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The Science of Relational Aggression *Can We Guide Intervention?*

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A preventive intervention research cycle is often necessary when attempting to moderate a complex problem such as aggression (Heller, 1996; Poulin, Dishion, & Burraston, 2001). The first step in this cycle includes defining the problem, developing measures for accurate assessment, and documenting prevalence. Ideally, these studies are at first moderate in size, but later include epidemiological studies with large, population-based samples. This step also examines subpopulations to identify those with the highest rates of the behavior. The second step should include developmental research to determine who is most likely to engage in high levels of the behavior during which period(s) of life, who is at risk of continuing or escalating the behavior, and how detrimental effects of the problem behavior vary by age.

The third part of the preventive intervention research cycle involves examining the precursors and correlates of the behavior so that interventions can also be targeted toward the *processes* that lead to problem behavior,

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in addition to the behavior of interest (Catalano, Hawkins, Berglund, Pollard, & Arthur, 2002). Concurrent with these efforts, the development of comprehensive models and other theoretical insights often take place. Once these research tasks provide substantial explanation of the targeted problem, interventions developed from this foundation have the greatest potential to be effective. Next, evaluations of these interventions determine effectiveness and, in turn, inform theory and future empirical research, completing a first cycle.

Frequently, however, once a problem is recognized and publicized, community members, government and nongovernmental agencies, policymakers, and concerned individuals find the problem too great and deserving of intervention to wait for some of these important research tasks to be conducted before implementing programs. In fact, evaluation of programs becomes difficult because, for example, schools may deem the problem so important that being in a control group is not acceptable. Relational aggression and victimization among youths and adults has recently received this attention in the U.S., Canada, Australia, and other countries. Relational aggression is defined as "behaviors that harm others through damage (or threat of damage) to relationships or feelings of acceptance, friendship, or group inclusion" (Crick et al., 1999, p. 77). Relational aggression includes, for example, social exclusion or spreading rumors with the intent to harm others, or as a form of retaliation (Crick & Grotpeter, 1995). In contrast to physical aggression in which the agent of harm is actual or threatened physical damage, relational aggression involves actual or threatened damage to relationships as the vehicle of harm.

Many U.S. television programs and other media outlets (e.g., *The Oprah Winfrey Show*, *The New York Times*) and more than 10 popular books (e.g., Simmons, 2002) have concentrated on aggressive females and relational forms of aggression since the year 2000. These accounts have attributed many social and psychological problems to relational aggression and victimization, particularly among females. This recent media coverage has contributed to the growing interest in campaigns to increase awareness of relational aggression and victimization, and to implement interventions, especially among females. Given this interest, it is time to consider the state of more rigorous, empirically-based information on relational aggression and victimization within the context of the preventive intervention research cycle.

As a first step toward addressing this issue, we address four topics in this chapter. Consistent with the first goal of a preventative research cycle, we focus on the definition and nature of relational, social, and indirect forms of aggression. Part of the difficulty in understanding the popular media's presentation of relational aggression stems from differing opinions

about what constitutes a normative level of gossiping and exclusion, and what is inappropriate and candidate for intervention. Hence, we describe what differentiates normal levels of nonphysical forms of aggression from problematic levels, and we describe the prevalence of these behaviors. We also consider that these forms of aggression can be covert in nature, thus hampering their assessment.

Next, we focus on whether intervention for relationally aggressive behaviors is a necessary endeavor and highlight some of the controversy surrounding this issue. The controversy primarily involves the second step of the research cycle in which the detrimental effects of the problem behaviors should be documented before intervention is warranted. To address the third step of the preventive intervention research cycle, we review studies of the correlates and potential contributing factors to nonphysical forms of aggression. Our concluding topic concerns whether there is a research base on which to develop interventions for relational aggression that can, at best, reduce problem behaviors and, at least, do not harm.

