Peer Relations and Friendships in Early Childhood: The Association with Peer Victimisation

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Prepared for Aggressive Behaviour

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Data Availability Statement

The data that supports the findings of this study are available on request from the corresponding author.

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Abstract

We examined the association between involvement in peer victimisation in early childhood and different measures of peer relations in order to examine the role of the peer group in victimisation with special focus on the role of the aggressor, defender, and target. Children (N=200; 45.5% girls) and teachers (N=8; 100% women) were recruited from three primary schools in the south-east of England. Children were aged 5-7 years (M=75.6 months, SD=10.39). Child and teacher reports of children's friendships were obtained. Children reported on the quality of their best friendship. Children provided peer reports on involvement in peer victimisation (as aggressor, defender, and target) and social status (likemost and like-least). Results show that aggressive children received more like-least nominations than other children, defenders were the most liked by peers, but targets' social status was not clearly identifiable. There were no significant differences between role in peer victimisation and best friend nominations - most children said that they had a best friend. Similarly, there were no differences in reciprocated friendship between different roles. However, children who had their friendship reciprocated received more defender nominations. In line with the homophily hypothesis, aggressive children tended to have aggressive friends and have friendships characterised by conflict. Defenders were friends with other defenders. Targets tended to follow the social competence model of friendships by indicating defenders as their best friends. We discuss these findings in relation to the role that group processes may play in peer victimisation in early childhood.

Keywords: Peer relationships, friendships, aggression, peer victimisation, early childhood

Introduction

Research with children between the ages of 3 and 6 years has reported that peer victimisation occurs across a variety of different settings (e.g., Camodeca, et al., 2015; Huitsing & Monks, 2018; Monks & O'Toole, 2021). Studies with children during middle childhood and adolescence have highlighted the important role of the peer group and peer relations in victimisation and bullying (Salmivalli, et al., 1996; Salmivalli, 2010). Children who bully others tend to form social networks with others who take more complementary roles to their behaviour, such as assistants (those who join in with aggression) and reinforcers (who encourage or reinforce the aggression; Monks & O'Toole, 2020), which may further encourage their aggression. Some anti-bullying programmes have successfully worked on challenging and changing the behaviour of the broader peer group, helping children to be aware of their behaviour that may be supportive or encouraging to the child being aggressive (KiVa for example; Huitsing et al., 2020).

There is less evidence for the roles of assistant and reinforcer during early childhood (Camodeca et al., 2015; Monks & Smith, 2010;). Peer relations in early childhood are less hierarchically structured and dyadic interactions are more common than in older childhood (Krappman et al., 1999), which may account for the finding that few children appear to take these peripheral roles in peer victimisation (Monks et al., 2021). Although the roles of assistant and reinforcer are not prominent within early childhood, Huitsing and Monks (2018) have suggested that some group dynamics occur during this period which support ongoing aggressive behaviour; with children who are aggressive supporting each other. However, less is known about the role of group-dynamics in peer victimisation during the early years of schooling compared with middle childhood and adolescence. In the current study, we aimed

to address this issue and examine the nature of children's peer relations and friendships in relation to their involvement in peer victimisation during early childhood.

Importance of peer relations

Children's peer relations are important for their adjustment as well as their social and emotional development (Hartup, 1996). Researchers have highlighted that different aspects of children's relationships with their peers fulfil different needs and are differentially associated with adjustment during middle childhood (Maunder & Monks, 2019). It has been argued that it is therefore important that research on children's peer relations includes various measures of peer relations including friendships and broader peer standing (Beazidou & Botsoglu, 2016; Maunder & Monks, 2019). Accordingly, we examined the association between different measures of peer relations (social preference, reciprocity of friendships, behavioural similarity of friends, and quality of friendships) and involvement in peer victimisation during early childhood.

To date, most research looking at the associations between peer victimisation and peer relations has focussed on social preference, often using sociometric measures of liking and disliking across the broader peer group (e.g., Camodeca et al., 2015; van der Wilt et al., 2018). Children who are aggressive during the early years are often disliked by their peer group as a whole, and those who defend others are well liked (e.g., Camodeca et al., 2015; Johnson & Foster, 2005; Monks et al., 2003), although there are some differences based on the type of defending (Lee et al., 2016). There is less agreement on the association between social preference and the target's role, with some studies suggesting that targets are less well liked by peers (e.g., Lee, 2020; Nelson et al., 2010) and others finding no association between victimisation and social preference (e.g., Camodeca et al., 2015; Monks et al., 2003). This leads us to predict that there will be differences in overall social status among children

displaying different types of behaviour, with aggressive children being less well liked by peers and those who defend others demonstrating higher levels of peer acceptance. Given the mixed findings for children who are targeted by aggressors, no firm predictions were made (H1).

