#### **ORIGINAL PAPER**



# What is Known About the Role of Friendship in Adolescent Self-Harm? A Review and Thematic Synthesis

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#### Abstract

**Background** Self-harm is a significant public health concern during adolescence. Most cases of self-harm do not come to the attention of professional services, however, where adolescents do disclose self-harm, the majority confide in their friends.

**Objective** Therefore, more needs to be understood about the protective function and risks friends may pose in the context of self-harm and personal implications of this behaviour. This review synthesises current research in this area.

**Methods** A systematic search of five healthcare databases was conducted, yielding nine papers, comprising of ten studies. Most studies recruited participants from schools. Papers were appraised using three quality appraisal tools relevant to study designs.

**Results** The synthesis found that friends act as first-line support for adolescents who selfharm, demonstrating emotional and physical availability and acting as a vehicle for terminating this behaviour and disclosure to adults. However, supporting friends who self-harm can be all-consuming, negative peer dynamics may perpetuate self-harm and group and personal vulnerability factors may increase risk of friends engaging in self-harm themselves. Conclusions: There are some indications that adolescents who self-harm may selfselect friendship groups in which this behaviour is known to occur. The synthesis suggests adolescents need to be empowered to support peers who self-harm through mental health promotion and awareness-raising training at universal levels (e.g., whole school approaches). Leads for mental health in schools may also be important contact points for adolescents to disclose concerns to and seek personal support. Further practice and research implications are considered.

Keywords Friendship · Self-harm · Adolescence

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# Introduction

Self-harm usually begins during adolescence and is a significant public health concern among this age group (Lewis & Heath, 2015). Self-harm has been conceptualised as behaviours that represent unmet needs and a way to deal with emotional pain (Wood, 2009). Thus, adverse life events, such as childhood abuse, increase the risk of self-harm (Nock, 2009b). Self-harm constitutes a range of methods that include cutting, banging or scratching one's own body and ingesting toxic substances or objects (Mental Health Foundation, 2006), with cutting being the most common form of self-harm amongst adolescents in the community (Madge et al., 2008).

Self-harm is often a covert behaviour (Whitlock, Eckenrode and Silverman, 2006) with the majority of cases not reaching the attention of medical services (Kidger et al, 2012). Barriers to disclosure include fear of stigma, confidentiality being breached (Fortune et al., 2008a) and being labelled as attention-seeking (Heath et al., 2011). Of those adolescents who do disclose, the majority confide in friends (Fortune et al., 2008b). This appears commensurate with adolescence as a developmental stage associated with separation and individuation from parents (Blos, 1967). As individuals become more autonomous from parents, contact with peers increases (Brown, 1990) and friends, rather than parents are pursued as sources of companionship, intimacy and emotional support (Bukowski et al., 1998).

Newman and Newman (1976) discriminate two stages of adolescence with 'early adolescence' (aged 10–18) being characterised by the pursuit of peer group membership and close friendship bonds as well as greater vulnerability to peer approval. The second stage of 'late adolescence' (aged 18–21) on the other hand, is characterised by increased autonomy from the family and the development of personal identity. This review focuses on the period of 'early adolescence'. Adolescents often base their self-worth on approval from their peers (Harter et al., 1996) with their behaviour being influenced by socialisation with peers. An association has been found between reports of adolescent females' own self-harm and recent self-harm by friends (Hawton et al., 2002). Studies also suggest there may be social motivators for self-harm in adolescence that are consistent with characteristics of this developmental stage. These include the pursuit of increased prestige (e.g., Walsh, 2006) or to achieve group membership, social acceptance or increases in intimacy (e.g., Laye-Gindhu & Schonert-Reichl, 2005; Muehlenkamp et al., 2013; Walsh, 2006). Self-harm may also function to obtain attention or care or influence the behaviour of others (Ghaziuddin et al., 1992; Walsh, 2006). Perceived social norms of a given behaviour may also be of import to self-harm, where adolescents may be more likely to engage in self-harm if they perceive that lots of others are doing so, in order to conform to a desired group and therefore achieve a favourable sense of self (Heilbron & Prinstein, 2008).

It can be conjected that there may be implications for adolescents who act as confidantes for friends who are self-harming, as well as through being exposed to self-harm through socialisation with peers, given the importance placed on peer group membership and identity in adolescence. It is also possible that friends of adolescents who selfharm may act as important protective factors, for example, to facilitate help-seeking with professionals (Idenfors et al., 2015).

However, research to date, has largely focused on the impact of exposure to selfharm in adolescence in specialist settings such as psychiatric inpatient contexts with an emphasis on risk of contagion (e.g., Taiminen et al, 1998). There is a need to understand more about the experiences of adolescents in the community in typical peer group circles and both the protective functions and risks friendship can pose in the context of self-harm.

#### **Rationale and Aims of the Review**

Adolescents who self-harm most commonly confide in friends (Fortune et al., 2008b). In some cases, being in the role of the confidante, whilst having a positive impact on friendship may nonetheless be at the expense of one's own emotional well-being (Smith, 2015). It could be conjectured the emotional toll on friends may be greater in the case of more distressing disclosures such as self-harm and its associated risks, given it is the strongest predictor of suicide (Sakinofsky, 2000). Further, self-harm has been conjectured to have a social function, aimed at influencing peers, or achieving a sense of acceptance and personal belonging from them, thus enhancing the quality of the relationship (Snir et al., 2018) and self-worth. Given many cases of self-harm may not come to the attention of professional services, peers may be privileged holders of such information, so it is important to know more about the impact of self-harm on friendship in community settings. This includes considering the ways in which friendship may be protective for adolescents who self-harm. First line interventions for mental health (e.g., Youth Aware of Mental Health (YAM) project) are now placing more emphasis on peer support and equipping young people themselves to know how and where to find professional help, if needed.

