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URBAN ADOLESCENTS' COGNITIVE RESPONSES TO PEER VICTIMIZATION:
DOES PSYCHOSOCIAL ADJUSTMENT PLAY A ROLE?

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of
Philosophy at Virginia Commonwealth University.

by
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Abstract

URBAN ADOLESCENTS' COGNITIVE RESPONSES TO PEER VICTIMIZATION: DOES PSYCHOSOCIAL ADJUSTMENT PLAY A ROLE?

by Amie Bettencourt, M.S.

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy at Virginia Commonwealth University.

Virginia Commonwealth University, 2010

Major Director: Albert Farrell, Ph.D., Professor, Department of Psychology

Peer victimization is characterized by acts of physical, relational, and verbal aggression that can contribute to maladjustment. Youths' responses to peer victimization are guided by social information-processing (SIP) skills that impact their adjustment. Maladjustment can contribute to biases in SIP. Biased processing occurs when youth rely on existing schemas without attending to cues from the immediate social context. These processing deficits contribute to the enactment of problematic responses that may lead to further maladjustment. However, not all youth exhibit SIP deficits. A recent study identified four adjustment clusters based on differences in aggression, anxiety, depression, social acceptance, and victimization within a predominantly African American sample of adolescents (Sullivan & Farrell, 2008). These clusters included aggressive-victims, passive-victims, neglected youth, and well-adjusted youth. Data suggest that cluster membership influences SIP and responses to peer victimization. This study used latent profile analysis (LPA) and the Articulated Thoughts in Simulated Situations (ATSS) paradigm, a think-aloud approach to cognitive assessment, to examine differences in SIP between well-adjusted youth and subgroups of maladjusted youth in response to simulated peer victimization situations.

Participants included a primarily African American sample of 523 sixth grade students who completed a series of self-report measures of adjustment. LPA identified a four-class solution that included: Aggressive-victims, Aggressors, Passive-victims, and Well-adjusted youth. This model closely approximated the clusters previously identified. However, the current solution includes a purely aggressive group whereas the prior solution contained a neglected group. A sub-sample of 176 students was then randomly selected to complete ATSS interviews. Logistic regression was used to examine SIP pattern differences across the groups. As hypothesized, aggressors and aggressive-victims were more likely to report intentions to engage in physical aggression compared to well-adjusted youth. In addition, aggressors were more likely to report beliefs that it is ok to fight in response to physical aggression compared to their well-adjusted peers. Further, well-adjusted youth were more likely to report intentions to behave nonviolently compared to their maladjusted peers. However, six of the ten hypotheses were not supported. Additional findings related to gender differences and situation-specific SIP patterns were identified. These findings have important implications for violence prevention interventions.

Urban adolescents' cognitive responses to peer victimization: Does psychosocial adjustment play a role?

Adolescence is a critical developmental period characterized by significant shifts in youth's biological, psychological and social roles (Holmbeck, 1994). Youth's exposure to both negative and positive stressors during this period influences their individual development (Gore & Eckenrode, 1994). Certain dimensions of a life event influence whether youth will appraise the event as stressful, and determine how youth will subsequently respond to it (Lazarus & Folkman, 1984). Exposure to events appraised as stressful is common among urban youth. Furthermore, research suggests that the experience of stressful life events is significantly associated with adjustment problems within this population (Attar, Guerra, & Tolan, 1994; Compas et. al, 1989; Guerra et al, 1995).

Stressful life events that occur within the context of interpersonal relationships are particularly problematic for adolescents (Farrell, Ampy, & Meyer, 1998; Kochenderfer-Ladd & Skinner, 2002). Bronfenbrenner and Ceci (1994) found that an individual's interactions with others, including peers, represent a critical proximal process that influences development. Stressful life events that are marked by conflict and occur within the context of an interpersonal relationship are particularly difficult for adolescents (Crean, 2004). During adolescence, there is a noticeable shift in relationship emphasis from parents toward peers. Social interactions with and approval from the peer group become increasingly important, and family opinions and views diminish in relative importance during this period (Baumrind, 1987; Holmbeck, 1994). This shift increases youths' risk for social and psychological problems resulting from peer victimization experiences. Peer victimization is characterized by acts of physical, relational and verbal victimization. Physical victimization involves physical harm or the threat of such harm through physical acts such as pushing or hitting

(Crick, Casas, & Ku, 1999). Relational victimization involves the manipulation of peer relationships with the intention of damaging an individual's social goals (i.e., establishing close dyadic ties) through purposeful group exclusion (Crick & Bigbee, 1998). Verbal victimization is confrontational in nature and involves being the target of name calling, teasing, and verbal threats (Kochenderfer & Ladd, 1996).

Verbal victimization is a prevalent form of peer aggression (Kochenderfer & Ladd, 1996; Perry, Kusel, & Perry, 1988). Kochenderfer and Ladd (1996) found that within a primarily Caucasian sample of kindergarteners, exposure to instances of direct verbal aggression (i.e., teasing) and general aggression (i.e., being picked on by peers) was significantly more common compared to physical or indirect verbal aggression (i.e., rumor spreading). Verbal victimization was also identified as the most common problem among a sample of African American adolescents from a Southeastern urban area who participated in focus groups (Farrell et. al, 1998). Past research suggests that verbal victimization is more prevalent than physical victimization across all age groups (Perry et al., 1988). Further, instances involving verbal aggression are posited to be stressful because of the hurtful content of the verbal messages internalized by the victim (Graham & Juvonen, 1998).

Relational victimization is a common and difficult stressor for youth (Crick & Bigbee, 1998; Crick, Casas, & Ku, 1999; Crick & Grotpeter, 1996). One study found that 63% of a predominantly Caucasian sample of third to sixth grade students reported experiencing either relational or physical forms of victimization but not both, supporting the notion that relational victimization represents a distinct form of peer victimization (Crick & Grotpeter, 1996). Relational victimization is influenced by the developmental context in which it occurs, with relationally aggressive acts becoming increasingly complex and

encompassing both same-sex and opposite-sex peers as youth move toward adolescence (Crick et al., 2001). In addition, there is evidence that youth interpret these relationally aggressive acts as hostile and mean (Crick, Bigbee, & Howes, 1996) making these experiences particularly problematic for adolescents.

Acts of physical aggression are also relatively common and problematic for youth (Crick et al., 1999; Crick & Bigbee, 1998; Crick & Grotpeter, 1996). Kochenderfer and Ladd (1996) found that 43% of a predominantly Caucasian sample of kindergarteners reported being physically victimized by their peers. Similarly, 49% of a predominantly African American sample of eighth graders reported being physically victimized at least once in the previous month (Sullivan, Farrell, & Kliewer, 2006). It is hypothesized that experiencing physical victimization is stressful because it communicates to the victim that they are vulnerable to attacks by bigger, stronger peers, and are incapable of keeping themselves safe from these attacks (Kochenderfer & Ladd, 2001).

The manner in which youth respond to peer victimization experiences impacts their adjustment. Being the target of verbal, relational, and physically aggressive acts has been associated with a variety of adjustment problems (e.g., anxiety, aggression, depression) (Crick & Bigbee, 1998; Farrell et. al, 1998; Hanish & Guerra, 2002; Storch, Nock, Masia-Warner & Barlas, 2003; Vuijk, van Lier, Crijnen, & Huizink, 2007). However, not all victims of peer victimization are maladjusted. The way youth choose to respond to these types of situations is guided by social information-processing skills (i.e., cue interpretation). Crick and Dodge's (1994) social information-processing model describes how youth organize and decide to respond to social situations. According to this model, responses arise after a series of mental steps that include encoding and interpreting cues, selecting goals, accessing and

constructing responses, and deciding on a response. Youth's social information-processing patterns are associated with individual differences in adjustment (Huesmann, 1988).