There is less research examining the friendships of children involved in peer victimisation during early childhood. Reciprocity is characterised as a defining feature of friendships which refers to the child identifying someone as their best friend who also identifies them as their best friend (Bagwell & Schmidt, 2011). Friendships are important contributors to the acquisition of new skills and competencies (Bukowski, 2001; Bukowski & Cillessen, 1998) and influence children's wellbeing (Holder & Coleman, 2015). Much of the research in the field has focused on older children and adolescents (e.g., Maunder & Monks, 2019), rather than on young children in the early years of primary school. However, there is evidence that children of this age have mutual friendships and that early friendships help them learn about establishing and maintaining friendships, and may alleviate social adjustment problems when they are older (Buysee et al., 2008; Rubin et al., 1998; Sebanc, 2003). One of the factors that is said to inhibit reciprocated friendships in middle childhood is aggressive behaviour (Bowker et al., 2010), although there is some disagreement in the literature in this regard (Cairns et al., 1988; Gest et al., 2001). In contrast, the social competence model of friendships (Asher, 1985; Asher et al., 1996) suggests that prosocial children have more best friend nominations than aggressors or targets because other children want to become friends with those who are helpful and supportive (Gest et al., 2001; Newcomb & Bagwell, 1995; Shin et al., 2019). Hence, they have a higher chance of having reciprocated friendships. The limited research to date among young children has indicated that there may be some differences in the association between friendship status and the varied subtypes of aggression during early childhood (Sebanc, 2003). Burr et al. (2005) noted that

observed levels of relational aggression were positively associated with the number of mutual friendships among young children. This was further broken down by gender by Sebanc (2003) who found that boys with friends had higher levels of relational aggression than those who did not have friends, whereas the opposite was true for girls; those who had friends showed lower levels of relational aggression than those without friends. In contrast, Kamper-Demarco and Ostrov (2019) found no differences in either relational or physical aggression among those young children with a reciprocated friendship and those without a mutual friendship. There is little research on the friendships of 5-6-year-old children who are victimised by others during early childhood, although Ladd et al. (1997) noted a negative association between friendship measures (number of friends and presence of a reciprocated best friend) and victimisation. Given the conflicting findings reported, we have no clear hypotheses regarding the mutual friendship status of children who are aggressive, or victimised, but we predicted that defenders will be more likely to have reciprocated friendships due to their prosocial characteristics as predicted by the social competence model of friendships (H2).

The influence of friends can be positive or negative depending on the characteristics of friends and the quality of the relationship (Hartup 1996). Children tend to select friends who are similar to them in terms of their behaviour and they may also become similar to each other during their friendships through socialisation processes (Bowker et al., 2010). Using the interpersonal attraction model of friendship (Baker, 1983; Byrne, 1971) and especially the concept of homophily in social behaviour, research into friendships during middle childhood has established that friends are behaviourally similar, including aggression, withdrawal and prosocial behaviour (Bowker et al., 2006; Cairns et al., 1988; Haselager et al., 1998; Rubin et al., 1998). Research with preadolescents (11-12 years) has reported that children are friends with others taking complementary roles in bullying; pro-bullying children are friends with

other pro-bullying children (perpetrators, reinforcers, and assistants), targets are more likely to be friends with other targets or with defenders, and defenders are more likely to have other defenders as friends (Salmivalli et al., 1997). Research suggests that antisocial behaviour increases among children whose friends show similar levels of antisocial activity and who themselves are prone to being antisocial (Ball, 1981; Berndt & Keefe, 1992; Dishion, 1990; Dishion et al., 1994). A longitudinal study by Rambaran et al. (2020) indicated that among children in middle childhood, those who bullied the same individuals formed friendships with each other and that children tended to bully their friends' targets. With younger children, Huitsing and Monks (2018) found that aggressors who shared targets tended to form peer networks with other aggressors, but that targets who shared aggressors did not. This suggests that children may be reinforcing each other's aggressive behaviour. However, selection of similar friends is not the only factor that leads to increased behavioural similarity within friendship dyads. Due to socialisation processes, friends tend to become more similar to each other over time. Sijtsema et al., (2010) found that due to peer influence, aggressive behaviour increased beyond the effect of homophily in forming friendships, which suggests that making friends with children who have similar levels of aggressive behaviour leads to reinforcement of each other's aggression resulting in further adoption of such behaviour from friends. For example, research on prosocial characteristics showed that adolescents engaged in volunteering more when a prosocial friend was doing so (Choukas-Bradely et al., 2015).

There is little research examining the similarities between friends in early childhood in terms of victimisation directly, although homophily has been reported in reciprocated friendships of 4-8-year-olds in internalizing symptoms (Stone et al., 2013). However, not all research supports the homophily theory of friendship. Güroğlu et al., (2007) reported that victimised preadolescents tend to engage in complementary friendships with prosocial children rather than other targets. Other research has suggested that children who are

victimised during early childhood like others who defend them, although this does not necessarily mean that this liking is reciprocated (Monks et al., 2003). Children who were victimised by the same aggressors in early childhood did not appear to support or defend each other (Huitsing & Monks, 2018), which may reflect a lack of friendships between them, but may equally indicate that they are less well equipped to defend each other.