DEFINITION, MEASUREMENT, AND PREVALENCE OF RELATIONAL AGGRESSION AND VICTIMIZATION

According to Crick and colleagues (e.g., Crick & Grotpeter, 1995), relational aggression involves both direct behaviors (e.g., telling someone "you can't come to my birthday party unless you give me that sandwich") and indirect acts (e.g., getting even with someone by giving them the silent treatment). Although this definition has been used widely, a brief review of studies of nonphysical forms of aggression reveals some lack of consensus in terminology and definitions of the phenomenon. Other commonly used terms include indirect aggression (e.g., Bjorkqvist, Lagerspetz, & Kaukianen, 1992) and social aggression (e.g., Galen & Underwood, 1997). As the term implies, indirect aggression involves hostile acts that are nonconfrontational in nature. Thus, it involves some covert behaviors that overlap with relational aggression (e.g., spreading rumors); however, it does not capture relationally aggressive acts that are more direct (e.g., saying "I won't be your friend if you don't share that ice cream with me"). Further, in contrast to relational aggression, indirect aggression can include covert behaviors that do not involve manipulation of relationships (e.g., putting sugar in someone's gas tank). Relational aggression can also be differentiated from social aggression. Although definitions of social aggression have been offered by a number of investigators, including Patterson (Patterson, Reid, & Dishion, 1982) who considered the term to refer to physical acts of hostility, Galen and Underwood (1997) proposed that social aggression

refers to behaviors that attack another's self esteem or social status. Hence, verbal insults (calling someone mean names) could be considered social aggression because insults are likely to damage self-esteem; however, these acts would not be considered relational aggression because relationships were not the agent of harm.

Given the different definitions and the number of researchers investigating the topic, it is not surprising that a range of measurement techniques have been used to assess relational, and related forms of, aggression. The majority of researchers have utilized peer nomination techniques in which classmates identify those who are relationally aggressive or victimized by using a list of behaviors such as social exclusion, ignoring, and threatening to end friendships (Crick & Grotpeter, 1995). Others use observational methods (e.g., Ostrov & Keating, *in press*); focus groups or interviews (e.g., Owens, Shute, & Slee, 2000a), self-report measures (e.g., Lagerspetz, Bjorkqvist, & Peltonen, 1988), or teacher reports (e.g., Crick, Casas, & Mosher, 1997). Regardless of the method used, the data gathered all tend to have some limitations that can affect findings and lead to inconsistent descriptions of the nature of relational aggression. For example, highly skewed distributions can result because only a minority of individuals is identified as victimized or as engaging in moderate to high levels of relational aggression. The source of information may also impact our understanding of relational aggression. Different reporters may have differential access to the observation of the targeted behaviors and, if so, this may introduce bias into reports. Overall, the variety of definitions and measurement techniques may be one reason for varying prevalence rates and differing conclusions about populations most likely to engage in relationally aggressive behaviors and most likely to be victims.

Lack of attention to developmental differences may be another cause of differing conclusions regarding prevalence and consequences of relational aggression. Often findings related to relational aggression differ according to the age group studied, and researchers have noted these inconsistent findings. That relational aggression is associated with maladjustment during early and middle childhood (e.g., Crick, 1996), but associated, in some cases, with increased acceptance or popularity among adolescents (e.g., Salmivalli, Kaukiainen, & Lagerspetz, 2000), does not necessarily indicate poor construct validity. Rather, these investigations point to a developmental phenomenon potentially worthy of additional exploration. Specifically, the impact of socially manipulative behaviors may change as the nature and relevance of friendships, cliques, and same and opposite sex peer groups changes. It appears that processes involved in relational aggression unfold over time.

There have also been many different evidence-based conclusions regarding which relationally aggressive behaviors and what level of behaviors are normative, rather than deviant or problematic. It has been argued that, at low or moderate levels, relationally aggressive behavior is common and normative. At some point, most people have gossiped, ignored, or intentionally excluded someone. Further, these behaviors have been found to have some beneficial purposes, such as an opportunity for discussing an interpersonal conflict with a third party or letting a peer know, through gossiping, that a child may need some assistance (Underwood, Galen, & Paquette, 2001). However, gossiping to be helpful to a peer does not appear to be consistent with the construct of nonphysical aggression and can contribute to continued difficulty defining this construct. Gossiping can be used to gain assistance for a peer, to build rapport (i.e., feelings of group inclusion), or to harm another's reputation and relationships. Importantly, however, definitions of aggression typically are based on either the intent to harm (a focus on the intent of the behavior) and/or the actual delivery of harm (a focus on the consequences of the behavior). These criteria are not met when the goal is to assist a friend. To facilitate a consensus on the nature of relational aggression, behaviors included in the definition and in assessments should include only those acts that involve the intent and/or actual delivery of harm.

