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Age and Gender Differences in Peer Conflict

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Abstract The purpose of this study was to examine age and gender differences in peer conflict, particularly in regards to conflict issues and resolution strategies reported by children and adolescents. Students from grades 4 and 8 (60 boys, 60 girls) were asked interview questions and given 3 hypothetical scenarios to respond to. Teacher and self-reports were also gathered for each student to assess their level of adaptive ability. The results showed that adolescents tended to report higher rates of conflict and endorsed more cooperative strategies than 4th graders, who endorsed more aggressive tactics. Female students reported having more relational issues and used more conflict-mitigating strategies, while boys reported having more conflicts related to status/dominance. Finally, links were also found between effective resolution strategies and social ability. The implications and limitations of this study are discussed.

Keywords Gender differences · Developmental differences · Middle childhood · Adolescence · Peer conflict

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Conflicts are an inevitable part of everyday life and can occur at anytime. They range from minor disagreements that are easily solved to major arguments that are much more difficult to reconcile, leaving long-lasting effects for the individuals involved. For this reason, conflict is commonly viewed as a negative event. In fact, much of the early literature on the subject equates conflict with aggression and violence (e.g., Hocker and Wilmot, 1991). Despite this, however, many researchers have also suggested that conflict may play a positive role in human development as well as a negative one (e.g., Johnson and Johnson, 1996; Laursen and Koplas, 1995; Tezer and Demir, 2001). In fact, many developmental psychologists believe that disagreements are one of the cornerstones leading to positive change within individuals, affecting areas such as cognitive, social and psychological development.

Peer conflict, defined as mutual opposition between two or more people, is thought to be one of the factors responsible for the formation of cognitive structures and emotions (Shantz and Hartup, 1992). Researchers have documented how disagreements between pairs tend to produce more response change than agreements do (Laursen, 1993; Nelson and Aboud, 1985). In fact, disagreements with peers may lead to more creative problem solving, which suggests conflict can result in positive changes (Opotow, 1991).

Another area of development that may be both positively and negatively affected by conflict is the social and psychological adjustment of children and adolescents. Children begin interacting with their peers as early as infancy and toddlerhood (e.g., Eckerman and Didow, 1988; Mueller, 1989). As they mature, children become concerned with being accepted by others, entering groups, and building their first friendships, which become increasingly more important to them over the years (Hartup, 1992, 1999). These social tasks, however, are very difficult to attain. In order to succeed,
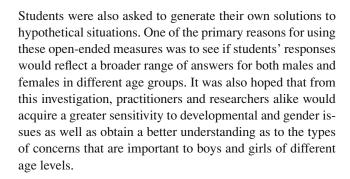
children must learn to engage in a number of social activities, one of which pertains to conflict management (Putallaz and Sheppard, 1992; Rose and Asher, 1999). Studies have found that when conflicts are resolved effectively, children are more likely to be accepted into the peer group and their friendships tend to become more meaningful (Johnson and Johnson, 1996). By contrast, those children who have difficulty with conflict management are more likely to be rejected by their peers and tend to have poor friendship adjustment (Rose and Asher, 1999). Consequently, this may lead to detachment from school, poor school achievement (Berndt and Keefe, 1992), and low self-esteem (Opotow, 1991). In addition, these children are more likely to engage in antisocial behaviour (Kazdin, 1987).

One aspect of conflict that has been examined in terms of how it affects outcomes pertains to the frequency of disagreements. Previous research has shown, for example, that adolescents who engage in disputes with their peers on a regular basis are more likely to have psychosocial difficulties and dysfunctional relationships (Patterson *et al.*, 1989). This finding alone, however, cannot answer the question of outcome entirely. Every conflict episode, rather, consists of a number of distinct components, only one of which involves frequency. Each of these components may play their own part in determining how the dispute will end (Laursen and Collins, 1994). For instance, Laursen and Koplas (1995) found that the more intense an argument was, the greater the chances were for negative conclusions. In fact, intensity of affect has been found to predict outcomes better than frequency does (Laursen and Collins, 1994). Other key components include the conflict issue or reason for the dispute, the oppositional behaviours that start the argument and finally the resolution process (Shantz, 1987). Clearly, peer conflict is a very complex process that involves understanding several subcomponents in interpersonal exchanges.

Present study

The present study was designed to explore the role that age and gender differences play in relation to conflict issues and the types of resolution strategies that are used to end disputes. Though there have already been several studies conducted in this area, further investigation is necessary. The majority of the literature on peer conflict, for instance, focuses on either early childhood or older adolescents, but not on a cross section of age groups (Laursen *et al.*, 2001; Shantz, 1987). In addition, many studies have used self-report measures and questionnaires that employ a forced-choice format (e.g., Rose and Asher, 1999; Tezer and Demir, 2001). The current study targeted two developmentally distinct age groups (4th and 8th graders) and, using a semi-structured interview, asked these students about their daily conflicts.