The primary aim of this review is to better understand how adolescents experience having a friend who self-harms in terms of the impact of being confided in, exposed to or aware of this behaviour, the roles friends take on in response to having friends who self-harm and how friends' self-harm influences their own behaviour. A secondary aim is to inform future research, prevention and intervention programmes at both the school and community levels. Given previous research, it is hypothesised that friends of young people who self-harm are likely to be providing key support to them, possibly at a cost to themselves.

# Method

#### Search Strategy

An unlimited search of the International Prospective Register of Systematic Reviews (PROSPERO) and Cochrane database was undertaken to determine whether any reviews had already been published in this area, which yielded no results. Title and abstract searches were undertaken by the first author using five databases: PsycInfo, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Embase, Medline and Web of Science between 7th May and 8th June 2018. Search terms (Table 1) were determined by examining definitions used in existing literature and through discussion with an academic supervisor.

The only limiter was that papers needed to be in the English Language. To minimise publication bias, a search of the grey literature was undertaken using the EThOS database. No theses were identified that met inclusion criteria. The PRISMA diagram (Fig. 1) outlines the search strategy and Table 2 sets out the eligibility criteria for studies included in the review.

Iable I Database search terms					
"Adolescent"	"Friend"		"Self-harm"		"Impact"
adolescent*	friend*		"self harm*"		impact*
<b>OR</b> adolescence	<b>OR</b> friendship*		<b>OR</b> "self injurious"		<b>OR</b> role
<b>OR</b> teen*	<b>OR</b> "social relationship""		<b>OR</b> "self injury"		<b>OR</b> influence*
<b>OR</b> teenager*	<b>OR</b> peer*		<b>OR</b> "self injuries"		<b>OR</b> effect*
<b>OR</b> "young person" AND	OR ''peer group''	AND	<b>OR</b> "self mutilate" A	AND	<b>OR</b> response*
<b>OR</b> "young people"			<b>OR</b> "self mutilation"		<b>OR</b> reaction*
<b>OR</b> 'youth*"			<b>OR</b> "self poison"		<b>OR</b> experience*
<b>OR</b> "juvenile"			<b>OR</b> "self poisoning"		
			<b>OR</b> cutting		<b>OR</b> support
			<b>OR</b> "self inflicted wound"		<b>OR</b> communication
					<b>OR</b> dynamic*
					<b>OR</b> "social model#ing"
					<b>OR</b> contagion
					<b>OR</b> exposure
					<b>OR</b> coping
					<b>OR</b> resilience
					<b>OR</b> process*

Table 1 Database search terms

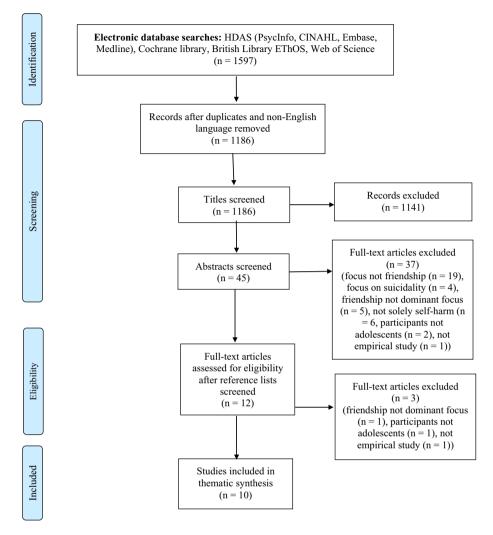


Fig. 1 PRISMA flow chart showing search process (Moher, Liberati, Tetzlaff & Altman, 2009)

Database searches yielded 1186 papers after duplicates and articles not in the English Language were removed. 1141 articles were excluded at title screen with a further 37 articles excluded at the abstract screening level. 8 papers were screened at full text level. Hand searching of reference lists of these papers identified 4 further potentially eligible papers. Three papers were excluded at full text screen, leaving 9 articles eligible for inclusion comprising of 10 studies.

Table 2 Eligibilit	Table 2 Eligibility criteria for inclusion in review	
Criteria	Inclusion	Exclusion
Population	Young people aged 10–19; in line with the World Health Organisation (WHO) definition of adolescence (WHO, 2018) and overlapping with Newman and Newman's (1976) conceptualisation of early adolescence	<10 years or > 19 years
Target behaviour	Target behaviour Self-harm as defined by Nock (2009a) i.e., the deliberate destruction of one's own body Articles focusing on suicidality or suicidality as well as self-harm tissue <i>without suicidal intent</i>	Articles focusing on suicidality or suicidality as well as self-harm
Aim or objective	Aim or objective Examination of implications for friendship/friends in relation to adolescents who self- harm	Examination of implications for other significant relationships (e.g., parents) unless the paper considered other relationships but the focus was predominantly on friendship and the group findings were easily distinguishable
Publication type Language	Publication type Peer reviewed research studies Language English	Theoretical papers, books chapters, dissertations

## **Data Extraction**

The following data were extracted from each study: author, year, aims, study design and analysis, sample, main findings, implications and limitations. See Table 3 for an overview of studies.