The difficulty of differentiating normal from problem behavior is not unique to the study of relational aggression. Problem behaviors are often best described along a continuum (e.g., Caron & Rutter, 1991). Maladaptive behaviors or symptoms of psychological disorders are observed, to some degree, in normal populations. A degree of physical aggression is common among young children (Coie & Dodge, 1998); mild depressed mood may be expected at times of high stress and during important life transitions; symptoms of anxiety disorders, particularly phobias and separation anxiety (Malcarne & Hansdottir, 2001), are commonly exhibited among children. Thus, professionals have criteria for determining when a pattern of behavior is pathological or deviant. These criteria include a meaningful cluster of maladaptive behaviors that are present at a clinically significant level, cause significant distress and/or impairment in functioning (American Psychiatric Association, 1994), and interfere with the successful accomplishment of necessary developmental tasks (Cicchetti & Cohen, 1995). Although generally well-adjusted individuals may use tactics similar to relational aggression, research has demonstrated that engagement in a variety of these behaviors at relatively high levels is often pathological. Specifically, these behaviors have been associated with maladjustment (Crick, 1996) and they interfere with developmental tasks such as peer relations and friendships (Grotperter & Crick, 1996).

Few studies have reported the proportion of youths who engage in moderate or high levels of relational aggression or experience this level of relational victimization. Further, studies in which this issue has been addressed often use assessment methods that are less than ideal for evaluating prevalence (e.g., children's narratives; Xie, Swift, Cairns, & Cairns, 2002). Most existing investigations have included average aggression scores or group comparisons (e.g., males vs. females) of average levels of aggression. This is not the most useful information when the task is to estimate the size of the population that will benefit and to develop interventions to aid this group. Estimates become more difficult to obtain when age- and gender-specific prevalence rates are required to develop interventions for a particular subgroup. In sum, it is time for a review of the literature to estimate prevalence of relational aggression within gender and age groups, and to identify gaps in our knowledge of prevalence. The need and impact of an intervention at a population level is difficult to estimate without this epidemiological information.

IS RELATIONAL AGGRESSION A PROBLEM?

Relational aggression can interfere with succeeding at an essential developmental task of middle childhood, that of forming and maintaining intimate, close relationships with peers, and this is true for the victims and the aggressors (Crick, Casas, & Nelson, 2002). Researchers have reported associations between relational aggression and peer rejection among preschoolers (Crick et al., 1997), elementary school children (Rys & Bear, 1997), and college students (Werner & Crick, 1999). Relationally aggressive children are also more lonely than nonrelationally aggressive children (Prinstein, Boergers, & Vernberg, 2001). Similarly, victims of relational aggression exhibit increased levels of a number of social difficulties including peer rejection, social avoidance, social anxiety, and loneliness (Craig, 1998; Crick & Bigbee, 1998). In addition to difficulties with social relationships, other forms of maladjustment are elevated among aggressors and victims of relational aggression, namely externalizing and internalizing problems (Crick & Bigbee, 1998; Prinstein et al., 2001).

Although engagement in relational aggression has been associated with children's adjustment problems, some behaviors that fall within the domain of relational aggression also accompany positive functioning at some ages and in some contexts (e.g., Salmivalli et al., 2000). Others have reported no association between social aggression and maladjustment including academic competence, popularity and affiliation (Xie et al., 2002). A recent study, however, illustrates that these findings may not be

contradictory. Using a combination of reports of who is “popular” and who is “liked”, girls who were popular but not as well-liked were more relationally aggressive (Lease, Kennedy, & Axelrod, 2002). It may be that relationally aggressive girls can be centrally located in the peer group and accepted by some, but not as well-liked as others who are not relationally aggressive. Consistent with this hypothesis, Crick and Grotpeter (1995) showed that relationally aggressive children are significantly more likely than nonrelationally aggressive peers to be categorized as controversial in sociometric status. That is, they are both highly liked (probably by friends) and highly disliked (probably by victims) by their agemates.

