended questions, which were: 'Why do you think you trust people to the level that you do?' and, 'Do you believe bullying could have an effect on how victims view strangers? Why?' The open-ended questions aimed to provide further insights to the answers received on the standardised scales. Responses were analysed using thematic analysis utilising an inductive approach, as there was little predetermined theory to provide pre-existing framework for participants' answers'. For the two questions, 65 participants gave responses. Once analysis was complete, three main themes emerged from the responses.

Figure 1
A Thematic Map of Themes from Participant's Responses to Open-Ended Questions
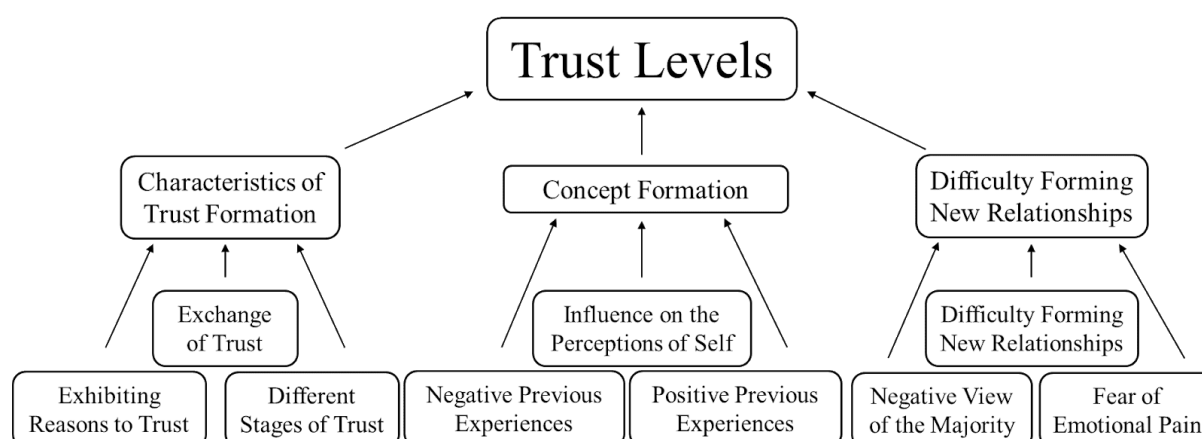
The first main theme discovered was *characteristic of trust formation*. The theme was constructed to highlight that trusting another individual is a process: there are varying stages and exchanges, which can either strengthen or destroy trust levels. 'I do give people a certain level of trust in meeting them which they can break or strengthen,' (Participant 47).

Furthermore, some contrast in positivity emerged throughout the analysis, whereas some individuals offer trust immediately; others discussed starting at zero and having new acquaintances build up trust through trustworthy actions. Participant 6, when explaining the low level of trust reported, stated that it was because 'I've never had a reason to trust anyone'.

The second main theme to be discussed is that of *concept of trust formation*, which encompasses how previous experiences and emotions can develop a preconceived notion of how individuals are likely to act in the future. 'My natural inclination is to trust people… personal experiences of various forms of abuse by a variety of people as a child… eroded that,'

(Participant 12). It was apparent that multiple past experiences relied on 'past experiences', for example Participants 4, 17, 21, 33, 41, 51, and 65.

The final main theme that emerged was *difficulty forming new relationships*. 'I am unable to accept a new person in my life as I am afraid they will just hurt me in some shape or form,' (Participant 31). The theme actually contains the largest amount of supporting quotes found in individuals' responses, highlighting the importance and possible influence over how trusting one is. One strongly apparent aspect in the responses is that the individuals were fearful of experiencing emotional pain again from new individuals. For example, 'I don't want to be hurt by others,' (Participant 2).

DISCUSSION

The aim of this study was to investigate which aspects of bullying in childhood and adolescence would have an effect on adult trust levels. The childhood experiences used were age, gender, how much the individual enjoyed school, experiencing physical, verbal, indirect, or cyberbullying; duration of bullying attacks, and whether the individual continued to be bullied after leaving compulsory education. The results indicated that when taken together, the predictor variables significantly explained changes in trust levels for all the four scales used. Accordingly, our first hypothesis: Being a victim of bullying during compulsory education will have an effect on an individual's trust levels during adulthood, is accepted.