## **Quality Assessment**

Three quality appraisal tools were used to evaluate the studies commensurate with study design. Qualitative studies were appraised with the Critical Appraisal Skills Programme (CASP, 2018) checklist for qualitative research and quantitative studies with the Downs and Black (1998) checklist; chosen as they are both recommended by NICE for developing their guidelines (NICE, 2015). The mixed-method study was appraised with the Evaluative Tool for Mixed Method Studies (Long, 2005); this was chosen as it was developed based on already established checklists for quantitative research (Long, Godfrey, Randall, Brettle and Grant, 2002) and qualitative research literature (Long & Godfrey, 2004). Each study was scored by following a scoring system in order to arrive at an overall Quality Rating (QR). Qualitative studies were scored out of 20, quantitative out of 38 and the mixed-method study out of 14. Studies were awarded 2 points if a criteria was fully met, 1 point if partially met or 0 if not met or unable to tell. Scores ranging between 76 and 100% were rated 'very good', those between 51 and 75% were rated 'good' and those that were 50% or below were rated 'below average'.

## **Data Synthesis**

To synthesise the results from all the studies, a thematic synthesis was conducted using the guidelines by Thomas and Harden (2008). Although this method is primarily for qualitative research, qualitative and quantitative findings can be combined and synthesised together (The Joanna Briggs Institute, 2014). Furthermore, this method was developed to answer review questions about need (Ring, Ritchie, Mandava and Jepson, 2010) and was therefore deemed appropriate for this review. Thematic synthesis aims to identify recurring themes in the literature through a process of descriptive synthesis and development of analytical themes, from which conclusions can be drawn in relation to a review question (Ring et al., 2010). Therefore, the findings of each study were initially coded based on descriptions to generate 'descriptive' themes. This was completed through line by line coding of the text for study findings to try to capture the meaning and content of each sentence. This was completed for each study, developing new codes when necessary. Furthermore, all text where codes were applied was re-read in order to check the consistency of the interpretation and to see if any additional coding was needed. Following this, codes were grouped codes together based on similarities and differences to produce sub-themes. Emerging patterns were then looked for to capture the meaning of the groups of these initial codes, which generated 'analytical' themes (main themes). Main themes were determined if they were supported by at least three studies.

# Reflexivity

As part of the assessment of the qualitative studies, reflexivity was an important marker for the quality of those studies; therefore it is important for the reviewer (the first author) to reflect on their own biases and experiences in relation to the review process. For example,

Table 3 Overview of studies included		in the review					
Study	Aims	Sample	Methodology	Analysis	Key findings	Implications	Limitations and qual- ity score
Yip et al. (2002)	To explore peers influences on, and response to, adolescents' self- cutting behaviour	n = 3 (2 female, 1 male) students aged 14–16 years from three schools in China	Qualitative Semi-structured interviews	Grounded Theory (GT)	Peers can be both a stabilising and a risk factor in relation to self- cutting	Evidence of positive and negative peer influence peer on self-cutting behaviours, e.g. peers a source of communication but also a source of frustration	<ul> <li>Method of analysis not appropriate (pre- determined ideas and no evidence of theoretical sampling/ data saturation)</li> <li>Very small sample size</li> <li>Lack of reflexivity QR = below average</li> </ul>
Claes et al. (2010)	To investigate the association between self- harm, self- concept and acquaintance with self-harming peers	<i>n</i> = 150 (90 female, 60 male) students (mean age 15.56 years) from one school in Belgium	Quantitative NSSI Subscale (Sansone et al., 2006) of Dutch version of Self- Harm Inventory (SHI; Sansone, Wiederman & Sansone, 1998); Self-Description Questionnaire- III (SDQ-III; Marsh, 1989: Short Dutch ver- sion; Simons & Simons, 2002); Questions about friends	MANOVA; Chi square; Correlation	Self-harming students were more likely to know others who self-harmed and students who knew more peers who self-harmed had lower self- esteem and a more negative self-concept (for non-academic areas)	Relationship between peer exposure and own self-harming behaviour, related to having a nega- tive self-concept	<ul> <li>Sample possibly biased</li> <li>Not longitudinal</li> <li>Participants asked about 'acquaint- ances' as opposed to 'friends' QR = good</li> </ul>

Table 3 (continued)							
Study	Aims	Sample	Methodology	Analysis	Key findings	Implications	Limitations and qual- ity score
Prinstein et al. (Study 1, 2010)	To examine whether adolescents' own engagement in self-harm would be associated with their friends' engagement in self-harm over time	To examine whether $n = 377$ (189 female, adolescents' own 187 male) students engagement in aged 11–15 years self-harm would from one school in be associated the USA with their friends' engagement in self-harm over time	Quantitative and longitudinal (two time points with a one year interval) Peer nomination procedure (Parker & Asher, 1993); NSSI rating scale; Children's Depres- sion Inventory (CDI; Kovacs, 1992)	MANOVA; Correlation; Hierarchical multi- ple regression	Best friends' engagement in self-harm at baseline was a significant predic- tor ofadolescents' own self-harm one year later, for females and younger students	Females and younger ado- lescents more susceptible to the influence of their best friends' engagement in self-harm	- Small effect sizes QR= very good
Prinstein et al. (Study 2, 2010)	To examine whether adolescents' perceptions of their friends' depressive and self-injurious thoughts and behaviours would be associated with their own engage- ment in self-harm over time	To examine whether $n = 140$ (101 female, adolescents' 39 male) psychiat- perceptions of ric inpatients aged their friends' 12–15 years from depressive and one facility in the self-injurious USA thoughts and behaviours would be associated with their own engage- ment in self-harm over time	Quantitative and longitudinal (three time points with nine month intervals) NSSI rating scale; Peer Behaviour Inventory (PBI; Prinstein et al., 2001); Children's Depres- sion Inventory (CDI; Kovacs, 1992)	CoTrrelation; <i>T</i> -tests; Chi square; Path analysis	Significant, recipro- cal, longitudinal associations between percep- tions of friends' depressive and self-injurious thoughts and behaviours and adolescents' own engagement in self-harm, for females	Peer selection and socialisation effects in relation to self-harm for females	<ul> <li>Sample possibly biased</li> <li>Not all reasons given for attrition QR = good</li> </ul>