Psychosocial maladjustment can contribute to biases in social information-processing. Biased processing can occur when youth rely exclusively on existing internal structured knowledge about past social interactions (schemas) without attending to cues from the immediate social context (Crick & Dodge, 1994). Reliance on schemas can influence a host of internal factors (i.e. attribution style, response generation) and can impact processing at any step. For instance, schemas can influence youth to interpret peers' intentions as hostile in an ambiguous situation. Schemas can also impact youth's ability to generate responses and their selection of a response (i.e. favoring aggression) (Crick & Dodge, 1994). These processing deficits contribute to the enactment of responses that may lead to further conflict and maladjustment. However, not all youth exhibit social information-processing deficits or biases.

Behavioral classification techniques have been used to understand differences in the development and maintenance of psychopathology among youth (Hanish & Guerra, 2004). A range of studies have identified distinct clusters of youth who differ significantly on measures of adjustment (Camodeca, Goossens, Schuengel, & Meerum Terwogt, 2003; Pellegrini, 1998; Schwartz, 2000; Toblin, Schwartz, Hopmeyer Gorman, & Abou-ezzeddine, 2005). The majority of this research has been conducted with elementary school youth. However, more recent research has examined adjustment subgroups among middle school students (Sullivan & Farrell, 2008; Haynie et al., 2001; Unnever, 2005). In particular, a study by Sullivan and Farrell (2008) identified four distinct adjustment clusters based on differences in levels of aggression, anxiety, depression, social acceptance, and victimization

within a predominantly African American sample of adolescents. These clusters included aggressive-victims, passive-victims, neglected youth, and well-adjusted youth. Previous research provides support for these clusters (Pellegrini, 1998; Toblin et. al, 2005; Schwartz, Proctor, & Chien, 2001; Unnever, 2005). For example, in a review of existing studies of subtypes of aggressive and victimized youth, Schwartz and colleagues (2001) found that the most commonly identified clusters were bullies, passive-victims, and aggressive-victims. Further, data suggest that membership in these distinct clusters influences social information-processing and responses to peer conflict (Camodeca et al., 2003). Understanding how clusters of youth who differ in adjustment (e.g., aggressive-victims), process and respond to stimuli related to peer victimization experiences has important implications for efforts to promote positive youth development.

Research examining social information-processing could benefit from the development of more innovative methods of assessing these constructs. Social information-processing has typically been measured using hypothetical problem vignettes, structured interviews, and self-report of cognitions (Crick & Ladd, 1990; Zelli, Dodge, Lochman, Laird, & Conduct Problems Prevention Research Group, 1999). The fixed structure, content, and timing of these techniques limits the information they provide about youth's immediate processing patterns. One promising alternative method is the Articulated Thoughts in Simulated Situations (ATSS) paradigm, which is a think-aloud approach to cognitive assessment that allows participants to report their cognitions as they occur. It gives participants wide latitude in the content of their responses and facilitates the measurement of immediate processing as well as situation-specific responding (Davison, Vogel, & Coffman, 1997). This technique has previously been used successfully to examine a variety of thought

patterns, including cognitions associated with marital conflict and anxiety in adults and aggression in adolescents (Bates, Campbell, & Burgess, 1990; DiLiberto, Katz, Beauchamp, & Howells, 2002; Eckhardt & Jamison, 2002).

The proposed study will address several gaps in the literature by using the Articulated Thoughts in Simulated Situations paradigm to examine differences in social information-processing between well-adjusted youth and subgroups of poorly adjusted youth (e.g., passive-victims) when they are exposed to simulated peer victimization situations. No research to date could be found that has examined youth's social information-processing patterns when exposed specifically to simulated peer victimization scenarios. In addition, previous research has primarily focused on examining differences in social information-processing patterns between aggressive and non-aggressive youth (Crick & Dodge, 1994) as opposed to more narrowly defined subgroups. Finally, the use of a think-aloud approach for the assessment of social information-processing patterns among youth reflects a novel approach.

Review of the Literature

This section reviews the literature on the influences of adolescent adjustment and social information-processing patterns on youth's cognitive responses to peer victimization. First, the concept of peer victimization is discussed as one type of problematic situation frequently experienced by youth. A theory of how social information-processing occurs and its influence on adolescent responding is then reviewed. The influence of biases or deficits in social information-processing on adolescent responding is then discussed, and the benefits of examining how clusters of youth who differ in adjustment process and respond to this type of stressor are highlighted. This is followed by a review of current methods for assessing social information-processing patterns, and a discussion of an innovative alternative to traditional social information-processing assessment, the Articulated Thoughts in Simulated Situations paradigm.

Peer Victimization

Adolescence is a critical developmental period marked by significant changes in youth's social relationships. Human development occurs through a series of progressively more complex reciprocal interactions between a developing human and their environment (Bronfenbrenner & Ceci, 1994). Youth's interactions with their peers are an example of one of these complex interactions. As youth mature, the opinions and beliefs of their peers and relationships with these peers become progressively more important, while relationships with their parents become less critical (Baumrind, 1987; Holmbeck, 1994). By early adolescence, youth increasingly comply with their peers' values and standards as a way of identifying with their peers and solidifying their social status within the peer network (Baumrind, 1987). During this developmental stage, instances of verbal harassment, physical violence, and

ostracism by peers become increasingly more common (Vernberg, Ewell, Beery, Freeman, & Abwender, 1995).

Peer victimization is a harmful stressor for adolescents. It has been defined as “actions taken by one or more youths (perpetrator) with the intention of inflicting physical or psychological injury or pain on another youth (victim)” (Vernberg, Jacobs, & Hershberger, 1999). The dimensions of a stressor are known to impact how an individual evaluates the meaning of, copes with, and subsequently adjusts to the stressor (Lazarus & Folkman, 1984). Two important dimensions that influence stress appraisal and coping are the involvement of an interpersonal relationship and the presence of conflict (Crean, 2004; Rudolph & Hammen, 1999). Peer victimization experiences are characterized by conflict and typically occur within the context of interpersonal relationships. Victimization by peers is associated with a host of negative adjustment problems including: depression, social anxiety, (Crick & Grotpeter, 1996; Prinstein, Boegers & Vernberg, 2001), peer rejection (Crick, 1996; Hodges & Perry, 1999), and externalizing behaviors (Hanish & Guerra, 2002). Further, there is evidence that current maladjustment (e.g., disruptive behavior, internalizing behavior problems) is a risk factor for later victimization by one’s peers (Hodges & Perry, 1999; Paul & Cillessen, 2003).

Research has identified a significant relation between peer victimization and a variety of psychosocial adjustment problems (Farrell et al., 1998; Goldbaum, Craig, Pepler, & Connolly, 2003; Hawker & Boulton, 2000; Paul & Cillessen, 2003; Schwartz et al., 1998). Schwartz and colleagues (1998) examined the concurrent and prospective associations between peer victimization and maladjustment among a primarily Caucasian sample of fourth, fifth, and sixth graders. Victims were identified by a peer nomination inventory and adjustment problems were based on teacher report. Analyses displayed significant

correlations between Time 1 victimization and externalizing ($r = .26$) and internalizing problems ($r = .19$), and between Time 1 victimization and Time 2 externalizing ($r = .13$) and internalizing problems ($r = .11$). The relation between victimization and adjustment was also examined within a predominantly Caucasian sample of fourth and fifth graders (Paul & Cillessen, 2003). Results revealed that peer victimization is highly stable over a one-year period with correlations ranging from .62 to .70 for periods during elementary school and between elementary and middle school. Additionally, victimization in sixth grade had a significant impact on self-reported anxiety-withdrawal and disruptive behavior in seventh grade (Paul & Cillessen, 2003).