If relationally aggressive behaviors (which are, by definition, done with the intent to harm) are associated with some aspects of positive functioning, these data partly explain why individuals continue to aggress and why it is difficult to persuade youths to discontinue these behaviors. However, the same relationally aggressive episodes that may result in a “positive” outcome (e.g., keeping a peer in an exclusive relationship) may at the same time lead to aversive consequences (e.g., making the targeted peer resentful; making the actor less desirable as friend in the eyes of other children). Nevertheless, although a few studies point to some personal advantages of involvement in relational aggression for the perpetrators, the numerous studies of adjustment and relational aggression described previously clearly demonstrate that relational aggression is clearly dysfunctional at times or at certain levels, as is relational victimization. Thus, a complete understanding of the nature of aggression and its positive and negative features is a worthwhile task. However, researchers must be concise in their interpretations of this data and clearly indicate the contexts in which particular aspects of aggression are linked with psychosocial functioning. This precise explication of findings will prevent misinterpretation or over-generalization of results.

RELATIONAL AGGRESSION, GENDER, AND AGE

One quick search of the Internet reveals that the popular media emphasize the participation of girls in relational aggression to the neglect of boys. It is clear that boys are more physically aggressive than girls, and when levels of physical and relational aggression are compared, girls are more likely to use relational aggression only, whereas boys often use both physical and relational aggression (Coie & Dodge, 1998; Crick, 1997). Girls are found to be more relationally or indirectly aggressive than boys in most studies; however, some have found that boys are more relationally aggressive than girls (David & Kistner, 2000). Also, girls and boys may, at

particular ages, engage in relational aggression to the same degree (e.g., Rys & Bear, 1997). These discrepancies may be largely due to methodological variations in assessment. Researchers have used approaches that are likely to involve biases (e.g., teacher report, self report), however, those using more objective approaches (e.g., naturalistic observations) have consistently found girls to be significantly more relationally aggressive than boys for children as young as the preschool years (e.g., Ostrov & Keating, in press).

THE STATE OF THE EVIDENCE: ARE WE READY TO INTERVENE?

We next consider whether we have enough information about the prevalence, effects, and antecedents of relational aggression to launch effective intervention efforts. After more than 40 years of developmental studies of physical aggression and antisocial behavior, beginning even before the pioneering studies of Glueck and Glueck (1968), Robins (1978), and Patterson (Patterson et al., 1982), some within the field have only recently converged on theories and intervention programs that are documenting effectiveness. Some of the most promising models for preventing antisocial behavior require a multi-faceted approach. Dodge (1993) reviews the literature in this area and explains how this approach focuses on processes leading to problem behaviors and promotes positive youth development by addressing the quality of the parent-child relationship, parenting skills, children's social cognitions, peer group relationships (e.g., deviancy training), academic problems, and low quality neighborhoods.

In comparison to the history of research on physical aggression and related problems, the study of nonphysical forms of aggression is new, with increased attention to the phenomenon occurring only in the late 1980s and early 1990s. Thus, this is a young field of research and it is difficult to be entirely comfortable with the application of this limited knowledge base in order to develop comprehensive and effective interventions for relationally aggressive children. Yet, the explosion of media coverage regarding aggressive girls has led to the implementation of programs that target these behaviors. However, care and caution is advised. As others have found in the area of physical aggression (Poulin et al., 2001), some approaches to intervention that appear reasonable on the surface have been found to cause harm when rigorously evaluated.