This led us to predict that children's friendships would be with children who are like themselves in terms of behaviour; with children who are aggressive being more likely to form friendships with other aggressive children and those who are defenders more likely to form friendships with other defenders. We predicted that targets would have friends who complement their behaviour and display prosocial behaviour which may include defending their friends. The literature shows that they tend to befriend prosocial children at older ages (Güroğlu et al., 2007), but as yet it is unclear whether these relationships exist among younger children (H3).

Positive friendship quality is important for social adjustment (Maunder & Monks, 2019). Hartup et al., (1988) notes that friendships characterised by conflict and coercive behaviour are disadvantageous to children's development. Researchers have suggested that children's friendship quality may be associated with their social behaviour. Research with older children suggests that targets report feeling lonely at school (Eslea et al., 2004), but that their friendships are of higher quality than non-targets (Woods et al., 2009), perhaps because they are made with prosocial children (Güroğlu et al., 2007). However, to date there is little research on younger children's experiences. Sebanc (2003), using teacher reports, indicated that among young children, overt and relational aggression were positively associated with conflict, and relational aggression was also related to exclusivity and intimacy in friendships. In contrast, teachers reported that prosocial behaviour was associated with support within friendships. These findings were based on teacher reports of friendship quality rather than the

reports of children themselves. In the current study, we assessed children's self-reported friendship qualities. Based on the limited findings to date, we suggest that children who behave aggressively may have friendships which are more characterised by conflict, whereas children who defend others and targets may be more likely to report support within friendships (H4).

It is important to assess the effect that friendships might have on the probability of aggressive, defending, and victimised behaviour. Confirmation of the hypothesis about homophily of social behaviours within friendships for young aggressive children would be concerning as it would suggest that these relationships may reinforce aggressive behaviour, leading to its increase. Similarly, if prosocial children form friendships with each other, this may result in them being more active in defending others or one another, protecting them from peer victimisation (Sebanc, 2003). Finally, research shows that targets who have stable friendships cope better with episodes of peer victimisation or bullying (Grotpeter & Crick, 1996; Hodges et al., 1997). But we also know that some children are targets of peer victimisation within their friendship dyad (Mishna et al., 2008). It is important to explore if the friendship helps to predict the probability of being a target, as it may suggest that peer victimisation happens within friendships at a young age, and therefore it may not be such a transient experience as previously suggested (Huitsing & Monks, 2018; Monks et al., 2003).

We examined the relation between children's involvement in peer victimisation during early childhood and their relationships with the broader peer group, as well as their relationships with friends. Based on the literature to date we developed the following hypotheses:

H1. Aggressive children will be less well liked by peers, and defenders will have higher levels of peer acceptance. We make no directional predictions for targets.

H2. Defenders will be more likely to have reciprocated friendships due to their prosocial characteristics as predicted by the social competence model of friendships, but we make no directional predictions for aggressors and targets.

H3. Based on the homophily model of friendship, aggressive children will form friendships with other aggressive children, and defenders will form friendships with other defenders. Based on the social competence model, targets will have friends who complement their behaviour, and display prosocial behaviour, which may include defending their friends.

H4. Children who behave aggressively may have friendships which are characterised by more conflict, whereas children who defend others and targets will be more likely to report support within friendships.

Method

Participants

Children aged between five and seven years (M=75.6 months, SD=10.39) and their teachers (all women) were recruited from eight classes across three primary schools in the south-east of England. The participant group was made up of 200 children (45.5% girls, N=91) and their eight teachers. Class sizes ranged from 21 to 28 (M=25).

Measures

We conducted the measures in the final term of the school year, so the children would have been together since the start of the school year. The participation rate for the study was high. All of the parents/carers (n=200) who were contacted agreed for their child to take part in the study. Children provided consent each time we spoke with them.

Child Reports

Sociometric Status. To obtain a measure of sociometric status, children were asked to identify the three children they liked the most in their class and the three children they liked the least. Following Coie et al. (1982), like-most and like-least nominations were standardised by class-size.

Role Nominations. Using an individual interview methodology (Huitsing & Monks, 2018; Monks et al., 2003), children were presented with four cartoons depicting different peer-aggression scenarios (physical aggression – hitting, kicking, pushing; verbal aggression – name calling; direct relational aggression – telling someone that they can't play; indirect relational aggression – rumour spreading). They were asked to identify the behaviour and then to nominate peers who either behaved aggressively in these ways, were victimised in these ways or defended others in these situations (by telling an adult, telling the aggressor to stop or comforting the victim afterwards). In this way peer nominations were obtained for aggressor, target, and defender. Nominations were standardised by class size and the standardised scores were used in subsequent analysis. Categorical assignment to roles of Aggressor, Target, Defender was made using the method described in Monks et al., (2003). If children scored above the mean on a role, they were assigned to the role on which they scored highest. If they did not score above the mean on any role, they were assigned No Role. Although the children could nominate someone who was not participating in the study, we would not record this nomination.