Students were also asked to generate their own solutions to hypothetical situations. One of the primary reasons for using these open-ended measures was to see if students' responses would reflect a broader range of answers for both males and females in different age groups. It was also hoped that from this investigation, practitioners and researchers alike would acquire a greater sensitivity to developmental and gender issues as well as obtain a better understanding as to the types of concerns that are important to boys and girls of different age levels.

Perceptions or reports of conflict

Frequency of conflict

The researchers looked first at perceptions of conflict frequency. According to cognitive developmentalists, children achieve more advanced cognitive abilities as they mature (Piaget, 1985). This includes the ability to think in abstract terms and may allow older students to generate more complex definitions of conflict. That is, adolescents may include a greater variety of disputes in their definitions than children would. For this reason, it was hypothesized that grade 8 students would report having more frequent disagreements with their peers than their grade 4 counterparts. Furthermore, this outcome was expected to be greater for males from both grade levels than for females. It was thought that conflict may occur more frequently in boys, in part, because of differences in socialization practices. Girls, for example, may be rewarded for behaving in a passive, cooperative manner, whereas aggression and competition is somewhat more acceptable in boys. This may serve to increase the number of disputes boys have (Beall, 1993).

Conflict issues

Another area examined by the researchers concerned the issues that precipitate opposition. In agreement with the conflict literature, it was hypothesized that females would report more disagreements concerning relational issues (i.e., friendship betrayal and trust) than boys, who were expected to report more disputes over issues of status or dominance (Rose and Asher, 1999; Miller *et al.*, 1986). From an evolutionary perspective, these behaviors may have at one time, served an adaptive purpose in that high status males may have been more likely to find mates. Females' concern over relational issues, on the other hand, may have prepared them for child rearing later on in life (Geary and Bjorklund, 2000). Socialization practices too, likely play a role in the development of sex-typed behaviors. Through observation and rewards boys and girls may learn about and develop different gender

schemas that help them categorize male and female characteristics and teach them how they themselves should behave (Beall, 1993). Consequently, boys and girls may be more likely to follow gender stereotypes.

Conflict resolution

Differences were also expected to occur in relation to age and the types of strategies that are used to resolve disputes. With cognitive maturity, children develop a greater understanding of the social world and acquire new skills such as negotiation, perspective taking, and the ability to better read and interpret social cues (Dunn and Slomkowski, 1992; Selman, 1981; Webster-Stratton and Lindsay, 1999). As a result, the strategies used to resolve disagreements tend to become more sophisticated (Bjorkqvist *et al.*, 1992; Laursen *et al.*, 2001). Therefore, it was predicted that grade 8 students would report using more constructive techniques in their resolutions (i.e., negotiation, cooperation) than fourth graders, who were expected to report using more destructive ones (i.e., verbal and physical aggression).

Gender differences, in this regard, were also expected to occur. In line with previous research, it was hypothesized that girls would report using more effective strategies such as cooperation, whereas boys would report using more aggressive and assertive techniques (Black, 2000; Miller *et al.*, 1986; Rose and Asher, 1999). These differences may occur, in part, because of hormonal differences. Higher levels of testosterone in boys, for example, may increase the likelihood of aggressive behaviors. Again, instinctual behaviours and environmental influences, such as socialization practices, must also be taken into account.

Conflict affect

Next, researchers examined students' level of affect following conflict in an effort to assess some of the short-term outcomes. Research has shown that females tend to play in smaller, more intimate groups and, by middle childhood and adolescence, have a preference for more exclusive friendships (Berndt, 1982; Crombie, 1988). Girls also tend to disclose more of themselves to friends and therefore, conflicts involving relationship issues may have a greater impact on girls then on boys (Thorne, 1994). Therefore, females were expected to report feeling either positive or negative affect (i.e., sad or happy) following their disputes with peers, whereas boys were expected to report feeling indifferent (e.g., "I don't care").

Hypothetical conflict

Hypothetical conflict scenarios have been used by researchers, not only to determine how children might resolve

disagreements, but also as a means to assess their knowledge of effective resolution strategies (Laursen *et al.*, 2001). For the present study, two main effects between age and gender were expected to occur in response to these scenarios. First of all, because adolescents have more experience and higher cognitive abilities, they should be able to generate better strategies in order to solve their problems. Therefore, it was predicted that grade 8 students would come up with more alternative solutions and more effective strategies than grade 4 students would. The second main effect that was expected was that females would produce more cooperative solutions than their male counterparts.