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Study	Aims	Sample	Methodology	Analysis	Key findings	Implications	Limitations and qual- ity score
You et al. (2013)	To examine the associations of peer selection and socialisation with adolescent self- harm over time, using the best friend and the friendship group as predictors	<i>n</i> = 5787 (3137 female, 2650 male) students aged 12–18 years from eight high schools in China	Quantitative and longitudinal (two time points with a six month interval) NSSI rating scale; Impulsivity Section of Revised Diag- nostic Interview for Borderlines (DIB-R; Zanarini et al., 1989); Depression Sub- scale of Short Depression Anxi- ety Stress Scale (DASS21; Taouk et al., 2001); Peer nomination procedure	STocial network analysis; T-tests; Chi square; ANOVA; Correlation; Logistic and multi- ple regression; ANCOVA	After controlling for effects of depressive symp- toms and mala- daptive impulsive behaviours, adolescents' best friends' engage- ment in self-harm predicted adolescents' own engagement in self-harm over time Adolescents' friendship group self-harm status predicted their own self-harm frequency	Evidence of peer socialisation and selection effects and influence of a best friend on self-harm, regard- less of depressive symptoms and impulsivity	<ul> <li>Proportion of population who took part not stated</li> <li>Participants may overlap with You et al. (2016) QR = good</li> </ul>

Table 3 (continued)							
Study	Aims	Sample	Methodology	Analysis	Key findings	Implications	Limitations and qual- ity score
Giletta et al. (2013)	<ul> <li>jiletta et al. (2013) To examine whether n= 348 (191 adolescents' female, 15 self-harm may students at be predicted by 14–18 year frieteds' impulsiv- three schoo ity and depres- the USA sive symptoms within friendship networks</li> </ul>	n = 348 (191 female, 157 male) students aged 14–18 years from three schools in the USA	<ul> <li>= 348 (191 Quantitative and female, 157 male) longitudinal (four students aged time points with six 14–18 years from month intervals) three schools in Peer nomination the USA Peer nomination procedure; Mood and Feeling Questionnaire (Costello &amp; Angold, 1988); Barratt Impulsive- ness Scale (BIS-11; Patton et al., 1995)</li> </ul>	Stochasti based mo	Chi square; After accounting 2 actor- for individual effects, friends' depressive symp- toms predicted adolescents' self- harm over time Friends' impulsiv- ity predicted adolescents' self- harm for males	Evidence of influence tpeer influence within friendship networks with higher depres- sive symptoms and influence of impulsivity for males	<ul> <li>Proportion of population who took part not stated</li> <li>Low statistical power</li> <li>QR= very good</li> </ul>

Table 3 (continued)							
Study	Aims	Sample	Methodology	Analysis	Key findings	Implications	Limitations and qual- ity score
You et al. (2016)	To examine the indirect peer influence effects of friendship group impulsivity on adolescents' self-harm and the moderating effects of friendship group impulsivity on the relation- ship between depression and self-harm	n = 1701 (1147 Quantitative and female, 554 male) longitudinal (two students aged time points with a 12–18 years from month interval) eight schools in NSSI rating scale; China NSSI rating scale; China China China SSI rating scale; Anxiety Stress Sc (DASS21; Taouk et al., 2001); Negative Urgency and Premeditation Subscales of the UPPS Impulsive Behaviour Scale (Whiteside & Lynam, 2001); Peer nomination procedure	Quantitative and STocial net longitudinal (two analysis; time points with a 6 T-tests; month interval) Correlation NSSI rating scale; Hierarchics Depression Subscale modelling; of Short Depression Chi square Anxiety Stress Scale (DASS21; Taouk et al., 2001); Negative Urgency and Premeditation Subscales of the UPPS Impulsive Behaviour Scale (Whiteside & Lynam, 2001); Peer nomination procedure	Quantitative and       STocial network         ongitudinal (two       analysis;         ime points with a 6       T-tests;         month interval)       Correlation;         NSSI rating scale;       Hierarchical linear         Depression Subscale       modelling analyses;         Anxiety Stress Scale       Modelling analyses;         Anxiety Stress Scale       Chi square         Anxiety Stress Scale       Chi square         DASS21; Taouk       Chi square         CPASS21; Taouk       Chi square         Moregative Urgency       Moregative Urgency         Subscales of the       CPPS Impulsive         Behaviour Scale       Vinteside &         Vinteside &       Lynam, 2001);         Peer nomination       Procedure	Friendship group impulsivity predicted adoles- cents' self-harm over time and strengthened the relationship between adoles- cents' depression and later self- harm	Impulsive friend- ship groups have greater peer influence effects on adolescent self-harm	<ul> <li>Proportion of population who took part not stated</li> <li>Participants may overlap with You et al. (2013)</li> <li>QR = good</li> </ul>