It is also worth noting that experiencing 'indirect bullying' was the only facet of bullying to make a single significant contribution to all four trust measures. Therefore, our second hypothesis: Different forms of bullying will have varying predictive strengths of an individual's trust levels, is also accepted. Although there is no scientific supportive research on this, such a finding may offer an explanation as to why females have been found to exhibit more internalising symptoms than males (Wimmer, 2009). As females are more likely to experience indirect bullying than males, who more often experience physical bullying (Wimmer, 2009), it is likely that there would be greater negative effects on females due to the type of bullying experienced. The finding that indirect bullying offered the greatest predictive value for varying trust levels could also inform bullying interventions. As it is apparent that general bullying interventions have had little effect on prevalence (Analitis et al., 2009; Nansel et al., 2001), targeting indirect bullying specifically could act as a stepping stone to reducing bullying on the whole. Lowering levels of indirect bullying could also increase a victim's ability to create social networks aiding in keeping rates low, which could also have implications for counselling.

The current study also found gender to be a significant predictor of trust scores for all four scales used, which is consistent with the fact that males and females are prone to different types of bullying (Wimmer, 2009). Furthermore, this finding is supported by Rotenberg et al., (2002), who found that generally, females have a significantly higher level of trust belief in same-sex peer than males. It is possible that either this higher trust belief remains throughout victimisation, or that there is greater effect on females due to the higher trust belief prior to having experienced bullying. Future research could benefit from looking more in depth on the role of gender during victimisation and its consequent effect on later trust levels.

Participant's age showed significant predictive strength for trust levels for three of the scales used. It appears from the results that the effect of bullying victimisation can have on adult trust levels does decrease partially over time. This finding is supported by Sund (2004), who also found that the negative effects linked to bullying decrease as individuals age.

The thematic analysis performed on the responses to the two open-ended questions did offer insight into how individuals' perceived levels of trust are affected. These perceptions not only

applied to victimisation but trust development as a whole. Characteristics of 'trust formation' primarily refer to general trust construction. 'Concept formation' envelops the cognitive process where individuals use previous experience and perceived sense of self to predict the outcomes of future events (Mullally & Maguire, 2014), such as individuals breaking trust in the future due to bullying being perceived as a breach of trust in others. The importance of previous experience can occasionally be overlooked when questioning the continuance of negative symptoms of bullying. Yet, the most influential theme that emerged from the analysis did appear to be 'difficulty forming new relationships'. This theme appears the most relevant to victimisation, where participants did report being fearful of further emotional pain and an 'updated' negative view of the general public. Whether this was due to the phrasing and direction of the questions asked is unclear, therefore possible future research should ask more general questions around the topic. However, difficulty forming new relationships has been linked to low trust levels (Schäfer et al., 2004), with multiple quotes supporting this idea.

CONCLUSION

Although full anonymity was ensured to participants, a criticism of using self-report measure is the possibility that responses could be affected by social desirability bias, when an individual responds in a way that is socially acceptable instead of being entirely accurate. Furthermore, self-report relies on the recall or perceptions of the participant, and it is entirely possible that the memory recall of participants is not always reliable (Dudukovic et al., 2004). However, Brewin et al., (1993) did show that for emotionally charged memories, such as experiencing victimisation, recall is significantly more reliable and accurate. In order to address this problem of reliability of recall, further research could be supplemented by research adopting a longitudinal design.

Bullying victimisation, taken as whole, does appear to have an effect on individual's trust levels during adulthood, and is supported by both the quantitative and qualitative analysis. In particular, indirect bulling, gender, and age appear to have the strongest individual predictive strengths in relation to trust levels found by pre-existing and established trust scales. Both conclusions could carry implications in both the development of future bullying interventions and counselling techniques with victims of bullying.

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