Links between conflict management and adaptive skills

Finally, the researchers were interested in looking at possible links between conflict management skills and other adaptive abilities. It was hypothesized that conflict management may be, to some degree, indicative of social ability. Therefore, children and adolescents who are able to deal with conflict successfully should also exhibit more prosocial behaviours. In the present study then, children and adolescents who generated the most effective solutions to hypothetical conflict (i.e., cooperation) were also expected to receive higher ratings for adaptive qualities (i.e., leadership, adaptability, interpersonal relations and, social skills) as assessed by teacher and self-reports.

Method

Participants

The data used for this study were collected as part of a larger research program which examined global measures of social competence in children and adolescents of varying social ability. Participants were recruited from two grade levels (grades 4 and 8) from 12 different schools from both public and Catholic boards of towns just outside of a major Western Canadian city. The sample was predominantly middle class and Caucasian, and was drawn from members of the "normative sample" of the larger study, which consisted of 563 students. In all, 120 participants were randomly selected, 60 were in grade 4 (mean age of 9.5) and 60 were in grade 8 (mean age of 13.6). Using a stratified sampling technique an equal number of males and females were chosen from each grade level.

Measures

Three different measures were used in an effort to assess the age and gender differences that occur in the conflict behaviour of children and adolescents. The first of

these, the Behavior Assessment System for Children (BASC; Reynolds and Kamphaus, 1992), was used to assess emotional/behavioural strengths and weaknesses and to test for links between adaptive skills and conflict strategies. The other two measures, which included a semi-structured interview, and an adapted version of The Middle School Alternative Solutions Test (AST; Caplan *et al.*, 1986), were used to explore perceptions of conflict issues and strategies as well as to assess students' knowledge of effective resolution techniques. A brief review of each measure is provided below.

Teacher and self-report measures of behavioural functioning

The behavior assessment system for children (BASC)

The BASC (Reynolds and Kamphaus, 1992) is a multimethod, multidimensional approach to measuring the adaptive skills and behavioral difficulties of children ages 4 to 18 years. The Teacher Report Form (TRF) contains a number of statements describing both adaptive and maladaptive behaviours. Adaptive behaviours include such skills as adaptability and leadership as well as social and study skills. Maladaptive behaviours, on the other hand, include both internalizing (anxiety, somatization, and depression) and externalizing problems (hyperactivity, aggression, and conduct problems) as well as difficulties with school. For each statement, the teacher is asked to report on the frequency of the behaviour over the past 6 months (1 = Never, to 4 = Almost Always). Scores are reported in the form of *T-Scores* ($M = 50$, $SD = 10$) and percentiles and are provided for each subscale as well as for five composite scales: Clinical Maladjustment, Internalizing Problems, Exernalizing Problems, School Problems and Adaptive Skills.

The Self Report of Personality (SRP), on the other hand, measures personality traits and self-perceptions reported by children and adolescents. Similar to the TRF, the form contains statements describing maladaptive behaviours (e.g., anxiety, attitude to school and teachers, depression) and adaptive behaviours (e.g., interpersonal relations, self-reliance). Students are asked to respond whether each statement is true or false. Like the TRF, scores are reported in the form of *T-scores* and percentiles and are provided for each subscale and four composite scales (School Maladjustment, Clinical Maladjustment, Personal Adjustment, and Emotional Symptoms Index). On the TRF and SRP, *T-scores* above 70 on scales measuring maladaptive behaviours and below 30 on scales measuring adaptive behaviours are considered clinically significant. Scores between 41 and 59 on both forms fall within the average range.

The BASC manual reports high internal consistency for both the TRF and SRP forms. Alpha coefficients for the TRF composites and subscales ranged from .77–.95 for the 8 to 11 age group and .77–.95 for students aged 12 to 14. For the SRP, coefficients for ages 8 to 11 ranged from .71–.95 and .61–.96 for ages 12 to 14. Test-retest reliability was also high for both forms of the BASC. For the TRF, coefficients for the composite and subscales ranged from .56–.96 for ages 8 to 11 and .70 to .89 for ages 12 to 14. Finally, coefficients for the composites and subscales on the SRP ranged from .57–.84 for ages 8 to 11 and .69 to .86 for ages 12 to 14.

Conflict measures

Peer feedback interview (PFI)

A semi-structured interview was developed for the larger study (PFI; Rinaldi and Heath, 2001) in an effort to obtain information about actual conflicts that occur between children and their peers. The interview format was chosen over a forced choice questionnaire as it was thought to provide more in-depth information and allow the interviewer to query or clarify answers when needed. Eighteen questions were devised based upon a review of the conflict literature. The questions ask students about the frequency of their disputes, as well as the issues, affect, and resolution strategies that are used to end disagreements. A coding scheme was also developed to allow responses to be analyzed quantitatively (see Table 1 for a sample the interview questions and how they were coded). The researchers initially examined students' responses and, based on this information, created appropriate categories for the coding. Interrater reliability was calculated for 15% of the sample using Cohen's kappa (*kappa* = .94).