Table 3 (continued)							
Study	Aims	Sample	Methodology	Analysis	Key Findings	Implications	Limitations and qual- ity score
Berger et al. (2017) To identify adoles- cents' views of how peers and online friends car help young peopl who self-injure ferences accord- ing to age, gender and exposure to self-harm	To identify adoles- cents' views of how peers and online friends can help young people who self-injure and examine dif- ferences accord- ing to age, gender and exposure to self-harm	<i>n</i> = 2637 (1789 female, 848 male) students aged 12–18 years from 41 schools in Australia	Mixed methods Part A of Self- Harm Behaviour Questionnaire (Gutierrez, Osman & Barrios & Kopper, 2001); Questions about friends	Chi square; Thematic Analysis (TA)	Seven themes identi- Friends are a key fied. Younger par- ticipants were more for adolescents likely to suggest talk who self-harm and listen, females and communica were more likely to tion considered have a friend who self-injured and to suggest friends talk and listen	Friends are a key source of support for adolescents who self-harm and communica- tion considered as the primary role	- Sample not repre- sentative QR = good
Fisher et al. (2017)	To explore how adolescent females respond to and support a friend engaging in self-harm, the impact of this on their well-being and friendship and what support they need	<i>n</i> =5 (all female) students aged 15 years from one school in New Zealand	Qualitative Semi-structured interviews	Interpretative Phenomenolo-gical Analysis (IPA)	Four themes identi- fied. Supporters experienced various levels of distress. For some the sup- port role formed an important component of their identity	Support role can have positive and negative consequences for the friends of adolescents who self-harm, e.g. role provided a sense of satisfac- tion but also led to worry and distress	- Lack of reflexivity from additional authors QR = very good

it was noted that due to the first author having experience of working with young people who self-harm in a range of settings, the finding that friendship groups can increase personal vulnerability of self-harm was not surprising. Although biases such as these cannot be removed, to ensure rigor within the review process, the reviewer checked the consistency of their interpretations of themes by re-reading all the text where codes were applied.

# Results

## **Overview of Included Studies**

The nine peer-reviewed articles described a total of 10 studies. Although no date limiters were applied to the search, most of the studies were recent, published between 2002 and 2017. The articles consisted of two qualitative studies (Fisher et al., 2017; Yip et al., 2002), one mixed methods study (Berger et al., 2017) and seven quantitative studies, six of which were longitudinal with follow-up periods ranging from six to 18 months. In all but one study, participants were recruited from schools and were predominantly female.

#### Quality Appraisal

Quality appraisals of the studies rated three studies as 'very good' (Fisher et al., 2017; Prinstein et al. (study 1), 2010; Giletta et al., 2013), six as 'good' (Prinstein et al. (study 2), 2010; Claes et al., 2013; Hasking et al., 2013; You et al., 2013; You et al., 2016; Berger et al., 2017), and one as 'below average' (Yip et al., 2002).

Aims were clearly stated in the included studies and ethical issues were appropriately addressed in the majority of cases, with the exception of Yip et al (2002), who made no mention of ethical approval or appeared to consider issues of risk and harm. This was particularly concerning given that abuse was uncovered in the research in relation to one participant, with no mention to if and how this was addressed.

In the quantitative studies, with the exception of Giletta et al., (2013) no studies mentioned power or included power calculations, though (Prinstein et al. (study 1), 2010) highlighted that effect sizes were small (Prinstein et al. (study 1), 2010). Despite this limitation, the majority of studies evidenced methods to ensure credibility of their findings. All quantitative studies clearly described the self-report measures used and provided internal consistency scores for standardised questionnaires. The majority of these scores ranged from acceptable to excellent; however, three of the measures included some questionable scores (SDQ-III, Claes et al., 2010; Impulsivity Section of DIB-R, You et al., 2013; PBI, Prinstein et al. (study 2), 2010).

#### Aims and Objectives

The main aim in half of studies was to determine whether adolescents own engagement in self-harm was associated with friends' engagement in the behaviour (Prinstein et al. (study1), 2010; Prinstein et al. (study 2), 2010; Claes et al, 2010; Hasking et al., 2013; You et al., 2013). Two studies focused on indirect peer influence in relation to self-harm by examining the role of moderating factors, including friends' impulsivity (Giletta et al., 2013; You et al., 2016). Other studies aimed to identify adolescents' views of how to help their peers who self-harm (Berger et al., 2017), to understand how friends respond to peers who self-harm (Yip et al., 2002) and how they cope with supporting peers with self-harm (Fisher et al., 2017).

#### Sampling and Recruitment

Sample sizes ranged from three (Yip et al., 2002) to 5787 (You et al., 2013). Three studies were conducted in China (Yip et al., 2002; You et al., 2013, 2016), three in the United States of America (USA; Prinstein et al. (study 1), 2010; Prinstein et al. (study 2), 2010; Giletta et al., 2013), one in Belgium (Claes et al, 2010), two in Australia (Berger et al., 2017; Hasking et al., 2013) and one in New Zealand (Fisher et al., 2017). The age of participants ranged from 11 to 19 years and the number of female participants was higher in all except one study (Prinstein et al. (study 1), 2010), in which gender balancing was evident. All studies recruited from schools with the exception of one, which used a psychiatric inpatient facility (Prinstein et al. (study 2), 2010).

How representative samples were of the populations they were drawn from was not straightforward to ascertain in three studies (Claes et al., 2010; You et al., 2013, 2016). Claes et al. (2010) claimed the sample selected was representative of the student body; however as this was selected by the school principal recruitment may have been subject to influences of bias.

Several studies reported difficulties in conducting research on this topic in schools, which meant participation was limited to certain schools (Berger et al., 2017; Hasking et al., 2013; Yip et al., 2002) or to certain pupils (Fisher et al., 2017). In the case of Berger et al. (2017), a large sample was achieved but this was not representative of the population; a limitation which was also highlighted by the authors.