Best Friendships. Children were asked if they had a best friend in their class and who that was. Based on their nominations for best friend we assessed if the friendship was reciprocated and created a binary variable called Child Reciprocal Friendships. They were then asked about this best friendship using the Friendship Qualities Measure (Crick & Grotpeter, 1996) which includes 12 questions in total with subscales comprised of four items: Companionship and Recreation (Cronbach's alpha =0.99; Relational Aggression from the friend (Cronbach's alpha=1); Overt Aggression from the friend (Cronbach's alpha=1). This was read out to the child and their responses were recorded by the researcher.

Teacher Reports

Child Friendships. Teachers were also asked to identify up to three friends from the class of each participating child, indicating who their best friend was if they had one. Although this has the implication of non-independence of teacher reports we wanted to use it alongside child self-reports of their best friends for comparison purposes. Similar to child nomination for best friends, we used these nominations to define if the friendship was reciprocated and created a variable called Teacher Reciprocal Friendships.

Procedure

Ethical approval was given by the relevant institutional ethics committee. Headteachers gave consent for the study to take place within their school. Consent for child participation was obtained from parents/carers. Teachers consented for their own participation. Children were informed of the voluntary nature of their participation and were informed that they could stop or withdraw at any point.. Child interviews were conducted by trained researchers individually with each participating child in a quiet area within their school. Each interview lasted around 20 minutes. Teachers were asked to complete the questionnaire in their own time. They were thanked for their participation, but were not compensated financially for their time spent on filling out the survey.

Analytic plan

There were low levels of missing data < 5%, and listwise deletion was employed. We used two approaches in our analysis: the first used categorical variables defined as Aggressor, Defender, and Target, that we assigned to children. Only 25 children were cross-categorised into multiple roles from the sample of 200 children, thus due to the small sample sizes of each of these multiple roles we could not include them in the modelling of categorical role variables. To examine the extent of the relations between the behaviour and relationship variables, we also modelled continuous variables defined as peer nominations for aggressor, defender, and target. When testing H1 we used multivariate analysis of variance (MANOVA) in order to assess differences in social preference between categorical roles of aggressor, defender, and target. For robustness, we modelled these associations using continuous variable of peer nominations. T-tests were used to assess differences in peer nominations and whether children have best friend or not. For teacher reports of children's best friendships, we employed analysis of variance (ANOVA) and chi-square analyses to test the associations between peer nominated role and whether children were identified as having a best friend or not. Hypothesis 2 focussed on reciprocity of friendships and was tested using t-tests and chisquare analysis. In order to test hypothesis 3 we conducted correlations and for hypothesis 4 testing we conduct multiple regressions.

Results

Role Nominations

Based on peer reports, nearly a third of children were identified as taking No Role (n=64, 32%), 28.5% (n=57) were Defenders, 22% (n=44) were Targets, and 17.5% (n=35) were Aggressors. Analysis indicated that there were significant associations by gender, with

boys being more likely to be identified as Aggressors than girls (boys: n=30, 27.5%, SR=2.5; girls: n=5, 5.5%, SR=-2.7) and girls being more likely to be identified as Defenders (boys: n=24, 22%, SR=-1.3; girls: n=33, 36.3%, SR=1.4) than boys, although there was no association by gender for being identified as a Target (boys: n=22, 20.2%, SR=-.4; girls: n=22, 24.2%, SR=.4), χ^2 (3*df*, N = 200) = 17.87, *p* < .001, *V* = .299.

Peer Relations and Roles (H1)

Teachers and children reported on different aspects of children's peer relations. Indices of broader peer relations were obtained from peer nominations of like-most and likeleast and the number of best friend nominations received from peers. Teacher reports of numbers of friends were also used to provide an index of broader peer relations.

Results of a MANOVA indicated significant differences between peer nominated role and the numbers of like-most nominations, like-least nominations, and best friend nominations received from peers, Wilks Lambda F(9, 472) = 0.622, p < .001, $\eta^2 = .147$. Univariate analysis revealed a significant effect for like-most nominations F(3, 196) =10.706, p < .001, $\eta^2 = .141$, like-least nominations F(3, 196) = 24.035, p < .001, $\eta^2 = 0.269$, and number of best friends nominations received F(3, 196) = 3.325, p = 0.021, $\eta^2 = 0.048$. Bonferroni post hoc analyses indicated that children who were identified as Aggressors had significantly fewer nominations for like-most by peers than Defenders (p = .029), and more nominations for like-least than all other groups (p < .001). Defenders had more nominations for like-most and best friend than No Role children (p < .001 and p = .022 respectively) and fewer like-least nominations than Targets (p = .027). Targets had more like-most and likeleast nominations than No Role children (p = .002 and p = .012 respectively). See Table 1.

Correlations were conducted to examine the extent to which peer nominations for aggressor, defender, or target were associated with like-least, like-most and best friend nominations from peers. Aggressor nominations were significantly and positively associated with like-least nominations (r = .70, p < .001). Defender nominations were positively associated with like-most and best friend nominations (r = .54, p < .001 and r = .33, p < .001respectively) and negatively associated with like-least (r = .24, p = .001). Target nominations were positively associated with like-most (r = .26, p < .001), like-least (r = .34, p < .001), and best friend nominations (r = .15, p = .035).