The middle school alternative solutions test (AST)

The AST (Caplan *et al.*, 1986) was designed to measure children's ability to solve social problems. The instrument consists of three hypothetical conflict situations that commonly occur between students in middle school. In the first vignette the child is asked to imagine that another child is picking on them. The second scenario involves a situation in which the child is engaging in an important activity, but is being bothered by another student. Finally, the third story involves a situation in which two students are trying to participate in the same activity (i.e., both want to read the same magazine). Children are asked to write down, in their own words, what they would do in each situation, which makes the AST different from other measures that use a forced-choice format. Responses for each scenario on the AST are coded based upon the number and type of solution generated (passive, assertive, aggressive, cooperative, etc.). The effectiveness of each solution is also rated using a 4-point scale (1 = very ineffective to 4 = very effective). This scale was derived from the independent ratings of six adult judges who

Table 1 Sample of interview questions and coding schemes

1. Can you give me an example of a time when you had a disagreement with a friend or a classmate?
   A = Where to do things/What to do or play
   B = Rules of games or sports
   C = Relational issues (who is friends with who, spreading rumors, etc.)
   D = Boys/Girls (who's cuter, who likes who)
   E = School work (homework questions, correct answers)
   F = Material things (clothes, how someone dresses)
   G = Status/Dominance (who's better at something)
   H = Daily hassles
   I = Other (I don't know, can't think of one)
2. How did you solve or go about ending this disagreement?
   A = Passive (gave in, forgot about it, avoided each other)
   B = Cooperation/Negotiation (talked it through, rock, paper, scissors, etc.)
   C = Sought third party intervention (another friend, teacher, principal, etc.)
   D = Destructive aggression (Physical and Verbal)
   E = Non-resolution/Unresolved (we didn't)
   F = Competition (play a game and winner decides solution, etc.)
   G = Assertive Response (confronting the person you have a problem with, etc.)
   H = Other (I don't know)

looked for the social skillfulness of the solution, minimization of negative consequences, and maximization of positive outcomes (Caplan *et al.*, 1986). Strategies rated as very ineffective include both verbal and physical aggression, whereas cooperative solutions that meet the student's needs and also consider the other party's feelings are rated as very effective. The manual provides detailed information and examples to help the examiner rate each response. Test-retest reliability revealed coefficients of .85 for the mean effectiveness of the solutions and .84 for number of alternative solutions generated. In addition, interrater reliability with four coders was reported as .96 for type of response generated and .94 for effectiveness.

An adapted version of the AST was developed for use in the larger study. Two versions were devised for use with children and adolescents. Interrater reliability was calculated for 25% of the sample, again using Cohen's kappa (effectiveness *kappa* = .90 and type of solution *kappa* = .89).

Procedure

Before the data were collected for the larger study, permission had to be obtained from the school administration at each school, including the principal and the teachers that would be involved. Once permission was granted, the students themselves were told about the study and asked to participate. Each student was given an information letter and consent form to take home for their parent(s) to sign.

Teachers were asked to fill out the BASC-TRF for each participant. Completed forms were collected by research assistants and scored using the BASC computer scoring system. After the BASC-TRF forms were collected, research assistants began administering the AST and BASC-SRP in a group format. Participants were given instructions on how to fill out the form and were told not to write down any identifying information. Research assistants remained in the room to answer questions while students completed the forms.

In the final stage of data collection, participants were administered the semi-structured interview on an individual basis. All interviews were conducted by trained research assistants and were taped using audiocassette recorders. Each participant was reminded that their answers would remain confidential and only their first name and assigned number were recorded on the tape. After all the interviews had been conducted, they were transcribed and scored.

Results

Four different statistical tests were used in order to analyze the data from the three measures used in the study. As responses to most of the interview questions were coded in a dichotomous format (i.e., conflict issues and strategies were either reported or not reported), chi-square tests were used to examine much of this data. Other tests included the univariate analysis of variance, which was used to assess conflict frequency and was coded on a Likert scale ranging from 1 (rare) to 5 (more than once a day). A multivariate analysis of variance (MANOVA) was also used to examine possible interaction effects between age, gender and the types and effectiveness of resolution strategies that were generated on the AST. Finally, Pearson product moment correlations were carried out in order to determine whether there was a link between positive conflict management and prosocial behaviour as assessed by teacher and self-reports of the BASC. An alpha level of .05 was used for all statistical tests. In some cases, interviewers missed interview questions, therefore, sample sizes varied for some of the statistical tests.