An example of a possibly premature intervention strategy comes from a school-based effort designed to decrease the use of relational aggression among girls that was recently described in the *New York Times Magazine* (Talbot, 2002). Students attended classes to learn how to be friendlier with

each other. This intervention seemed to promote awareness of relational aggression and allowed the girls to discuss peer difficulties with an adult. The nature of the intervention, however, raises a number of potential concerns which highlight the need for both research-based programs and outcome evaluation. First, the intervention targeted only females, whereas studies show that a significant number of males also engage in relational aggression (e.g., Rys & Bear, 1997). Second, aggressors and victims interacted in groups, creating potential for revictimization. This was particularly likely when girls were instructed to write anonymous apology notes that were read by instructors to the groups. One letter included the following: "I'm sorry that I talked about you behind your back. I once even compared your forehead/face to a minefield . . . I'm really sorry I said these things even though I might still believe them." (Talbot, 2002, p. 26). This repetition of the comments made may have resulted in further damage to at least one member of the group. A research based approach to relational aggression may have led these interventionists in a different direction — one which may be potentially less harmful and more effective. Specifically, group forms of intervention for aggressive children have often been contra-indicated because children share deviant experiences and can encourage each other's continued aggressive behavior (Poulin et al., 2001). Researchers have also noted that, to avoid having a negative impact and further ostracizing victims of relational aggression, teachers often try to surreptitiously assist victims. Teachers may facilitate a child's integration into a peer group without drawing attention to the child (Owens, Slee, & Shute, 2000b). Thus, interventionists are again cautioned to base their programs on existing research, and are reminded of the importance of determining the effectiveness of their efforts.

We believe we do have a sufficient knowledge base from which to draw information to begin small-scale intervention and experimental research studies directed at curbing the excessive use of nonphysical forms of aggression. Relatively few studies have examined antecedents of relational aggression and none of the available investigations have employed designs that illuminate direction of effect. Keeping in mind these limitations, however, we describe the relevant findings and comment on their potential usefulness for developing interventions.

Children who are relationally aggressive tend to have friendships marked by certain characteristics. They have elevated anxiety about maintaining relationships and place a great importance on having close, exclusive relationships. Relationally aggressive children maintain friendships that are high in intimacy, and in exclusivity or jealousy (Grotzinger & Crick, 1996). Children who are sensitive to loss or abandonment and feel their friendships are precarious may use relationally aggressive strategies in an attempt to intensify their relationships. They may exclude those who will

potentially threaten their friendships, and may use aggressive strategies to control and manipulate their friends to maintain relationships. Recent theory has also proposed that relational victimization may lead to high sensitivity to rejection by others, and future problems in relationships (Downey, Bonica, & Rincon, 1999).

There is some evidence that the family relationships of relationally aggressive children have a number of characteristics in common with their friendships. Specifically, the parent-child relationships of relationally aggressive children have been shown to involve relatively high levels of desire for exclusivity as well as jealousy exhibited toward the child by the parent (e.g., mother may convey that she wants more exclusive interaction with her daughter and seek to exclude other family members or friends). In addition, relationally aggressive children have been shown to play the role of peacemaker when their parents fight (Crick et al., 1999). Taken together, these findings suggest that relationally aggressive children may develop a relatively high level of perceived control over relationships or the perceived *need* to control relationships as a result of their interactions with family and friends. If so, these issues may be an important focus of future intervention efforts. Further, interviews and discussion groups of adolescent girls and their teachers revealed that girls use some indirect forms of relational aggression in an attempt to maintain close relationships and to be a part of their group (Owens et al., 2000a). These findings point toward teaching social problem solving skills and encouraging proactive attempts at social inclusion such as engaging in school activities, clubs, or sports.

Social-information processing research also highlights a possible avenue for intervention. Several studies have shown that, relative to peers, relationally aggressive children exhibit hostile attributional biases when confronted with relational conflicts (Crick, Grotpeter, & Bigbee, 2002). That is, they are more likely than peers to perceive that relational slights have occurred for hostile reasons when that is not necessarily the case. These types of processing biases may increase the likelihood of future engagement in aggression (i.e., relational aggression may be used as retaliation); however, empirical verification of this idea awaits future research.