An ANOVA was conducted to examine whether there were differences in the number of teacher-reported friends children received by peer nominated role. It was found that there was no significant difference in the number of friend nominations received according to teacher-reports by peer nominated role F(3, 196) = 1.787, p = .151. Correlations indicated no significant associations between teacher-reported number of friends and peer nominations for aggression, defending, and victimisation.

Best Friendships and Role (H1)

Children's self-reports of having a best friend and teacher reports of children's best friendships were examined by peer nominated role. The majority of children self-reported having a best friend (overall 89.9%). A chi-square analysis indicated no significant association by peer nominated role in whether children reported having a best friend χ^2 (3*df*, N = 199) = 2.04, p = 0.56 (94.3% of aggressors, 87.7% of defenders, 93.2% of targets, and 87.3% of children with no role reported having a best friend).

A series of t-tests indicated that there were no significant differences between children who reported having a best friend and those who did not in terms of aggressor (t(119.48df)) = -1.96, p = .05), defender (t(198df) = -.72, p = .47), or victim (t(198df) = -0.97, p = .33) nominations.

Chi-square analyses indicated that there were associations between peer nominated role and whether children were identified as having a best friend or not by their teacher χ^2 (3*df*, N = 200) = 9.20, p = .027, V = .214. A quarter of children taking No Role had no best friend according to teacher reports, compared to 17.1% of aggressors, 7.0% of defenders, and 9.1% of targets. T-tests indicated that children who were identified as having a best friend by teachers did not differ on peer reports of aggression, defending, or victimisation, according to peer reports.

Best Friendship Reciprocity and Role (H2)

According to child-reports 26% (n = 42) had reciprocated friendships, whereas teacher reports of best friendships indicated that 43% (n = 72) of children had reciprocated friendships. Chi-square analyses were conducted to examine whether there was an association between the role taken by children and whether their friendship was reciprocated or not. There was no significant association by role for child reported best friend reciprocity χ^2 (3*df*, N = 162) = 4.61, p = .20, or teacher reported best friend reciprocity χ^2 (3*df*, N = 169) = 1.52, p= .678. See Table 2.

Children who had their self-reported best friend nomination reciprocated received significantly more nominations for defender than those who did not have a best friend nomination as measured using the continuous variable of role nominations t(160df) = -2.86, p = .005 (reciprocated best friend, mean = 0.40, SD = 1.15; no reciprocated best friend, mean = -0.12, SD = 0.94), a medium effect size was reported (d=.50). There were no differences between the two groups on aggressor or target nominations t(160df) = 0.22, p = .82 and t(160df) = -0.19, p = .85 respectively. Children whose teacher indicated that they had a reciprocated best friendship received significantly more defender nominations from peers than those who were not reported as having a reciprocated best friendship t(157df) = -2.69, p = .008 (reciprocated best friend, mean = 0.37, SD = 1.14; no reciprocated best friend, mean = -0.11, SD = 0.95) with a medium effect size (d=.46). Reciprocity of best friendships according to teacher reports was not significantly associated with peer nominations for aggressor or target t(157df) = 0.15, p = .88 and t(157df) = -0.24, p = .81.

Role Nominations and Best Friend Characteristics (H3)

For child-reported best friends there was a significant but weak association between peer nominations for aggression and their best friend's nominations for aggression (r = .211, p = .007). There was also a significant and low correlation between child nominations for defender and those received by their best friend for defender (r = .23, p = .004) and between child nominations for target and best friend nominations for defender (r = .23, p = .003). No other correlations reached statistical significance.

Peer nominations received by teacher-reported best friends were correlated with the peer nominations received by the children. Child defender nominations were positively associated with their teacher-reported best friend nominations for defender (r = .161, p = .035). No other associations reached statistical significance.

Relative Contributions of Different Peer Factors

In order to examine the relative contributions of best friend characteristics (aggression, defending, and victimisation) on child aggression, defending, and victimisation, nominations we conducted three multiple regressions. The dependent variables were standardised child nominations received for aggression, defending, and victimisation. The independent variables were standardised nominations received by child reported and teacher reported best friends for aggression, defending, and victimisation. We controlled for gender as this has been found to be an important variable in understanding behaviour related to peer victimisation also in our study.

The model was significant for child nominations for aggression, accounting for 12% of the variance, $R^2 = .12$, F(7, 136) = 3.79, p = .001. Gender was a significant negative predictor ($\beta = -.38$, p < .001), indicating that boys displayed higher levels of aggression than girls. Teacher best friend target nominations was a significant positive predictor ($\beta = .18$, p = .049). The model was significant for child nominations for defender, accounting for 9% of

the variance, $R^2 = .09$, F(7, 136) = 2.89, p = .007. Teacher best friend defender nominations was the only significant positive predictor ($\beta = .20$, p = .029). The model was not significant for child nominations for target, $R^2 = .05$, F(7, 136) = 1.74, p = .06. See Table 3. In order to examine whether there were any effects by school class, models were also run with this included as a variable. However, school class was not found to be a significant predictor and did not alter the regression models above and so are not reported here.