Further support for the relation between peer victimization and adjustment is provided by several other studies (Goldbaum, Craig, Pepler, & Connolly, 2003; Hanish & Guerra, 2002). Goldbaum et al. (2003) examined victimization trajectories and consequences of sustained victimization over a four-year period within a European-Canadian sample of fifth, sixth, and seventh grade students. Four distinct trajectories of victimization were identified: non-victims, desisters (decreasing victimization over time); late-onset victims (increasing levels of victimization); and stable victims. Boys and girls were equally represented within these groups. Both desisters and late-onset victims reported similarly high levels of anxiety at Time 1. However, desisters' anxiety decreased over time while late-onset victims' anxiety increased over time, suggesting that increased anxiety preceded significant increases in peer victimization for late-onset victims. Similar patterns were present for aggressive behavior. Moreover, stable victims evidenced the highest levels of aggressive and anxious symptomatology at all time points suggesting that sustained victimization contributes to psychosocial problems (Goldbaum et al., 2003). Hanish and Guerra (2002) examined

associations between youth adjustment and peer victimization among an ethnically diverse sample. Victimization was significantly correlated with both externalizing and internalizing behavior problems. Moreover, prior victimization significantly contributed to future elevated levels of internalizing and externalizing behavior problems. In addition, boys reported significantly more instances of victimization at both time points compared to girls, suggesting that peer victimization is more common among boys and may result in more significant maladjustment.

Bullying is a subtype of aggressive behavior that is common among school-aged youth. Bullying is characterized by repeated exposure over time to negative actions by one or more peers (Olweus, 1993). It can take a variety of forms including being the subject of rumors, being kicked or hit, being called hurtful names, and being purposefully excluded from a group (Olweus, 2001). Youth perceive bullying experiences as stressful (Newman, Holden, & Deville, 2005). Being a victim of bullying is associated with a range of negative psychosocial adjustment outcomes, including anxiety (Craig, 1998; Perry, Kusel, & Perry, 1988), depression (Bond et al., 2001; Craig, 1998), aggression (Craig, 1998), and diminished self-worth (Slee & Rigby, 1993). Craig (1998) found that victims of bullying reported significantly more symptoms of anxiety and depression compared to non-victims. Similarly, Bond and colleagues (2001) found that being the victim of bullying at Time one predicted self-reported symptoms of depression and anxiety at Time two.

Peer victimization and bullying reflect related experiences. Bullying can manifest itself as acts of physical, verbal, or relational aggression. These kinds of bullying represent the three different forms of peer victimization that are discussed in this review. However, there is one primary distinction between peer victimization and bullying. By definition,

bullying experiences are marked by a recognizable imbalance of power or strength between the bully and the victim (Olweus, 1993). Although a potentially important distinction, the current study is specifically focused on the more general problem of peer victimization.

Subtypes of peer victimization. Physical, relational, and verbal are the most commonly identified forms of peer victimization. Physical victimization involves physical harm or the threat of physical harm to another through physical means such as being hit or pushed (Crick, Casas & Ku, 1999). Relational victimization involves the harmful manipulation of peer relationships with the intention of damaging an individual's social goals (i.e., establishing close dyadic ties) via purposeful group exclusion (Crick & Bigbee, 1998). This type of victimization can be directly confrontational (i.e., individual threatens to stop being friends with the victim unless they do what the aggressor wants) or indirect (i.e., rumor spreading) (Crick & Grotpeter, 1996). Finally, verbal victimization is characterized by direct verbal harassment via name-calling, teasing, and verbal threats (Farrell et al., 1998; Kochenderfer-Ladd, & Ladd, 2001).

Verbal victimization is a common problem among school-aged youth. A prospective study examined the rates of four different types of victimization experienced by a predominantly Caucasian sample of kindergarteners. The Perceptions of Peer Support Scale assessed how frequently youth were picked on by peers (general), hit (physical), had peers say bad things about them to other kids (relational/ indirect), or had mean things said to them directly (verbal victimization). Participants reported being exposed to significantly more instances of verbal ($M = 0.75$) and general victimization ($M = 0.75$) than either physical ($M = 0.58$) or indirect/relational aggression ($M = 0.56$). There were no gender differences in victimization frequency (Kochenderfer & Ladd, 1996). Similarly, Perry, Kusel and Perry

(1988) examined relative rates of physical and verbal victimization within a sample of third through sixth graders from a middle class community in Florida. Findings revealed that verbal victimization was significantly more common than physical victimization. Moreover, verbal victimization rates remained constant across age groups while physical victimization rates declined, suggesting that verbal victimization continues to be a significant problem for children throughout elementary school. Further, in a study of the relation between attitudes about violence and peer victimization within a Caucasian sample of seventh through ninth graders, verbal victimization was reported more frequently than any other form of victimization, and analyses of gender differences determined that boys reported experiencing significantly more instances of verbal aggression compared to girls (Vernberg et al., 1999).

Verbal victimization has been identified as a frequent and difficult stressor for minority adolescents. Farrell et al. (1998) conducted focus groups with a primarily African American sample of sixth graders from a large urban city in the Southeastern United States to identify different types of problems faced by this population. Verbal victimization experiences were the most frequently reported type of problem, representing 22% of the total problems identified. These data were used to develop a 31-item survey of problem situation frequency and difficulty that was administered to a separate sample of students. Verbal victimization situations represented nine of the thirty-one items, and lifetime prevalence rates for these items ranged from 21% to 36%. In addition, between 26% and 46% of the sample found specific verbal victimization situations difficult to handle (Farrell et al, 1998). In a related study that examined verbal victimization rates within a predominantly African American sample of seventh graders, lifetime prevalence rates ranged from 20% to 70% and monthly prevalence rates ranged from 11% to 34% (Bettencourt, 2006). This was further

supported by a qualitative study of problems faced by urban African American adolescents that found that instances involving social victimization, including relational and verbal victimization, were reported as problematic in approximately two-thirds of all of the interviews (Farrell et al., 2007). These data suggest that verbal victimization is a prevalent and distressing problem for urban minority middle school youth.

There is evidence of a relation between verbal victimization and adjustment problems. Farrell and colleagues (1998) examined the relation between verbal victimization and aggression and anxiety within a predominantly African American sample of urban sixth graders. Verbal victimization was significantly correlated with all three subscales of an anxiety measure: Physiological, ($r = .31$); Worry/ Oversensitivity, ($r = .41$); and Concentration, ($r = .42$). Verbal victimization was also a significant predictor of concurrent anxiety after controlling for sex, environmental stress, and perceived injustice. A significant association was also found between verbal victimization and aggressive behavior. However, after controlling for sex, environmental stress, and perceived injustice, verbal victimization no longer significantly predicted aggression. In a similar study, Mazefsky and Farrell (2005) found a significant correlation between verbal victimization and aggressive behavior ($r = .50$) in an ethnically diverse sample of rural high school students. Further, in a study of the prospective relations between verbal victimization and aggression and anxiety within a predominantly African American sample of urban seventh graders (Bettencourt, 2006), victimization at the beginning of seventh grade significantly predicted elevated levels of anxiety at the end of the seventh grade. In contrast, verbal victimization at Time one did not predict subsequent increases in the frequency of engaging in aggressive behaviors. These

data demonstrate the significant and detrimental impact that verbal victimization can have on youth's adjustment.