## Study Design

Mixed-method and quantitative studies largely relied on use of self-report measures. Seven studies included designs where data was gathered from friends themselves, either by directly asking them (Berger et al., 2017; Fisher et al., 2017; Yip et al., 2002) or through a peer nomination procedure, whereby participants nominated their closest friends from a list of class mates, whose results on the self-report measures could then be used to identify whether they too self-harmed (Prinstein et al. (study 1), 2010; You et al., 2013; Giletta et al., 2013; You et al., 2016). The remainder of studies relied on adolescents' own perceptions of their friends and their behaviours by either directly asking them if their peers engaged in self-harm (Claes, et al., 2010; Hasking et al., 2013), or through the use of a standardised measure (Peer Behaviour Inventory; Prinstein et al. (study 2), 2010). The majority of studies used their own rating scale to measure selfharm rather than a standardised measure; however one study mentioned the internal reliability of this scale was good (You et al., 2013). Furthermore, studies which considered moderating factors tended to use measures with good psychometric properties, such as the Children's Depression Inventory (Prinstein et al. (study 1), 2010; Prinstein et al. (study 2), 22010010). All longitudinal studies included sufficient follow-up periods and reported reasons for attrition, with the exception of one where detail was more limited (Prinstein et al. (study 2), 2010).

#### **Definitions Used in Studies**

Self-harm is termed in many different ways in the literature, including 'deliberate selfharm' (DSH), 'non-suicidal self-injury' (NSSI) and 'direct self-injurious behaviours' (D-SIB). The majority of the studies included in this review referred to self-harm as 'non-suicidal self-injury' (NSSI): the deliberate destruction of one's own body tissue without suicidal intent (Nock, 2009a) (Claes, et al., 2010; Hasking et al., 2013; Prinstein et al. (study 1), 2010; You et al., 2013; Giletta et al., 2013; You et al., 2016; Berger et al., 2017; Fisher et al., 2017). However, in study 2 by Prinstein et al. (2010), although self-harm was referred to as NSSI, suicidality was also included and in the study by Yip et al. (2002), only self-cutting was investigated. Although not all research includes ingestion as a self-harming behaviour, the reviewer has referred to this as a method of self-harm, though it is unclear whether the studies in this review included this under their definition.

Studies had different concepts of what constituted a 'friend'. For example, some studies referred to 'peers' (Yip et al., 2002; Prinstein et al. (study 2), 2010), others to 'friends' (Prinstein et al. (study 1), 2010; Hasking et al., 2013; You et al., 2013; Giletta et al., 2013; You et al., 2016; Berger et al., 2017) and one study used both these terms (Fisher et al., 2017). Furthermore, one study used the term 'acquaintances' (Claes et al., 2010), which potentially implies something quite different.

#### Outcomes

Talking and listening to adolescents who self-harm was the most common view about how friends could help (Berger et al., 2017). Friends provided stability, however they were also a risk factor (Yip et al., 2002) and the supportive role was found to have negative consequences as well as positive (Fisher et al., 2017). In addition, variables related to friendship that were found to predict or influence adolescents' engagement in selfharm included friends' actual or perceived engagement in this behaviour (Prinstein et al. (study 1), 2010; Prinstein et al. (study 2), 2010; Claes et al., 2010; Hasking et al., 2013; You et al., 2013), friends' depressive symptoms (Giletta et al., 2013) and impulsivity in friendship groups (You et al., 2016). Factors found to mediate the influence for risk of self-harm amongst peers included adverse life events (Hasking et al., 2013), negative self-concept (Claes et al., 2010), age, gender and the quality of the relationship (Prinstein et al., (study 1), 2010).

#### Synthesis of Findings

The thematic synthesis of results identified two main themes, with two sub-themes in each. The first: friends as first-line support, with sub-themes: being available, it was all-consuming and friends as vehicles for ending self-harm and disclosure to adults. The second: the downsides, with sub-themes: self-harm as a 'release' from or communication tool for interpersonal tensions and friendship groups may be selected around selfharm or increase personal vulnerability for self-harm. They are discussed below.

# **Theme 1: Friends as First-Line Support**

This theme was related to friends often being the main source of support for adolescents who self-harm, representing the people adolescents most commonly disclose self-harm to. Three of the papers reviewed supported this theme (Berger et al., 2017; Fisher et al., 2017; Yip et al., 2002). Furthermore, forming positive peer relationships was a key idea adolescents suggested to help young people who self-harm, indicating adolescents believe that having good relationships with peers may act as a protective factor against self-harm.

# **Being Available**

This subtheme was supported by three studies (Berger et al., 2017; Fisher et al., 2017; Yip et al., 2002) and related to friends of adolescents who self-harm needing to demonstrate physical and emotional availability. This included being available to talk, listen and discuss problems, providing emotional support, physical comfort and reassurance. Friends also perceived this to be the most helpful way adolescents who self-harm could be helped, either in established friendships or via online friends.

"I tried every means to get her to share her negative feelings. I told her if she had any frustration, share it with me. I tried my best to comfort her... Sometimes, we had a long chat at school, sometimes by phone, and sometimes even by letters." (Yip et al., 2002, p.393)

"Ask how they are and talk about their problems with them." (Berger et al., 2017, p.8)

"...she said that if I wasn't there, she probably would have died...because it would have been so much harder on her." (Fisher et al., 2017, p.149)

# It was all-Consuming

This subtheme was supported by two studies (Fisher et al., 2017; Yip et al., 2002) and reflected the negative implications of being in a supportive role and friends' experiences of needing to prioritise their friend's problems. This could feel all-consuming, bringing with it distress, high levels of responsibility and meaning friend's own lives and needs were subjugated.

"I felt anxious and frustrated whenever I saw B tried to cut herself." (Yip et al., 2002, p. 392)

"You know once, A cut herself and ran away from home. His father rang me and told me to encourage A to go home. I did so." (Yip et al., 2002, p.394)

"...it made my whole life just kind of intoxicated with this kind of worry about this person" (Fisher et al., 2017, p. 150)

"I felt like I couldn't partake in other things or be friends with other people because she was hurting herself and I felt like I owed my attention, like all my attention had to be on her always." (Fisher et al., 2017, p.150)

"I kind of forgot about what was going on in my life and made them [friends self-harming] more important because I felt like that my problems were slim to nil to what their big problems were" (Fisher et al., 2017, p.151)

Despite this, there were some benefits of this role for the supporters, including providing a social connection, a sense of satisfaction and a way to deflect from one's own difficulties.