Similar to physical aggression, relational aggression is often linked with peer rejection (Crick & Grotpeter, 1995). However, some studies find that relational aggression may increase one's status among some peers, especially during adolescence (Salmivalli et al., 2000). Hence, social skill training may be warranted for some provocateurs at some ages, but interventions in middle school might be more effective if they are targeted at school climate or peer groups and acceptance of, and support for, these behaviors. To further protect victims from additional negative interactions with peers, separate intervention efforts for aggressors and victims might

be warranted. In fact, research indicates that aggressors need to learn more appropriate social skills and self-control strategies and parent involvement is often warranted (Coie & Dodge, 1998), whereas victims may require activities to improve self-worth and feelings of competence or assertiveness training (Juvonen & Graham, 2001; Olweus, 1994).

Overall, there are challenges to enacting interventions against indirect (or relational) aggression. Consideration of the form of the intervention must also depend on age, gender, and past behavior or participants. Often the idea of implementing a comprehensive intervention can be very daunting and expensive. Not only can the high cost of such efforts serve as an obstacle to successful implementation, but schools can often be overwhelmed with programs ranging from friendship groups to substance use prevention. Schools may have difficulty making priorities or are more convinced by strong advocates than evidence of need.

Fortunately, a simple and relatively inexpensive intervention that focuses on awareness of the problem has shown to be an effective first step toward reducing aggression. Olweus (1994) informed teachers and parents that physical aggression and victimization are serious problems plaguing schools. This increased education was effective in reducing bully and victim problems. Although Olweus' campaign was primarily targeted toward physical forms of aggression, such an approach might be particularly important for reducing relational aggression. As discussed above, although parents and teachers are likely aware of the presence of relational aggression and victimization among children, they may not be aware of the prevalence of the problem and the potential deleterious effects of such behavior, namely, maladjustment among perpetrators and, especially, victims. Further, relational aggression and victimization may not be as easily detected as physical forms. To address this difficulty, teachers and parents might be instructed to take children's reports of relationally aggressive attacks seriously, and to intervene, particularly when these reports are repeated. Increased monitoring during unstructured time (e.g., recess, hallways) has been recommended to prevent physical aggression (Olweus, 1994), and it will also likely reduce the occurrence of relational aggression and facilitate its detection.

To implement these recommendations, an appropriate first step should be to undertake a campaign to promote awareness of the problem among parents and teachers, and the effects of such campaigns on children's behaviors should be evaluated. Olweus (1994) comments on the importance of intervening at the level of the community, school, classroom, and the individual. Thus, a more involved intervention strategy would include instructing parents and teachers on how to manage aggressive children and how to assist victims of aggression.

Programs might include teaching children to identify relational aggression and instructing them on how to respond (e.g., by trying to include the victim or refusing to participate in group exclusion). Less research addresses this aspect of intervention, but it seems that a useful strategy would be to add a focus on relational aggression to existing programs on bullying and physical aggression that have some evidence of effectiveness, and to assess the effects of these programs on relational aggression and victimization (e.g., Leff, Power, Manz, Costigan, & Nabors, 2001).

Of course, the overall form of the intervention may also vary according to the goals of the program (e.g., reduced aggression, increased assertiveness for victims, increased social skills, reduced distress/maladjustment). Interventionists should also be cognizant of our limited evidence regarding age-related differences in the nature and impact of relational aggression, and be careful not to apply the same intervention strategies for both younger and older children. Similarly, boys and girls may benefit from intervention to reduce relational aggression, but the strategies that may be most effective for girls may differ from those used for boys. It is crucial for interventionists to be aware that our knowledge of the antecedents of relational aggression is limited at this point. This will significantly reduce the scope of intervention approaches until the necessary empirical information is available.

In sum, intervention approaches to address relational aggression are currently being implemented. We are now at a point where the research can begin to direct the design, implementation, and evaluation of small-scale intensive interventions or larger information campaigns. However, some current efforts may be premature. It seems more productive to first expand existing well-designed school-based interventions for bullying and physical aggression to include a focus on relational aggression (i.e., adapt them to be appropriate for targeting relational aggression, if possible). Future evaluation of these programs should also include an assessment of relational aggression (e.g., attitudes, intended behaviors, and actual behaviors). These outcome studies will, in turn, lead to revisions in the theories of relational aggression, and ultimately to a better explication of the nature and impact of relational aggression on children and adults.

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