Instances of relational victimization are also problematic for children and adolescents. Studies have shown that relational victimization experiences are prevalent among youth, particularly girls (Crick & Bigbee, 1998; Crick & Grotpeter, 1996; Crick et al., 1999). For instance, in a study of the association between relational and overt forms of victimization and their relations with psychosocial maladjustment within a primarily Caucasian sample of third through sixth graders, Crick and Grotpeter (1996) determined that 63% of their sample experienced either relational or overt forms of victimization, but not both, suggesting that relational victimization represents a distinct form of peer victimization. The experience of relational victimization differs depending on the developmental context within which it occurs (Crick et al., 2001). Although relational forms of victimization occur within the context of social relationships in both childhood and adolescence, childhood acts typically involve same-sex peers while acts occurring in adolescence can also involve opposite-sex peers. In addition, indirect behaviors designed to harm the peer relationship become increasingly complex during adolescence (e.g., gossip about sexual partners, completely ignoring one peer while simultaneously emphasizing the relation with another) (Crick et al., 2001), making this developmental period a particularly relevant time to examine relational victimization experiences. Further, data suggest that youth view relationally aggressive acts as aggressive, hostile and mean (Crick et al., 1996), making these experiences problematic for youth to handle.

Relational victimization is associated with significant adjustment difficulties among youth. Several studies have established a cross-sectional relation between relational

victimization and internalizing behavior problems (Crick & Bigbee, 1998; Crick, & Grotpeter, 1996; Crick et al, 1999; Storch et al., 2003). For example, in a predominantly Hispanic sample of 10 to 13 year old youth, Storch and colleagues (2003) established a relation between relational victimization and depression, social avoidance, loneliness, and fear of negative evaluation. Relational victimization and externalizing behavior problems are also associated cross-sectionally. Sullivan, Farrell, and Kliewer (2006) assessed the relations between relational and physical victimization, and drug use, delinquent behavior, and aggression within a predominantly African American sample of adolescents. After controlling for the frequency of physical victimization, relational victimization accounted for unique variance across all three forms of externalizing behavior problems. In addition, a prospective relation between relational victimization and internalizing behavior problems has been established (Storch & Masia-Warner, 2004; Storch, Masia-Warner, Crisp, & Klein, 2005; Vuijk et al., 2007). For instance, in a study of the prospective relation of overt and relational forms of victimization with social anxiety and social phobia in a primarily Caucasian sample, relational victimization, but not overt victimization, significantly predicted symptoms of social phobia one year later (Storch et al., 2005). These data suggest that relational victimization can have a significant and negative impact on adolescents' psychosocial adjustment.

Being a victim of physical aggression by one's peers is also a stressful experience for youth. Physical victimization is a relatively common problem among youth and adolescents, particularly boys (Crick & Bigbee, 1998; Crick et al., 1999; Crick & Grotpeter, 1996; Kochenderfer & Ladd, 1996). For instance, in a primarily Caucasian sample of kindergarteners, 43% of the sample reported experiencing physical victimization by their

peers between sometimes and a lot of times in their lifetime (Kochenderfer & Ladd, 1996). Similarly, in a predominantly Caucasian sample of third through sixth grade students, 36 of the 115 youth classified as victims reported being physically victimized by their peers and an additional 42 experienced both physical and relational acts of victimization (Crick & Grotpeter, 1996). Further, in a predominantly African American sample of eighth graders, 49% of the sample reported being the victim of at least one act of physical aggression within the previous 30 day period (Sullivan et al., 2006). Physical victimization experiences are thought to be stressful because they communicate to the victim that they are weak and vulnerable, and these youth may come to believe that they cannot protect themselves from physical aggression (Kochenderfer & Ladd, 2001). Taken together, these data suggest that physical victimization experiences are problematic for youth.

There is empirical support for a relation between physical victimization by peers and psychosocial maladjustment among youth. Studies have shown evidence of a cross-sectional relation between this type of physical victimization and both internalizing and externalizing behavior problems (Crick & Bigbee, 1998; Crick & Grotpeter, 1996; Hawker & Boulton, 2000; Sullivan et al., 2006). For example, in a predominantly Caucasian sample of fourth and fifth graders, physical victimization was positively associated with loneliness, social avoidance, and emotional distress among boys, and with loneliness, social anxiety, and emotional distress for girls. Similarly, in a predominantly Hispanic sample of 10 to 13 year olds, physical victimization was related to symptoms of depression, fear of negative evaluation, social avoidance, and loneliness among boys and girls (Storch et al., 2003). Sullivan and colleagues (2006) determined that physical victimization by peers is also significantly correlated with delinquency, alcohol use, physical aggression, and relational

aggression. In addition, physical victimization was more strongly related to physical and relational aggression, delinquent behaviors and alcohol use among boys compared to girls. Further, a prospective relation has been found between physical victimization and internalizing behavior problems (Vuijk et al., 2007). More specifically, in a Caucasian sample of elementary school youth from the Netherlands, physical victimization by one's peers at age 10 was negatively associated with symptoms of generalized anxiety and panic/agoraphobia at age 13 for boys. One other study (Storch et al., 2005) examined the prospective relation between physical victimization by peers and social anxiety and social phobia within a primarily Caucasian sample of high school students. However, physical victimization was not found to significantly predict either social phobia or social anxiety (Storch et al., 2005).

Peer victimization is a prevalent problem during adolescence. Verbal, relational and physical victimization represent three distinct forms of peer victimization that are common and problematic for youth. There is evidence that all three forms of victimization occur during adolescence. In addition, data suggest that each type of victimization is associated with psychosocial adjustment problems within this population. Furthermore these data allude to the fact that some adolescents who experience peer victimization are unable to cope effectively and respond in less than desirable ways (e.g., with aggression), whereas other adolescents are able to effectively cope with this distressing problem and avoid adjustment problems.

Social Information-Processing Theory

The manner in which youth respond to stressful social situations such as peer victimization influences their adjustment. The social information-processing model

developed by Crick and Dodge (1994) provides an excellent framework from which to explore how youth select and implement responses to social situations, including instances of peer victimization. This model proposed that youth come to a social situation with a database of memories from past experiences and their own biological capabilities. The youth then receives an array of cues from the situation, processes these cues, selects a response, and then enacts that response. Their response is a function of a series of six mental steps. These steps include: 1) the encoding of internal and external cues, 2) interpretation and mental representation of those cues, 3) selection or modification of a goal, 4) generation of potential responses based on previous experience or construction of novel responses, 5) selection of a response and, 6) the enactment of the response.

Each step of the social information-processing model is marked by a multitude of interrelated processes. During the first two steps, youth selectively attend to external and internal situational cues then encode and interpret the selected cues. The cue interpretation process includes attributions of cause and intent, evaluation of the self and others, and evaluation of goal attainment potential based on past performance in similar situations. This process is significantly influenced by the individual's internal database (i.e., social schemas, latent knowledge structures). In the third step, the individual's goals (e.g., staying out of trouble) help orient the individual toward their desired outcome. Youth bring particular goal tendencies to the situation, but also revise those goals based on cues from the situation. Once goals have been established, the individual accesses preexisting response strategies and alternatives or constructs new responses. These strategies may be activated by information in existing schemas, retrieved from memory, or constructed according to immediate social cues. Within the fifth step, a variety of processes occur including: response evaluation, where

youth assess the quality and acceptability of a given response based on structured knowledge and past experiences, evaluation of the expected outcome, and a self-efficacy evaluation, where youth evaluate their ability to enact the response. Once the response is enacted, the internal and external feedback from the situation are processed and encoded, and the process begins again (Crick & Dodge, 1994). This model described a simultaneous and circular information process, including multiple feedback loops and the constant influence of the database of memories for past experiences and schemas.