"I've always been a fixer... I don't like people being uncomfortable around me and I think that is me running away from [my] own problems probably... like having to fix everyone else's" (Fisher et al., 2017, p.149)

#### Friends as Vehicles for Ending Self-Harm and Disclosure to Adults

This subtheme was supported by three studies (Yip et a., 2002; Berger et al., 2017; Fisher et al., 2017) and relates to the crucial role friends play in enabling their self-harming friends to resolve this behaviour and in aiding disclosure to adults.

"I told her if you continuously cut yourself, I would not be your friend." (Yip et al., 2002, p.393)

"Oh I would be like why are you cutting are you okay or something or I'd be like don't do that you know..." (Fisher et al., 2017, p.149)

"Tell a trustworthy adult." (Berger et al., 2017, p.11)

Friends perceived a way in which peers or online friends could be most useful in the context of self-harm was in aiding disclosure to adults. They acted as a conduit between their friend and their parents, teachers and other peers.

"Very often, the schoolteachers approached me and asked whether I had seen A cutting herself. I knew that they were reluctant to ask A for she was impulsive and rude." (Yip et al., 2002, p.394)

However, friends often experienced a dilemma about being positioned in this way and worried about the impact it could have on their friendship.

"...you're put in the most difficult spot because you don't want to break that person's trust or you don't want to make them feel like they couldn't tell you things because at the end of the day you want to be trusted, you want people to be able to tell you things..." (Fisher et al., 2017, p.149)

## Theme 2: The Downsides

This theme related to the negative implications for friends of being exposed to their friend's self-harm or how friendship dynamics could impact on adolescent's self-harm and was supported by most studies (Yip et a., 2002; Prinstein et al. (study 1), 2010; Prinstein et al. (study 2), 2010; Claes et al., 2010; Hasking et al., 2013; You et al., 2013; Giletta et al., 2013; You et al., 2016; Fisher et al, 2017).

## Self-Harm As A "Release" From Or Communication Tool For Interpersonal Tensions

This subtheme was supported by one study (Yip et al., 2002) and reflects the finding that adolescent self-harm can be maintained by interpersonal problems, can act as a means of communication (e.g., revenge) in friendships or be used to obtain a response from friends (e.g., to gain care).

"I feel extremely frustrated when my friends and my teachers blame me... I feel really frustrated inside and I need to do something, like self-cutting to release that sense of emptiness." (Yip et al., 2002, p.391)

"Self-cutting was a way to express my feelings, especially in front of my boyfriend... Let my boyfriend feel guilty. Let him suffer my pain..." (Yip et al., 2002, p. 391)

## Friendship Groups May Be Selected Around Self-Harm Or Increase Personal Vulnerability For Self-Harm

This subtheme reflects the finding that knowing others who self-harm or being part of a friendship group in which this behaviour occurred were more likely in individuals who self-harmed. This subtheme was supported by seven studies (Yip et a., 2002; Prinstein et al. (study 2), 2010; Claes et al., 2010; Hasking et al., 2013; You et al., 2013; Giletta et al., 2013; You et al., 2016).

"At school sometimes, I cut with my schoolmates." (Yip et al., 2002, p.391)

In some cases, individuals who self-harmed tended to join peer groups who also engaged in this behaviour (You et al., 2013).

However, other vulnerability factors often needed to be present, in order for adolescents to be influenced by self-harm of others. This included; more negative selfconcept (Claes et al., 2010), higher numbers of adverse life events (Hasking et al., 2013), having friends who had more depressive symptoms (Giletta et al., 2013) or who presented with higher levels of impulsivity (You et al., 2016) also partially supported by Giletta et al (2013) or being a younger female with a best friend who self-harmed (Prinstein et al., (study 1), 2010).

A significant factor in whether adolescents with friends who self-harmed engaged in this behaviour themselves appeared to be the closeness of the relationship (You et al, 2013; Prinstein et al. (study 1; 2010); Yip et al, 2002). In the case of You et al (2013) the quality of the relationship predicted best friends' engagement in self-harm even after controlling for depressive symptoms and impulsivity.

In addition to individuals' friends' actual self-harming behaviours, adolescent females' perceptions of these behaviours; that is, their own beliefs about their friends' self-harm; were found to influence their own engagement in this behaviour (Prinstein et al., (study 2), 2010; Claes et al., 2010; Hasking et al., 2013).

Friends of self-harming adolescents in the study by Fisher et al. (2017) referred to their past difficulties, including historical self-harm, though it was not clear if this was known to their friends, making it difficult to determine whether or not this had any influence on friendship selection or their friends' behaviour.

## Discussion

The aim of this review was to synthesise what is known about the role of friendship in adolescent self-harm. Nine papers, comprising of ten studies were reviewed which resulted in two main themes: *Friends as first-line support* and *The downsides*, along with further subthemes.

#### Theme 1: Friends as First-Line Support

The first main theme *Friends as first-line support* reflected the level of emotional and physical availability friends provide to the person self-harming. Friends act as an important protective factor in encouraging friends to cease self-harming and aid further help-seeking through disclosure to adults. However, this can be at personal cost to themselves, with friends describing experiences of feeling overwhelmed, distressed, taking on high levels of responsibility, with their own needs side-lined to prioritise their friends' problems. Similar impacts have been found before on friends (Heath, 2016) and on parents (Kelada et al., 2016) of adolescents who self-harm. The distress experienced by friends, including feelings of being overwhelmed and exhausted (Fisher et al., 2017), has been termed as 'empathetic distress' in the literature (Smith & Rose, 2011) and is similar to compassion fatigue, or secondary traumatic stress (Figley, 1995); something that often affects mental health professionals and other frontline professionals, such as social workers (Kanno & Giddings, 2017).