Perceptions or reports of conflict

Frequency of conflict

To assess whether an interaction effect would occur between age, gender and the students' reports of conflict frequency, univariate analyses were used with grade level and gender as the independent variables and the frequency of conflict as the dependent variable. Though no interaction effects were found $F(1, 111) = .28$, *ns*, a statistically significant age difference was discovered $F(1, 113) = 11.41$, $p < .001$ ($\eta^2 = .10$, Power = .93). That is, the grade 8 students reported having a greater number of disputes ($M = 2.31$, $SD = 1.34$) than the grade 4 students did ($M = 1.61$, $SD = .71$). No significant differences in conflict frequency were found, however, between males ($M = 2.09$, $SD = 1.23$) and females ($M = 1.84$, $SD = 1.02$), $F(1, 111) = 1.21$, *ns*.
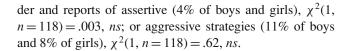
Conflict issues

In order to examine whether gender differences occurred in regards to the types of conflict issues students reported, two separate chi-square tests were used with gender as the independent variable and conflict issue as the dependent variable. Results revealed that girls (31%) were more likely to report having disagreements over relational issues than boys (12%) were, $\chi^2(1, n = 113) = 18.21$, $p < .001$, resulting in a moderate to large effect size ($\Phi = .40$). Boys (5.3%), on the other hand, were more likely than girls (0.9%) to report having disagreements related to status and dominance, $\chi^2(1, n = 113) = 3.71$, $p < .05$, resulting in a small to moderate effect size ($\Phi = .18$).

Conflict resolution

In regards to resolution strategies, 40% of grade 4 students and 38% of grade 8 students reported using constructive tactics to end their disputes with peers. Alternatively, only 13% of the fourth graders and 7% of the eighth graders reported using destructive tactics. Two separate chi-square tests were used to assess whether these differences were significant. In both cases, grade level was used as the independent variable, whereas the resolution strategy was used as the dependent variable. The analyses failed to find any significant differences for either constructive, $\chi^2(1, n = 119) = .07$, *ns*; or destructive strategies, $\chi^2(1, n = 118) = 2.65$, *ns*.

Three separate chi-square analyses were also used to examine differences between gender (independent variable) and reported resolution strategies (dependent variable). The results indicated that girls (48%) were more likely to report using cooperative solutions than boys (29%), $\chi^2(1, n = 119) = 21.59$, $p < .001$, ($\Phi = .43$). The analyses failed to find any significant differences, however, between gen-

der and reports of assertive (4% of boys and girls), $\chi^2(1, n = 118) = .003$, *ns*; or aggressive strategies (11% of boys and 8% of girls), $\chi^2(1, n = 118) = .62$, *ns*.

Conflict affect

Finally, three separate chi-square analyses were used to examine differences between gender (independent variable) and affect following conflict (i.e., sad, happy, or indifferent). The results revealed that boys (32%) were more likely than girls (17%) to report feeling indifferent towards the conflict, $\chi^2(1, n = 115) = 10.68$, $p < .001$, ($\Phi = -.30$) and girls (40%) were more likely than boys (30%) to report feeling sad or upset $\chi^2(1, n = 116) = 3.78$, $p < .05$, ($\Phi = .18$). No significant differences were found, however, between gender and reports of feeling happy (18% of boys and 23% of girls), $\chi^2(1, n = 114) = .91$, *ns*.

Hypothetical conflict

To assess interaction effects between age, gender, and the type of resolution strategies that were generated on the AST, a MANOVA was conducted with age and gender as the independent variables and type of strategy as the dependent variables. An interaction occurred, which suggested grade 8 boys and girls were able to produce more cooperative solutions than their grade 4 counterparts. While no significant differences were found between 4th grade boys and girls, however, grade 8 girls did generate more cooperative solutions than their male counterparts $_{multi}F(5, 112) = 8.02$, $p < .05$. A small to moderate effect size was found ($\eta^2 = .06$, Power = .80) (see Table 2 for means and standard deviations).

An interaction effect was also found in terms of the effectiveness of solutions generated. Eighth graders generated more effective solutions than their grade 4 counterparts,

Table 2 Means and standard deviations of cooperative responses on the AST for age and gender

Gender	Cooperative Responses	
	M	SD
Male		
Grade 4	.133	.188
Grade 8	.533	.434
Total	.333	.388
Female		
Grade 4	.211	.321
Grade 8	.978	.419
Total	.594	.535
Total		
Grade 4	.172	.264
Grade 8	.756	.479
Total	.464	.484

Table 3 Means and standard deviations of effectiveness of AST solutions for age and gender

	Effectiveness of Responses	
Gender	M	SD
Male		
Grade 4	2.98	.588
Grade 8	3.08	.371
Total	3.03	.489
Female		
Grade 4	2.99	.345
Grade 8	3.39	.299
Total	3.19	.378
Total		
Grade 4	2.99	.478
Grade 8	3.23	.369
Total	3.11	.443

however, again this effect was stronger for females than for males $_{multi}F(5, 112) = 4.03$, $p < .05$. A small to moderate effect size was found ($\eta^2 = .03$, Power $= .51$) (see Table 3 for means and standard deviations).