Emotional processes play a critical role in social information processing. Lemerise and Arsenio (2000) developed a revised model of social information-processing that integrates cognitive and emotional processes, and delineates the role of emotion in each of the six processing steps. During step one and two, the encoding and interpretation of cues are influenced by awareness of the peer's affective cues (e.g., anger, sadness), one's own capacity for emotion recognition, mood and level of arousal at the time of the social encounter, emotional intensity and ability to regulate emotions, and the affective nature of the relationship with this peer. In step three, affective cues from the other peer (e.g., negative affect), and emotional ties with that peer (e.g., friendship) can influence the type of goal selected (e.g., an affiliative goal), while emotional intensity and regulation capacity impact the pursuit of the selected social goal (e.g., youth overwhelmed by emotions select an avoidant social goal) (Lemerise & Arsenio, 2000). During steps four and five, Crick and Dodge (1994) suggested that response access may be influenced by the youth's emotional state at the time of access and the response selected may contribute to the modification of that state. Lemerise and Arsenio (2000) also proposed that emotional intensity and regulation capacity influence response access and evaluation. For example, youth who experience

strong emotions may become too overwhelmed to generate a range of responses or to evaluate each response effectively. In addition, expectations of the emotional reaction elicited by a certain response also impact response evaluation processes. Further, emotional ties or the lack of these ties may serve as motivation for youth to engage in the labor-intensive response generation and evaluation process. Finally, response enactment (Step six) is influenced by the emotional intensity and regulation capacity of the child in the moment (e.g., anger/dysregulation impairs awareness of emotion display rules). Additionally, awareness of other's affective cues during the situation provides ongoing feedback to the youth about how the scenario is progressing, and about the ultimate success or failure of their response. Furthermore, emotional cues are one representation of the situation that becomes integrated into the database of social knowledge, and will be accessed the next time the situation occurs.

Latent knowledge structures are central to the assimilation of social information and to the processing of future social cues (Crick & Dodge, 1994). As a result, it is important to fully understand the nature of the structures that comprise this database of memories for past experiences, and how information becomes assimilated into this database. Several types of knowledge structures are hypothesized to lie within this knowledge database, including schemas (Shank & Abelson, 1977), working models of relationships (Bowlby, 1969), and heuristics (Einhorn & Hogarth, 1981). For the purposes of the current study, the focus will be on schemas and the influence these structures have on other aspects of adolescent's social information-processing.

Schemas have been conceptualized in a variety of ways. At a basic level, schemas have been defined as “cognitive structures that represent organized knowledge about a given

concept or type of stimulus” (Fiske & Taylor, 1984, p. 140). Social cognition theory posits that there are four core types of schemas: person schemas, self-schemas, role schemas, and event schemas. Person schemas focus on the perceiver’s knowledge and understanding of the goals and traits that influence other people’s behavior (Fiske & Taylor, 1984). This includes abstract knowledge about what a certain type of person (e.g., extrovert) is like, or more specific information about what your friend is like. Self-schemas reflect a second kind of schema that contains information about the individual’s own behavior, personality, and appearance (Fiske & Taylor, 1984; Kunda, 1999). Role schemas include information about broad social categories such as race, age, sex, and occupation (Fiske & Taylor, 1984). For example, knowledge about the role of a student, how the student interacts with teachers, what students wear, and how students behave in a classroom setting all fall into the role schema for student. Finally, event schemas or cognitive scripts include an understanding of what happens in certain situations such as going to dinner, celebrating a birthday, or fighting a peer. The individual’s prior knowledge of the typical sequence of events in a standard social situation helps the individual make sense of ambiguous information in the new situation, recall relevant information about this kind of situation, and make inferences about missing situational information (Abelson, 1981; Fiske & Taylor, 1984).

At a more abstract level, schemas have also been conceptualized as beliefs or assumptions about the self, others, and the world (Bower & Sivers, 1998; Janoff-Bulman, 1992). With this conception in mind, the accepted theory suggests that schemas are stable cognitive patterns of selectively attending to stimuli, processing stimuli, and arriving at a conceptualization of the situation as a whole (Beck et al., 1979). Within this working model, schemas reflect both the broad cognitive network of related elements and distinct beliefs or

assumptions that summarize the cognitive network (Cason, Resick, & Weaver, 2002). Thus, the focus of this model is on the belief systems, as opposed to specific pathways within the schematic network. In fact, the word schema has often been used interchangeably with the term beliefs (Cason et al., 2002). Within this model, beliefs about the self, others, and the world guide the processing and interpretation of future events.

Early life experiences shape schema development, and research suggests that once developed, many schemas are slow to change (Fiske & Taylor, 1984; Waldinger et al., 2002). The more exposure one has to schema-relevant information, the more abstract the schema becomes. Changes in schema abstraction typically take place between the initial and second experience with similar events (Fiske & Taylor, 1984). Not only do schemas become more abstract as they develop, but with increasing experiences schemas also change in complexity and level of organization. In fact, mature schemas tend to be more complex, less clear-cut, more organized, and more compact compared to newly formed schemas (Fiske & Taylor, 1984).

Much like the process of schema development, schema change is also influenced by exposure to schema-relevant or schema-irrelevant information. Research shows that the general tendency is to make the social data fit the existing schema as opposed to changing the schema to fit the data. However, when there is only partial fit between the data and the schema, changes in the schema itself are more probable (Fiske & Taylor, 1984). Several mechanisms of schema change have been proposed, including the bookkeeping model, the conversion model, and the sub-typing model. The bookkeeping model suggests that change occurs gradually with each discrepant experience. On the other hand, the conversion model suggests that one incongruent encounter can change the schema completely. Finally, the sub-

typing model suggests that when exposed to inconsistent information, the perceiver develops subcategories within the larger schema to integrate the inconsistent information (Fiske & Taylor, 1984).

Experiencing a traumatic event is one way in which schema change can occur. As schemas provide a means for interpreting and reacting to individuals and the world, a traumatic event can represent a direct violation of one's core beliefs. The inconsistency of the traumatic event forces the individual to either ignore the incongruent information in order to maintain one's belief system, or alter one's core beliefs to account for new information (Bowers & Sivers, 1998). Both tactics for making sense of the event can lead to problems as core beliefs are difficult to modify and information that is incongruent with pre-existing beliefs or schemas is easily distorted or difficult to remember. Furthermore, researchers suggest that the resistance of core beliefs to change is adaptive, as these belief systems are central to psychological health and functioning (Bowers & Sivers, 1998).

Types of Adolescent Schemas. Research on adolescent schemas and internalized beliefs has identified several salient kinds of beliefs that influence adolescent behavior. For instance, Huesmann and Guerra (1997) identified a set of normative beliefs, or individualistic cognitive standards about the acceptability of behavior acquired through observation and experience, that regulate behavior by defining the range of allowable and prohibited social behaviors. These beliefs can be general (e.g., It is okay to hit other people), or situation specific (e.g., it is okay to hit others if they hit you first), and have an influence on social information-processing patterns. In particular, Huesmann and Guerra (1997) examined how normative beliefs about aggression influenced youth's aggressive behavior within a predominantly African American sample of elementary school youth. They found that

youth's beliefs about aggression were significantly correlated with their enactment of aggressive behavior, and that beliefs approving of aggression increased with age as did aggressive behavior. Similarly, Werner and Nixon (2005) examined the relation between youth's normative beliefs about relational and physical forms of aggression and engagement in these forms of aggression within a predominantly Caucasian sample of adolescents. Beliefs about physical aggression contributed unique information about youth's level of physical aggression, whereas beliefs about relational aggression were uniquely associated with adolescents' level of relational aggression.