There is increasing interest in mental health promotion interventions to empower young people to manage challenging real-life situations and know how to access professional support, if needed. The present review demonstrates that young people already serve as a primary source of support for friends experiencing distress and presenting with associated risks such as self-harm. It is therefore vital that young people are given appropriate education about mental health and skills to cope. This could include routine implementation of universal evidence-based interventions such as the Youth Aware of Mental Health (YAM) project for 13-17 year olds, a brief school-based programme aimed at raising mental health awareness about risks and 'protective factors associated with suicide and to enhance skills to deal with difficult life events, stress and suicidal behaviours (Wasserman et al, 2015). The UK government's green paper on young people's mental health provision (Department of Health and Social Care and Department for Education, 2017) recommended that every school and college have a designated lead for mental health to have oversight for whole school approaches to mental health and well-being, identify at-risk young people, increase confidence of staff to work with young people with mental health difficulties and support referrals to specialist services, where necessary. Having an identified lead for mental health in schools may be an important contact point for young people supporting friends who are self-harming to seek appropriate support and advice. Whole school approaches may also promote talking about mental health openly to encourage help-seeking among students and de-stigmatise self-harm. Whole school structures that have embedded pastoral systems which value relationships have been found to be the most effective ways of developing pupils' well-being (McLaughlin, 2015).

Schools, families and frontline professionals, such as youth workers, should be educated so they understand the potential implications for adolescents supporting friends who selfharm. Whole school approaches to mental health may benefit from emphasising this role, which may also reduce the barriers young people experience to disclose their friend's selfharm, for fear of breaking their trust.

#### **Theme 2: The Downsides**

The second main theme *The downsides* reflected that self-harm can be a way adolescent self-harm is maintained by interpersonal difficulties with peers, acting as a "release" or a

form of communication. The synthesis also indicates that adolescents may be self-selecting peer groups around self-harm or having friends who self-harm may increase personal vulnerability where there are pre-existing risk factors.

The function of self-harm as a means of emotional release and a way of expressing feelings and difficulties in interpersonal relationships has been found in previous research (e.g., Stanicke et al., 2018). Self-harm in adolescence may be underpinned by difficulties in parent-child communication (e.g., Tulloch et al, 1997) which, it is possible gets replayed in peer relationships and managed through self-harm. Improving affective language and communication skills may be a key element in reducing self-harm which may require involvement of the young person's family to support them to develop de-escalation strategies and improved communication skills (Peterson et al, 2008). Whole school interventions such as the YAM Project may also enable young people to be the experts in identifying solutions to their own problems.

The finding that adolescents who self-harm were more likely to know others who self-harm or were part of a friendship group in which this behaviour occurred lends support to the social learning hypothesis that engagement in self-harm is influenced through observing the behaviour of others (Nock, 2009b). Given that the quality and closeness of the friendship appeared to predict risk of self-harm, and friendship quality has been found to be positively associated with empathetic distress (Smith & Rose, 2011), it may be the impact of the sharing of problems, that takes place in good quality friendships, that increases risk of self-harm in other young people. However, self-harm also appeared to be influenced by adolescents' perceptions of their friends' behaviours, supporting the idea that self-harm may also be influenced by the desire to follow perceived social norms (Berkow-itz, 2005).

The synthesis suggests that adolescents who self-harm may select and form friendships with others who also engage in this behaviour is consistent with 'assortative relating'; the idea that people select and form friendships on the basis of shared similarities and vulnerabilities (Joiner, 1999). Studies supporting this finding (Yip et al., 2002 and You et al., 2013) varied in quality but evidence of selection effects has been found in previous research, for example, in relation to suicidality among college roommates (Joiner, 2003).

#### Limitations Of The Review And Future Research Directions

There were inconsistencies in how friendship was defined in studies in this review. In order to meaningfully understand the implications of friendship in the context of adolescent selfharm, future research needs to more clearly operationalise the concept of 'friend', clarify its meaning for research participants and ensure important friendships are not precluded through research procedures (e.g. peer nomination procedures). The rigor of the review would have been enhanced by independent screening of papers selected for inclusion in the review and quality appraisals, to establish inter-rater agreement.

The majority of participants included in studies in this review were female. More research is needed to understand gender differences in terms of the role of friendship in adolescent self-harm, given there may be gender-specific implications. For instance, girls' relational style has been found to be characterised by stronger interpersonal engagement and more disclosure than boys (Rose & Rudolph, 2006), girls have also been found to experience more empathetic distress (Smith & Rose, 2011). Some peer effects in the current review were only found for females, but males were also underrepresented in studies, limiting the ability to draw firm conclusions.

There is also a need to better understand how personal vulnerability factors and peer group exposure to self-harm may increase personal risk of self-harm and to test out hypothesised mechanisms of transference of this behaviour (e.g. social learning).

# Conclusions

Friends are an important source of first line support for adolescents who self-harm but this can present an emotional toll and may increase risk of personal engagement in self-harm in the context of other vulnerability factors. Families, schools and frontline professionals need education and direction about how they can support young people and adolescents themselves need to be empowered to support peers through mental health awareness and promotion interventions.

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## Declarations

**Conflict of interest** The authors have no conflicts of interest to declare that are relevant to the content of this article.

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