Links between conflict management and adaptive skills

Finally, Pearson product moment correlations were used to assess whether there was a positive relationship between conflict management and prosocial behaviour. The resulting correlations between resolution strategies and adaptive skills are presented in Table 4. Although, no significant correlations were found between constructive resolution strategies and adaptive skills, a negative association did occur between prosocial abilities and the use of aggressive strategies. Positive links were also found between the effectiveness of the solutions generated and the ability to relate to other people. Though these correlations were significant, they accounted for only 4–7% of the variance and thus, must be interpreted with caution.

Table 4 Correlations between conflict management strategies and adaptive skills

	Conflict management (AST)		
Adaptive skills (BASC)	Cooperation	Aggression	Effectiveness
Teacher reports			
Adapt. skills comp.	.114	−.170	.061
Adaptability	.058	−.267*	.079
Leadership	.035	−.036	−.035
Social skills	.107	−.259**	.115
Self-report			
Pers. Adj. Comp	−.006	−.231*	.113
Interpers. relations	.045	−.211*	.187*

Note: $N = 120$

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

Discussion

Interpretation of results

The main purpose of this investigation was to explore age and gender differences in regards to the types of issues children and adolescents disagree upon, the resolution strategies they use to solve these problems, and their ability to generate solutions to possible conflicts. Both age and gender differences emerged.

Perceptions or reports of conflict

Frequency of conflict. Supporting the predictions made on conflict frequency, grade 8 students reported higher rates of disagreement than grade 4 students did, although these rates were small for both age groups. Children, for example, reported having disputes every two weeks or once a month. Adolescents, on the other hand, stated that they had approximately one disagreement a week, which is similar to the rates found by Raffaelli (1997). Cognitively, adolescents are starting to learn how to conceptualize, think in an abstract manner and understand multiple meanings. As a result, they may begin recognizing inconsistencies and/or inequalities in their relationships and challenging beliefs (Elkind, 1967; Hartup, 1992). Conflict, defined as mutual opposition over competing goals or views, may then be a natural part of development, gradually increasing over the years (Shantz, 1987). Hence, adolescents would be more likely to report higher rates than children would. The cognitive advances made by adolescents may also cause them to adopt broader definitions of the term, including both major and minor disagreements in their discussions, whereas children may be more likely to focus only on major arguments.

Though no significant differences were found in regards to the gender predictions that were made on conflict frequency, previous research on this subject has provided some inconsistent findings. Miller *et al.* (1986), for example, discovered that, in children, boys tended to have more disputes than their female counterparts. Similar findings were presented in Black's (2000) study suggesting adolescent boys argue more than girls do. Laursen (1993), however, found that adolescent girls were more likely to get into disagreements than boys of the same age. One possible reason for the lack of disparity between boys and girls in the present study may be that the Likert scale (1 = rare, 2 = once a week, 3 = more than once a week, 4 = once a day, and 5 = more than once a day), used to code frequency, was not specific enough to pick up subtle differences. Although high conflict frequency may suggest problems and warrant some attention, it is in the examination of conflict issues and strategies that practitioners and educators may find useful information to help develop appropriate curriculum. For

example, on the surface, disagreements related to dominance or status may be just as frequent as disputes involving relational matters; however, each would be treated differently on a practical level. Other factors, such as the content areas and resolution strategies must also be examined in order to understand conflict episodes and outcomes.

Conflict issues. In support of the predictions made towards gender and conflict issues, females were found to have more disputes concerning relational issues such as not being invited to a birthday party or disclosing a secret. Males (regardless of age), on the other hand, stated they had more disputes involving status or dominance; for example, they tended to argue over who was better at specific sports. These findings are consistent with previous research (e.g., Crick, 1996; Joshi and Ferris, 2002; Raffaelli, 1997) and support both biological and social constructionist views of gender development. Maccoby (2000) has suggested that biological predispositions may be highly dependent on environmental conditions and socialization practices. Males, for example, may have an instinctual need to dominate their peers, which may be further strengthened when these behaviours are reinforced. Conversely, girls may be rewarded for their sensitivity to social issues and nurturance, which may strengthen an instinctual desire to form close social groups in an effort to prepare for child-rearing. Because of this, girls may become more aware of the social nuances in their relationships and therefore, may be more affected when problems occur within them (Crombie, 1988).