Beliefs or perceptions about the self are another salient schema for youth. Research shows that as youth move toward adolescence, significant changes occur in their understanding of themselves (Troop-Gordon & Ladd, 2005). In childhood, self-views are generally more realistic and more self-critical in nature. However, with the onset of preadolescence youth come to evaluate themselves more positively. In addition, youth gain a better understanding of their place within the social network and come to think of themselves in terms of social status and social roles during this developmental period (Troop-Gordon & Ladd, 2005). Self-perceptions have been linked to youth's level of psychosocial adjustment (Salmivalli & Isaacs, 2005; Troop-Gordon & Ladd, 2005). In addition, studies have shown that beliefs about the self influence youths' interactions with their peers. For instance, in a study of the relation between three types of peer stressors (i.e., friendlessness, victimization, and peer rejection) and youth's self perceptions within a Finnish sample of 11 to 13 year-olds, researchers found that holding negative views or beliefs about the self was a risk factor for experiencing peer victimization, rejection, and a lack of reciprocated friendships (Salmivalli & Isaacs, 2005). Similarly, Troop-Gordon and Ladd (2005) determined that

youth's self-perceptions served as a mediator between the experience of victimization and the development of internalizing behavior problems. Taken together, these data suggest that beliefs about the self have a significant influence on how youth interact with their peers, and ultimately influence adjustment.

Internalized beliefs about peers reflect another type of schema that is important for youth. Beliefs about peers are believed to develop through repeated social interactions with the peer group. These peer beliefs take the form of specific judgments about a category of people who share a particular trait (e.g., boys) or ascribing certain characteristics to naturally occurring groups (e.g., classmates) (Troop-Gordon & Ladd, 2005). Research suggests that beliefs about peers influence youths' social information-processing patterns, and ultimately impact the ways in which youth respond to their peers (Mackinnon-Lewis, Rabiner, & Starnes, 1999). For example, Mackinnon-Lewis and colleagues (1999) examined the relations between beliefs about familiar and unfamiliar peers and social acceptance and adjustment among a primarily Caucasian sample of seven to nine year-old boys. Results showed that beliefs about familiar peers significantly predicted the youths' social acceptance, even after controlling for previous ratings of social acceptance. In addition, beliefs about unfamiliar peers significantly predicted youth aggression toward peers, after controlling for previous aggression. Furthermore, current level of social acceptance predicted changes in beliefs about familiar peers whereas level of aggression toward peers also predicted changes in beliefs about unfamiliar peers six to nine months later, suggesting that beliefs about peers are shaped by subsequent social interactions with these peers. Similarly, Salmivalli and Isaacs (2005) found that peer victimization and rejection contributed to increasingly negative perceptions or beliefs about peers as hostile, untrustworthy, and unsupportive over time.

Relational schemas, marked by the combination of self and other schemas as well as an interpersonal script for the interaction, have also been identified in youth. Self-schemas are defined by representations of oneself in interaction with others, whereas “other” schemas are marked by representations of the attributes of the other person in the interaction. Interpersonal scripts are defined as cognitive structures that serve as an internalized representation of a sequence of actions that characterize a particular relational pattern. These scripts not only reflect the sequence of behaviors, but also include expectations about the feelings, thoughts, and reactions of the self and the other person in the interaction (Baldwin, 1992). It is thought that relational schemas serve as cognitive maps to assist individuals in navigating the social world, and that these schemas ultimately develop via repeatedly experiencing similar interpersonal interactions (Baldwin, 1992).

There is empirical evidence to support the importance of relational schemas in adolescence. In a study of the stability and change in relational schemas between adolescence and young adulthood among a predominantly Caucasian sample of youth, Waldinger and colleagues (2002) determined that the most frequently expressed perceptions of self and others during adolescence included seeing others as opposing, rejecting and bad, and seeing the self as independent, disappointed, and unreceptive. Some of these perceptions remained stable into adulthood, particularly the view that others are opposing and rejecting, but views of the self changed drastically to more positive views (i.e., helpful, respected). Further, in a study of the relations among self- and peer perceptions, social goals, and social behavior in a Finnish sample of 11 to 13 year olds, Salmivalli, Ojanen, Haanpaa, and Peets (2005) identified four distinct groups of children who differed in their relational schemas: the secure group included those youth who maintained both positive self and positive peer views, the

troubled group was marked by both negative self and negative peer views, the self-deprecating group was defined by negative views of the self and positive views of peers, and the dismissing group was marked by positive views of the self and negative views of others. The secure group represented the largest proportion of the sample at 35% while the self-deprecating group represented the smallest proportion at 15%. In addition, they found that group membership significantly influenced reactive aggression and prosocial behavior, with youth in the secure group scoring highest on prosocial behavior whereas youth in the dismissing group scored highest on reactive aggression.

Biased Social Information-Processing Patterns. The use of latent knowledge structures (schemas) can make social information-processing more efficient, but their use can also lead to errors in interpretation and judgment (Ross et al., 1977). Research shows that adolescents frequently rely entirely on their prior experiences and schemas to make decisions in social situations. Despite the development of analytic and abstract cognitive abilities by adolescence, the use of heuristic decision-making, using rules of thumb to make rapid decisions, actually increases during this period (Klaczynski, 2001). The steps youth take to process social information are highly correlated with their adjustment (Huesmann, 1988). Maladjustment can contribute to biases in youth's social information-processing patterns. Biased processing of social information can occur when youth rely on existing schemas about past social interactions instead of using cues from the immediate social context (Crick & Dodge, 1994).

For some youth, biased processing may be partially responsible for their enactment of problematic social responses and further maladjustment. Dodge and Tomlin (1987) measured the degree to which aggressive and non-aggressive youth relied on cues from the immediate

social context versus schemas for past experiences to determine the intent of a peer in a hypothetical provocation scenario. Data were collected by presenting hypothetical situations to the youth, asking them to infer the provocateur's intent, and then cite their reasons for drawing the particular conclusion. Aggressive youth were more likely to base their intent interpretations on schemas compared to their non-aggressive peers. Similarly, in a study of social problem-solving abilities among aggressive and non-aggressive preschool boys, results indicated that aggressive boys attended to aggression-related cues significantly more than non-aggressive cues from the situation (Gouze, 1987). Further, one study revealed that some youths' decisions about aggression were solely based on instrumental cues, excluding relational cues (i.e., the impact of their response on their relationships), whereas others incorporated both types of cues into their decision-making processes (Crick & Dodge, 1994) increasing their likelihood of enacting an appropriate response.

Latent knowledge structures are believed to impact behavior through their influence on a variety of social information-processing patterns including situational attributions. Attributions are processes by which youth make sense of peers' behavior. Causal attributions allow youth to make judgments about the motivations for a social event (Crick & Dodge, 1994). Compared with their maladjusted peers, socially well-adjusted youth, as measured by peer status, are more likely to make internal causal attributions for positive social outcomes and external attributions for negative outcomes. This suggests that maladjusted youth more frequently blame themselves when bad situations occur (Crick & Dodge, 1994). Within the realm of causal attributions, two salient types of attributions that have been a particular focus of peer victimization research are characterological self-blame and behavioral self-blame attributions. Characterological self-blame is associated with self-esteem, involves attributions

associated with something non-modifiable (character), and is marked by a belief that one deserves the past negative outcomes they have experienced. On the other hand, behavioral self-blame is controllable, applies to a modifiable source (behavior), and can lead to beliefs in the avoidability of future negative outcomes (Graham & Juvonen, 1998).