Friendship Quality and Role (H4)

A MANOVA indicated that there was no significant difference in the child reported best friendship quality of children taking different roles, Wilks' Lambda F(12, 450.069) =1.124, p = .338 (see Table 4).

To examine the extent to which peer behaviour measures were associated with friendship quality a series of correlations were performed (Table 5). There was a significant but small positive correlation between Overt Aggression by best friend and child aggressor peer nominations r = 0.19, p = .012 and child target peer nominations r = 0.18, p = .018. No other correlations reached statistical significance.

Discussion

In the current study we aimed to build on the existing literature with older children and to contribute to our understanding of peer victimisation during early childhood. The findings indicate that peer relations and friendships are associated with differences in young children's involvement in peer victimisation and suggest that peer processes may play a role in peer victimisation even during early childhood.

As predicted in hypothesis 1 and in line with previous research, there were differences among children in their broader peer status related to their behaviour in peer victimisation. Children who were identified by their peers as being aggressive received more like-least nominations than other children and there was a strong positive correlation between

aggression and like-least. This confirms the findings of Camodeca et al. (2015) who reported that children who are aggressive in the early years of school are often disliked by the wider peer group. However, aggressive children only differed from defenders and not targets or children taking no role in terms of like-most nominations and peer-reported best friend nominations, indicating that they may be liked and considered as a friend by some other children in the peer group. These findings were only found for peer-reported status and not for teacher-reported status. This difference in findings may be reflective that teachers have less awareness of the fast-paced changes in children's peer relations.

In the current study, defenders received more like-most nominations than many other children, more best friend nominations than No Role children and fewer like-least nominations than aggressors or targets. There were significant positive associations between defender nominations and like-most and number of best friend nominations, and a negative relation between like-least and defender nominations. This indicates that defenders appear to be well liked by the broader peer group confirming previous findings (Camodeca et al., 2015). The direction of the association between defending and peer status at this age is unclear. It is possible that defending others may lead to higher peer status. In line with the social competence theory of friendships, defenders may be viewed as being more desirable as friends or defending others is associated with other characteristics such as dominance which are associated with peer status. Additionally, being in a position to be able to defend others without fear of retaliation may be linked to having a higher status.

Children who were identified by their peers as being the targets of peer victimisation received more like-most and like-least nominations than children who were not identified as taking a role in peer victimisation. Furthermore, nominations for victimisation were significantly and positively associated with like-most, like-least and the number of nominations received for best friend, but the magnitude of the correlation was small. This

mixed pattern of weak correlations for targets suggests that there may not be a clearly identifiable association between peer status and victimisation at this age, as indicated by previous research (Huitsing & Monks, 2018). This also reflects the conflicting findings in the existing literature with some suggesting a negative association between social preference and victimisation (e.g., Lee, 2020; Nelson et al., 2010), but other studies finding no relationship (Camodeca et al., 2015; Monks et al., 2003). This may reflect the suggestion that peer victimisation at this age differs from bullying in older groups. There is some evidence to suggest that aggressive children behave aggressively to various peers rather than particularly targeting others who may be vulnerable (Huitsing & Monks, 2018; Monks et al., 2003).

Most children said that they had a best friend and this did not vary by role, although teacher reports indicated that children who were identified as having No Role were less likely to have a best friend than other children. A key aspect of friendship is reciprocity (Bagwell & Schmidt, 2011), which refers to the child identifying someone as their best friend who also identifies them as their best friend. Considerably fewer best friendships were reciprocated in the current study; around a quarter of child reported best friendships and fewer than half of teacher reported best friendships. Of note is the finding that there were no significant differences across the roles in the proportion of children who had a reciprocated best friendship. This finding supports those of Kamper-Demarco and Ostrov (2019) who found that young children with reciprocated friendships did not differ from those with unidirectional (not reciprocated) friendships in levels of aggression. In hypothesis 2 it was predicted that defenders would have more reciprocated friendships than other children. We did not find differences between defenders and other children as measured by the dominant role the child took in peer victimisation. However, children who had their friendship reciprocated received more defender nominations than those who did not have a reciprocated friendship according to both child and teacher reported friendships. This is in line with research in this area where

prosocial characteristics salient for defenders were a key predictor of initiating and maintaining friendships in sample of older children (Bowker et al., 2010; Newcomb & Bagwell, 1995). The little research with targets of aggression at this age has suggested that they are less likely to have a reciprocated best friend (Ladd et al., 1997) but this was not the case in the current study.

In accord with predictions (hypothesis 3) there were similarities between children and their best friend in terms of aggression (child reported best friend) and defending (teacher and child reported best friends). Because these correlations are relatively weak, we remain cautious about the implications. The weak size of the association may stem from small sample size in the subgroups of children (Bates et al., 1996) or may be a reflection of the nature of friendships at this age that is characterised mainly by simply playing together (Niffenegger & Willer, 1998). These findings extend our current understanding of peer victimisation in early childhood by noting the similarities between children and their best friends in terms of aggressive and prosocial behaviour. The finding of similarity in aggression is concerning. Although studies with children during early childhood have noted that peer victimisation appears to be less of a group process during early childhood and that the roles of reinforcer and assistant to the perpetrator are not clearly identifiable at this age (Camodeca et al., 2015), it appears that aggressive children are forming relationships with other aggressive children. It is possible that although aggressive children may not be victimising others as part of a group at this age, they may be supporting and reinforcing each other's behaviour in other ways. For example, Huitsing and Monks (2018) found that young aggressive children defend each other. Thus, it is possible that this homophily may have negative outcomes leading to an increase in these types of behaviour (Dishion et al., 1994; 1995). It is also possible that what we are seeing here are the early origins of the group processes that we see in bullying during middle childhood and adolescence.