Conflict resolution. Contrary to what was predicted, no differences were found between the types of strategies that children and adolescents reported to resolve their conflicts. These findings contradict previous research and theory, which have suggested that problem-solving strategies tend to become more sophisticated with age (Laursen *et al.*, 2001). Conflict resolution, however, has become a popular topic in schools today and as a result, teachers and school counsellors have become involved in instructing children about conflict and effective resolution strategies. The findings from this study revealed that a high percentage of both children (40%) and adolescents (38%) reported using constructive techniques, which may be reflective of these new teachings. In addition, because these findings were based on self-report, they may echo what the students have learned about conflict resolution, as opposed to what they would actually do in these situations. Although not done in this study, an examination of the differences between perceptions of conflict and actual performance would be beneficial to future studies.

In regards to gender differences in resolution strategies, girls were found to report using more cooperative techniques than boys were to solve their disputes. Prior research has shown that children's conflict goals are associated with resolution tactics; for example, girls tend to have more relationship maintenance goals and use more conflict-mitigating strategies than boys do, which is consistent with the results found in the present study (Chung and Asher, 1996; Rose and Asher, 1999). Although rates of conflict between boys and girls may be similar, it is clear that they do differ in their tactics and approaches to resolution. According to socialization theories, girls may be more likely to choose constructive techniques over destructive ones because they are reinforced for prosocial behaviour, whereas overt aggression and hostility are usually discouraged. By contrast, boys are reinforced for their aggressive behaviours and taught to stand firm when defending their rights. Therefore, they may be more likely to choose power assertive or aggressive tactics to end their disagreements (Beall, 1993; Chung and Asher, 1996).

Despite research that has supported this theory, however, the results from the present study revealed no significant differences between gender and more assertive strategies. This may be due, in part, to the rapid changes that have occurred in recent years with respect to gender roles. Females, for example, have become more involved in activities that were traditionally dominated by males (e.g., competitive sports) and because of this, may take on traits or behave in a more assertive manner, which may have been reflected in the present research. Though females may engage in the same amount of conflict as males, the tactics and approaches they use to end disagreements are different. As females were also more likely to report using cooperative strategies, it may be that girls employ a wider range of solutions in response to their disputes than do boys. Furthermore, these results show that though destructive strategies may be used, it does not always have to be to the detriment of constructive solutions.

Conflict affect. Finally, in agreement with the findings of Laursen (1993) and Raffaelli (1997), girls were found to report more negative affect following their conflicts, whereas boys tended to report indifference. This may occur because girls' peer relationships tend to be more exclusive (Crombie, 1988). Girls also tend to describe their friendships as more intimate than boys do (Azmitia *et al.*, 1998). Therefore, conflicts involving issues that damage social connections may have a greater impact on females. Some evidence of this may be seen in studies examining relational aggression, a strategy that tends to be used more often by girls than physical aggression is. Crick (1996) has suggested that relational aggression is a more effective way for girls to inflict harm upon others and its use may predict future maladjustment for its victims, particularly for girls. It is also possible, however, that boys are socialized to hide their feelings more than girls are. Just as aggression is discouraged in females, expressing emotion tends to be looked down upon in males. Therefore, while they may actually feel negative or positive affect following their conflicts, they may be less likely to report these feelings.

Hypothetical conflict

Although no differences were found between children's and adolescent's reports of the constructive and destructive strategies they used, significant differences were found between the solutions they generated in response to hypothetical situations. Specifically, 8th graders were able to come up with more cooperative and effective strategies than grade 4 students did. As the AST (Caplan *et al.*, 1986) is, to some degree, a measure of a student's knowledge of effective resolution tactics, these findings provide further support for cognitive developmental theory, suggesting that adolescents will be better able to handle conflict situations due to the cognitive skills they have acquired (Piaget, 1985). The discrepancies that were found in terms of self-reports and hypothetical responses may then reflect differences between what the student says they do in conflict situations as opposed to demonstrating their knowledge or awareness by generating as many solutions as they can.

In regards to gender predictions, the results also indicated that conflict management skills may develop earlier in females than in males, as girls from both grade levels were found to demonstrate more knowledge of cooperative and effective solutions than boys did. According to the gender-intensification hypothesis (Hill and Lynch, 1983), gender-typed behaviours may become strengthened during puberty. The physical changes that occur during this period may result in increased pressure for older children and adolescents to conform to socialization norms. As females tend to reach puberty earlier than males, they may also feel pressured to conform to gender stereotypes at an earlier age than males, which may cause girls to become more self-conscious and lower their self esteem. Therefore, when faced with conflict, girls may be more likely to behave in a prosocial manner than boys and use more conflict mitigating strategies in an effort to maintain connectedness with friends.