Several studies have examined the association of characterological and behavioral self-blame forms of causal attributions with peer victimization and youth adjustment (e.g., Graham, Bellmore & Mize, 2006; Graham & Juvonen, 1998). For example, Graham and Juvonen (1998) examined the associations between characterological versus behavioral self-blame attributions for peer victimization and maladjustment within an ethnically diverse sample of middle school students. Victims endorsed significantly more characterological self-blame attributions and more symptoms of psychological maladjustment compared to non-victims. Conversely, behavioral self-blame was not associated with maladjustment, and was not endorsed significantly more often among victims compared to non-victims. These data suggest that characterological self-blame attributions are more detrimental to adjustment compared to behavioral self-blame due to their reflection on one's self-worth, their stability which supports the notion that future victimization will occur, and their uncontrollability which suggests to the victim that there is no different way to respond in the future that will prevent their victimization. Similarly, Graham, Bellmore and Mize (2006) examined differences in characterological and behavioral self-blame attributions within four distinct subgroups: aggressors, aggressive-victims, victims, and socially adjusted middle school youth. Victims were significantly more likely than aggressors or socially adjusted youth to report characterological self-blame attributions within the hypothetical peer victimization scenarios. On the other hand, aggressors were the least likely of any group to report either

characterological or behavioral self-blame attributions. Further, aggressive-victims resembled victims in terms of their characterological attributions, however, they were no different from aggressors and socially adjusted youth in terms of behavioral self-blame. Taken together, these studies highlight the detrimental impact of negative, self-focused causal attributions on adjustment in middle school youth.

Intent attributions, another type of situational attribution, allow youth to make decisions about their peers' intentions in a situation. Hostile attributions of intent have become a particular focus of intent attribution research within child and adolescent samples. Hostile attribution of intent, also termed hostile attribution bias, is defined as the attribution of hostile intentions to a peer within a social context in which the peer's intentions are ambiguous, partly ambiguous, or partly benign (Orobio de Castro, Veerman, Koops, Bosch, & Monshouwer, 2002). Hostile attributions of intent are likely causes of aggressive behavior and instigation of problematic social interactions, whereas they serve as prohibitive influences in the initiation of non-violent social interactions (see Orobio de Castro et al., 2002 for a review). For instance, in a study comparing social information-processing patterns of aggressive and shy-withdrawn youth from a primarily Caucasian sample of fifth grade students, aggressive youth were more likely to attribute external (hostile) blame compared to shy/withdrawn and control youth (Burgess, Wojslawowicz, Rubin, Rose-Krasnor, & Booth-LaForce, 2006). Similarly, in a study of the intent attributions of relationally and physically aggressive youth in response to relational and instrumental peer provocation, Crick, Grotpeter and Bigbee (2002) found that both physically and relationally aggressive youth exhibited hostile intent attributions, and that these hostile attributions were specific to instrumental provocation scenarios for physically aggressive youth, and relationally

provocative scenarios for relationally aggressive youth. Further, a study of 242 Dutch children found that bully/victims (youth scoring high on measures of victimization and bullying) attributed more blame to perpetrators and expressed a greater desire to retaliate in an ambiguous provocation than well-adjusted youth (Camodeca et al., 2003). These data suggest that intent attributions significantly influence youths' interpretations of situational cues, and highlight the role that adjustment plays in the presence of hostile intent attributions.

The individual's internal database also influences the types of responses accessed from long-term memory and youths' evaluation of response quality. Youths' evaluation of the quality of a response is likely based on their internalized values or schemas (Crick & Dodge, 1994), and ultimately influences their intent to respond in a particular way, and their subsequent behavioral enactment of that response. For instance, one study found that rejected and aggressive youth evaluate aggressive responses more positively and prosocial responses more negatively than their well-adjusted peers (Crick & Ladd, 1990). Youths' internalized beliefs and schemas also influence the type of response that is selected for enactment. In a study of an ethnically diverse sample of 2,003 middle school students, adolescents' normative retaliatory aggressive beliefs were significantly associated with hostile response selection, suggesting that beliefs supporting aggression influence the selection of an aggressive response (Bellmore et al., 2005). Related to this, youths' expectations for a favorable or unfavorable response also influence response enactment, and there is strong evidence for the relation between outcome expectancy content and youth adjustment. For example, one study of 66 third grade boys revealed that chronic victims of aggression tend to hold negative expectations for the outcomes of aggressive and assertive behavior, and thus engage in submissive behavior in response to conflict (Schwartz et al., 1998). Taken

together, these data suggest that different clusters of maladjusted youth display distinct, biased social information-processing patterns that contribute to problematic response identification, evaluation, and enactment, and to further adjustment problems.

In recent qualitative work, Farrell, Erwin, and colleagues (2008) and Farrell, Mays et al. (in press) examined factors that serve as barriers and supports to adolescents' enactment of aggressive and effective nonviolent responses to peer conflict, including specific peer victimization situations. Participants were 106 primarily African American sixth and seventh graders from an urban public school system in the Southeastern part of the United States. Participants were read descriptions of problem situation-response pairs and asked a series of questions about what would help or prevent them from making a particular nonviolent or aggressive response. A team of researchers coded transcripts starting with an a priori list of themes derived from the literature and earlier qualitative work (Erwin, Camou, Sullivan, & Farrell, 2007). Coding identified 42 themes representing seven domains of barriers and supports to nonviolent and aggressive responding. Notably, these themes included a number of internal factors representing beliefs, values, and social information-processing patterns. More specifically, the following internal and relevant peer-related themes were identified: 1) self-efficacy for fighting and for non-violent behavior, 2) prosocial values and goals, including values about relationships, values about trust, and future-oriented values, 3) beliefs about the world, including values about fairness, and beliefs about the benevolence of others, 4) beliefs supporting fighting, including beliefs that it is ok to hit someone in response to physical or nonphysical aggression, and values about the acceptability of revenge, 5) beliefs against fighting, including beliefs that fighting won't solve problems etc., 6) values about image and reputation, and 7) attributions of the other person, which included youths'

attributions of the intentions behind others actions as well as the attributions made by other youth to the participant (Farrell, Erwin et al., 2008; Farrell, Mays, et al., in press). The aforementioned themes together with existing empirical research on schemas and social information-processing patterns served as the basis for the themes that were coded in the present study.

Use of Adjustment Clusters in Social Information-Processing Research

Behavioral classification techniques have been used to understand distinctions in the development and maintenance of psychopathology, particularly aggressive behavior, among youth (Hanish & Guerra, 2004). Schwartz and colleagues (2001) conducted a literature search to determine the most commonly identified subtypes of aggressive and victimized youth and the relative proportions of such subtypes. This review of the empirical literature identified bullies, passive-victims, and aggressive-victims as the most common subtypes, with group size ranging from 1.5% to 24% for bullies, 7% to 25% for passive-victims, and 2% to 29% for aggressive-victims. Similar subgroups (bullies, victims, bully/victims, not involved) were used to examine differences in specific social information-processing patterns among Dutch youth (mean age = eight years) (Camodeca et. al, 2003). Most of this research has examined adjustment subgroups within elementary school youth. However, researchers have recently begun to explore adjustment subgroups among adolescents (e.g., Haynie et al., 2001; Unnever, 2005). For instance, in a study of 4,236 middle school students, researchers determined that the use of a variety of psychosocial and behavioral predictors (i.e., problem behaviors, peer influences) identified four distinct subgroups: bullies, victims, bully/victims, and never bullied or victimized youth (Haynie et al., 2001). Similarly, a recent unpublished study conducted within a sample of 175 predominantly African American youth from two

middle schools in a Southeastern city identified four distinct adjustment clusters based on differences in measures of victimization, aggression, anxiety, depression, and social acceptance. The clusters that emerged from this study included: well-adjusted youth, aggressive-victims, passive-victims, and neglected youth. Aggressive-victims reported elevated levels of aggression, relational and overt victimization, depression, anxiety, and good acceptance by peers, whereas passive-victims reported low levels of aggression, and elevated levels of victimization, depression, anxiety, and poor social acceptance by peers. In addition, neglected youth reported low levels of aggression, victimization, anxiety and depression, and poor peer acceptance. Finally, well-adjusted youth differed from the neglected group in that their peer acceptance was much higher than all three other groups (Sullivan & Farrell, 2007).