Furthermore, in line with hypothesis 4 there was some evidence that children who are higher in aggression report higher levels of conflict in their relationship with their best friend. The questions asking about conflict focussed on the aggression by the best friend toward the child. The size of the correlation was very small possibly due to the small sample size in the two clusters (9 and 7 for reciprocated friendships for aggressor and victim respectively) and generally low in the subgroups of children categorised into different roles (see table 4). This means that caution should be taken in interpreting the results in order to not overstate their importance. We are drawing our conclusions from this finding; however we acknowledge that further studies using larger sample would provide more reliable results. This finding suggests that aggressive children who are friends with other aggressive children may also be experiencing aggression within these friendships. Although conflict is a commonly occurring factor within friendships, it is worth noting that this was particularly relevant for aggressive children in their relationships with other aggressive children. It is important that children are aware of what makes a good friendship and that, although conflict may occur, it should not be the defining characteristic of their friendship. Interestingly, aggressive children did not report lower levels of companionship and recreation or validation and caring within their friendships than other children. Thus, children are viewing these relationships positively, even though they are more likely to include aggression directed towards them. Similarly, there were not higher levels of relational aggression within these friendships. Johnson and Foster's (2005) research indicates that relational aggression predicts a decrease in liking and mutual friendship over time, hence in our sample, scoring higher on this factor would likely make such friendship impossible. It is possible that these relationships may later develop into the participant roles that are reported in middle childhood. Research with older students suggests that some children who take these 'supporting' roles are aggressive (Crapanzano et al., 2011) and form friendships with other aggressive children who take complementary roles

(ringleader, reinforcer and assistant) (Salmivalli et al., 1997), with the suggestion that children choose friends who have similar pro-bullying roles as themselves and that they become more similar over time (Bowker et al., 2006; Cairns et al., 1988; Haselager et al., 1998; Rubin et al., 1998).

The finding that children were similar to their friends in terms of defending was confirmed by both teacher and child reports. This suggests that children are similar in terms of this aspect of prosocial behaviour which provides support for the homophily theory. This ties in with the findings from previous research that there is reciprocity and transitivity in defending networks (Huitsing & Monks, 2018). It is therefore possible that children are defended by their close group of friends.

Furthermore, as was tentatively predicted, it was found that children's victimisation nominations were positively correlated with the defender nominations of the individual they identified as their best friend, supporting the social competence model of friendship (Asher, 1985). However, child defender nominations were not significantly associated with best friend victimisation nominations. Thus, it is possible that these associations are one-way with children who are experiencing victimisation more likely to identify prosocial peers as their 'best friend' even if this is not reciprocated at this age. This may be as a result of the individuals' defending behaviour which may make them desirable friends for those who are being victimised, reflecting the research that has indicated that children of this age want to be friends with others who show prosocial characteristics (Gest et al., 2001; Newcomb & Bagwell, 1995; Shin et al., 2019)

As indicated above, although we asked children to identify their best friend and most children were able to do so, many of these friendships were unidirectional rather than reciprocated. Given the smaller number of reciprocated friendships we were unable to examine whether reciprocated friendships were more frequent than unidirectional friendships

between children who displayed similar, or complementary behaviour. It is possible that the effects of friendships are more likely when the friendship is reciprocated than when it is unidirectional. This would be an area for future research. Furthermore, the cross-sectional nature of the current study means that it was difficult to define the direction of these relations. It is likely that longitudinal work in this area would facilitate our understanding of the impacts of stable and more transient friendships and how these may develop in tandem with the group dynamics of peer victimisation.

The key limitations of the current research are threefold. The first stems from the cross-sectional nature of the study that renders singular measurement of children's friendships and peer victimisation roles, which allows for only correlational assessment of the relations between the two variables. Conducting longitudinal research would help us to define the direction of this relation and observe how it changes and develops over time as children enter middle childhood. It is also likely that longitudinal work in this area would facilitate our understanding of the impacts of stable and more transient friendships and how these may develop in tandem with the group dynamics of peer victimisation.

The second limitation relates to the small sample size and classification into peer victimisation roles. Increasing the sample size would enable us to test more robustly for differences existing between peer victimisation roles. We could also group children into more than one peer victimisation role and test for their joint presence, for example as an aggressor and target. From the sample 25 children were cross-categorised into multiple roles, but the sample size was still too small to create meaningful subgroups for statistical analysis and we were not able to examine how multiple peer victimisation roles are associated within friendships.