Links between conflict management and adaptive skills

Finally, the results from this study also revealed, to some degree, that successful conflict management may be indicative of social ability. Specifically, students who generated effective solutions to hypothetical conflict (e.g., cooperative and some assertive strategies) also tended to be more successful in their relationships with others. Alternatively, students who generated destructive solutions were more likely to have negative levels of adjustment, problems with their peers and fewer interpersonal skills. These students were also less likely to behave in a cooperative manner in their daily interactions as perceived by teachers. Previous research on aggressive children has supported these findings suggesting that children who display these qualities also have numerous social informational processing deficits including the ability to construct assertive solutions (Lochman and Dodge, 1994; Webster-Stratton and Lindsay, 1999). In addition, these children also tend to attribute other's intentions as hostile, which may be reflected in the results of the present study. Interestingly, there were more significant negative correlations between aggressive solutions and prosocial behaviour than there were significant positive correlations between cooperative solutions and adaptive skills. Because there are other constructive strategies on the AST besides cooperation (i.e., passive, assertive, non-confrontational), it may be that students who exhibit prosocial behaviours choose from a wider range of constructive strategies than those who are not as successful on social tasks.

Another explanation, however, may be that students who endorse destructive solutions in response to hypothetical scenarios fall into a more extreme group. Though some students may respond to real life conflict with negative behaviours, at least some of these students will have knowledge of effective and socially appropriate strategies and will provide these on hypothetical tasks. Therefore, the link between cooperative strategies and prosocial behaviour may not be quite as strong as the one between aggressive strategies and social problems. These findings are supported by previous research showing that children with social problems tend to have difficulty resolving conflict situations (e.g., D'Zurilla *et al.*, 1998; Goodman *et al.*, 1995; Rudolph *et al.*, 1994). Rudolph *et al.*, for example, found that children with internalizing and externalizing symptoms had high rates of social impairment and tended to exhibit hostile problem-solving strategies.

Limitations

Although many of the findings in the present investigation are supported by past theory and research, the following limitations should be considered. First of all, this research relied primarily on self-report data. While this method is valid for describing what people perceive (especially partner's views in dyadic conflict), employing multi-informant and observational measures would further enhance future research in the area. Another challenge involved the use of a dichotomous scale to code interview data. This format limited the types of analyses that could be conducted as well as the kinds of questions that were asked. For example, it would be interesting to explore the conditions under which conflict leads to positive or negative outcomes and whether conflict resolution acts as a moderator or mediator in the relationship between conflict frequency and adjustment. A final limitation of the present study was the lack of generalizability of the sample to other populations due to its small size and middle class, Caucasian composition. Inner city students, for example, may concern themselves with different types of conflict issues and may use different methods to resolve their disputes than children and adolescents from a middle class background would.

Therefore, context may be an important aspect to consider and would enhance further investigations.

Examining whether certain social problems are resolved with the use of specific strategies would be particularly useful in the development of more effective intervention programs.

Future directions and implications

Despite these limitations, however, the present investigation does provide support for previous research and further adds to it by broadening the scope of knowledge on two specific age groups, while considering gender issues. The findings of this study indicate, for example, the value of looking beyond surface issues such as conflict frequency to reveal a more complete picture and help us better understand the processes and functions of constructive and destructive styles of problem solving. Examining subcomponents, such as the precipitating events and resolution strategies used to end disputes, not only provides us with meaningful information as to the types of concerns boys and girls have at different ages but also allows us to determine the cognitive and social capabilities of these age groups.

Historically, adolescence has been referred to as a challenging developmental phase (Nichols and Good, 2004). However, there is growing evidence to suggest that adolescents have the ability to consider higher-level solutions to their peer conflicts. Therefore, it would be beneficial for adults working with students, especially adolescents, to engage them in developing social skills curriculum. For example, holding small focus groups can provide valuable information regarding (a) conflict issues and gender themes (b) a generation of acceptable solutions, and (c) practice of viable strategies. Youth can be encouraged to share their experiences and perceptions of conflict, and together with parents, practitioners and/or educators, work to develop authentic interventions that will address their specific needs.

Another alternative that clinicians and/or teachers may consider involves administering brief surveys to individual classrooms in order to determine the types of issues boys and girls are facing and how they are dealing with social problems. As issues and resolution strategies may vary depending on context (i.e., from school to school), this technique would allow practitioners to use student specific information and tailor prevention and intervention sessions to meet particular group needs. Adults working with youth may then be able to better structure activities around age and gender specific issues so that their students experience success in using more effective resolution strategies. For example, teachers could have students participate in games or sports where disputes related to status or dominance typically occur. By structuring the setting, and allowing the students to use their newly acquired skills, they may be more likely to experience success and use these skills more often in their everyday lives.

In conclusion, the findings of the current investigation reinforce the notion that peer conflict can be a positive event as well as a negative one and may differentially impact the cognitive and social development of children and adolescents. Understanding both the commonalities and differences in male and female groups of children and adolescents is the first step in developing relevant intervention programs.

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