The third limitation stems from the questionnaire measuring the quality of children's friendships. Cronbach's alpha suggests that some of the items measuring the four subscales

may be redundant when used with this sample. Hence, some of the three questions for each scale could have been omitted as other questions sufficiently capture each measured dimension of friendship.

The findings of this study suggest that although previous studies have indicated that young children do not consistently take the participant roles of assistant and reinforcer (Monks & O'Toole, 2021) there may still be some group dynamics in play during early childhood which may indicate the early developments of these group processes. Although children who are aggressive are generally disliked by their peer group as a whole, they do identify friends who are also aggressive. It is possible that these friendships act as a staging ground for peer victimisation as well because aggressive children report higher levels of conflict within these relationships. Intervention and prevention programmes should aim to address these issues early on in children's schooling. Although this study again highlights that peer victimisation does occur during the early years at school, these findings suggest that working with children on developing positive friendships may be a way of encouraging lower levels of aggression within the peer group.

In sum, friendships at a young age may be important for developing and strengthening the roles taken in peer victimisation in later childhood. On one hand, in friendship dyads where higher overt aggression is present we may identify a cycle of aggression that stems from the behaviour and role presented by best friends who are both aggressive. This scenario is worrying as it points to increased aggression within an important relationship with a close friend that has shown to be detrimental to child general development (Hartup, 1996) and social adjustment (Maunder & Monks, 2019). On the other hand, among children who share prosocial characteristics, friendships may contribute to the development of defending behaviour. Anti-bullying work among older children and adolescents has included the

promotion of attitudes and behaviours that are supportive of victims and have demonstrated effectiveness in combatting bullying (Salmivalli et al., 2011).

In conclusion, the current study suggests that a potentially harmful cycle of mutually supportive antisocial behaviour within friendship dyads of aggressive children may begin during early childhood and at the same time points to the beneficial role friendships play in the functioning of children with prosocial characteristics. Children who are victimised by peers at a young age, may find much needed support within friendships with defenders whose interventions help to break the disruptive cycle that aggressors and targets find themselves in.

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	Aggressor (n=35)		Defer	Defender (n=57)		Target (n=44)		No Role	
			(n=57					/64)	
	М	SD	М	SD	М	SD	М	SD	
Most liked	-0.12	1.04	0.44	0.94	-0.20	1.12	-0.46	0.63	
Least liked	1.01	1.49	-0.33	0.53	0.15	0.85	-0.36	0.54	
Best Friends	-0.17	0.87	0.30	1.07	0.06	1.09	-0.22	0.81	

Table 1. Mean standardised like-most, like-least and best friend nominations received by rolein peer victimisation.

N=199/200

Table 2. Proportion of children with reciprocated friendships according to teacher and childreports by role in peer victimisation.

	Aggressor		Defender		Targe	Target		Role
	%	N	%	Ν	%	Ν	%	N
Teacher Best Friend	38	11	49	26	42	17	38	18
Child Best Friend	30	9	35	17	20	7	18	9

	Model 1 DV = Aggression		Model 2 DV = Defending			Model 3 DV = Target						
	R^2	F	ß	р	R^2	F	ß	р	R^2	F	ß	р
	.12	3.60**			.09	2.94**			.05	2.00		
Gender			38	.000***			.12	.20			.01	.96
CBF Aggress			.09	.32			03	.71			.08	.36
CBF Defend			06	.46			.16	.07			.26	.004**
CBF Target			.04	.67			.11	.22			.01	.90
TBF Aggress			07	81			09	.34			.02	.80
TBF Defend			07	.43			.20	.03*			.04	.68
TBF Target			.18	.049*			.01	.88			.09	.31

Table 3. *Multiple regressions with child standardised nominations for aggression, defending and being the target of aggression as the dependent variables.*

*p < .05; ** p < .01; *** p < .001 CBF – Child Best Friend; TBF – Teacher Best Friend;

Aggress – Aggression; Defend – Defending.

Gender: 0=boy, 1=girl

	Aggressor	Defender	Target	No Role
	(N=33/32)	(N=50)	(N=41)	(N=54)
	M SD	M SD	M SD	M SD
Companionship and Recreation	2.88 0.331	2.86 0.452	2.80 0.459	2.83 0.423
Relational Aggression	0.63 0.707	0.68 0.768	0.66 0.762	0.98 0.921
Overt Aggression	0.52 0.906	0.38 0.753	0.49 0.898	0.31 0.668
Validation and Caring	2.67 0.692	2.82 0.482	2.66 0.693	2.81 0.552

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Table 4. Mean scores on a	the aimensions (ot trienasnin	auality by role in	neer victimisation
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	Aggressor	Defender	Target
	Nominations	Nominations	Nominations
Companionship and Recreation	01	.09	001
Relational Aggression	05	11	14
Overt Aggression	.19*	04	.18*
Validation and Caring	14	.12	12

Table 5. Correlation between friendship quality and standardised number of nominationsreceived for aggression, defending and being the target of aggression.

*p<.05, **p<.01 at 95% CI, *n*=177 to 178