Other studies provide support for the clusters identified by Sullivan and Farrell (2007) (Pellegrini, 1998; Toblin et al., 2005; Unnever, 2005). Specifically, aggressive-victims have been defined as youth who provoke their peers and respond to threats or attacks with reactive aggression, whereas passive-victims do not provoke others and instead respond with submission to their aggressor's demands (Hanish & Guerra, 2004). Neglected youth are those who have low acceptance among their peers, but are not actively disliked. In general, these youth tend to be less known by their peers than their well-adjusted counterparts, and exhibit less aggression (Newcomb, Bukowski, & Pattee, 1993). Finally, well-adjusted youth are typically well-liked and neither victimized nor aggressive (Hanish & Guerra, 2004). There is some evidence to suggest that membership in these distinct groups (e.g., aggressive-victims) impacts social information-processing patterns and responses to peer conflict (Camodeca et al., 2003; Lemerise et al., 2006). Less is known about social information-processing patterns

and coping among neglected youth compared to their well-adjusted, aggressive, and victimized counterparts. However, this group differs from the well-adjusted group and warrants examination. Further research is needed to understand how these distinct subgroups of urban adolescents differ in their social information-processing patterns and responses during peer victimization situations, a prevalent and difficult problem for this population.

Few studies have examined whether distinct subgroups of youth who differ in their level of adjustment also differ in the way they process social information and respond to peer victimization situations. Understanding differences in social information-processing patterns of clusters of youth is necessary for integrating studies of adolescent social information-processing and response patterns into a prevention framework. In fact, understanding how well-adjusted youth process social information and respond to situations is of specific relevance to prevention efforts. The majority of past research in the violence prevention area has emphasized deficits or risk factors for maladjustment whereas less attention has been devoted to identifying protective factors that support resilient youth (DuRant, Pendergast, & Cadenhead, 1994). Over the past 30 years, the movement to establish and evaluate programs designed to promote positive youth development, instead of just preventing youth problem behavior, has gained momentum (Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2002). An emphasis on positive youth development requires understanding the social information-processing and response patterns of well-adjusted youth (i.e., those that lead to nonviolent responses). The use of clusters instead of continuous adjustment measures will facilitate ease of identification of both well-adjusted youth and at-risk groups of youth who would benefit from intervention. This knowledge will also inform the development of interventions for at-risk youth that will increase the likelihood that students will enact effective nonviolent

responses to problems (e.g., verbal victimization), and decrease the likelihood that they will enact aggressive or ineffective responses.

Crick and Dodge's (1994) social information-processing model describes how youth select and implement responses to social stimuli. This model proposes that response enactment is a function of a series of mental steps. Emotional processes influence each of these mental steps. Latent knowledge structures or schemas play an integral role in youths' social information-processing patterns. Research on these structures within youth populations have identified several distinct types of schemas including self-schemas, other-schemas, relational schemas, role schemas, beliefs about aggression, and cognitive scripts. Biased social information-processing occurs when youth rely almost exclusively on these schemas to process information more efficiently, to the exclusion of important cues from the immediate social context. Research has established a link between maladjustment, biased processing, and problematic response selection. There is limited empirical support for the notion that different subgroups of youth (i.e. aggressive-victims) display distinct social information-processing and response patterns. However, the majority of this research has been conducted with elementary school populations. Understanding how subgroups of urban middle school youth process and respond to a frequent and problematic stressor, peer victimization, will help inform preventive intervention efforts.

Measurement of Social Information-Processing Patterns

Data on youth social information-processing patterns and the internal factors that influence these processes are essential to understanding youth adjustment. These processes have typically been measured using structured interviews and self-report measures about youth's cognitions in response to hypothetical vignettes (Crick & Ladd, 1990; Zelli, Dodge,

Lochman, Laird, & Conduct Problems Prevention Research Group, 1999). Although these measures provide important information, their content, timing, and structure limits the information on social information-processing patterns they provide. The hypothetical vignettes are typically selected based on their presumed or empirically derived relevance to youths' social adaptation (Crick & Dodge, 1994). Although there is evidence that the chosen situations are plausible, it is unclear whether they represent real life problems for specific subgroups of youth that youth consider difficult to handle. Further, these measures employ a series of specific questions related to each vignette. The structure and timing of these questions limits the array of responses youth can select and does not permit youth to share spontaneous cognitions generated by their exposure to the situation. Moreover, self-report questionnaires and retrospective interviews are constructed according to themes deemed relevant by researchers, rather than by youth. As a result, these measures may fail to obtain information on cognitions that do not fit within the previously identified themes and social information-processing patterns. Limitations of such methods highlight the need for a different approach to cognitive assessment. In other words, existing measures impose a structure that may not provide all youth an opportunity to articulate the particular factors that characterize their thought processes.

The Articulated Thoughts in Simulated Situations (ATSS) paradigm is a think-aloud approach to cognitive assessment that allows participants to report their cognitions as they occur. In the ATSS procedure, the participant listens to an audiotaped scenario divided into five to eight brief segments (10-15 s). After each segment, the individual is prompted to verbalize what is on their mind during a 30 second response segment (Rayburn & Davison, 2002). The presentation of audiotaped simulations allows participants to develop their own

images of the situation, making the situation more meaningful and personally relevant. This type of approach has several major advantages over paper-and-pencil and structured interview formats. First, the unstructured format of ATSS gives participants greater latitude in the content of their responses compared to self-report questionnaires where response choices are established in advance. Second, by asking participants to think aloud immediately after brief audio segments of a situation, immediate cognitive processing can be studied. ATSS also gives the experimenter control over the types of situations presented while facilitating the gathering of data on participant's situation-specific responding (Davison, Vogel, & Coffman, 1997).

Relational violence among adult males has been successfully examined using the ATSS paradigm. One group of researchers in particular has repeatedly used the ATSS paradigm to examine the articulated thoughts of violent and nonviolent men in dating and marital contexts (e.g., Eckhardt, Barbour, & Davison, 1998; Eckhardt & Jamison, 2002; Eckhardt, Jamison, & Watts, 2002). For instance, Eckhardt et al. (1998) examined the cognitive correlates of anger arousal within a predominantly Caucasian sample of maritally violent and maritally nonviolent men. After interviews were completed and transcribed, two raters independently coded transcripts for four a priori determined codes: irrational beliefs, cognitive biases, hostile attribution biases, and anger-control strategies. Cognitive biases and irrational belief comments were each coded according to a five-point scale that measured the degree to which each code was present in a segment with zero indicating the absence of the code and four indicating that it was *extremely present*. On the other hand hostile attribution biases and anger-control statements were coded via frequency counts of the verbalizations across each scenario. Through the induction of an angry aroused state using the ATSS

paradigm, the researchers found that irrational beliefs and cognitive biases were articulated more frequently by maritally violent men compared to both groups of nonviolent men (distressed-nonviolent and satisfied-nonviolent). In addition, maritally violent men articulated more hostile attribution biases and fewer anger-control statements compared to their nonviolent counterparts. Similarly, in the examination of the articulated thoughts of dating violent and non-violent men, raters coded transcripts for these same four a priori codes, and determined that dating violent men articulated significantly more cognitive biases and irrational thoughts, and less anger-control statements compared to dating non-violent men (Eckhardt & Jamison, 2002).

Cognitive factors associated with smoking cessation, social anxiety, and depression among adults have also been successfully assessed with the ATSS paradigm (Bates, Campbell, & Burgess, 1990; Haaga, 1989; White, Davison, Haaga, & White, 1992). For example, Haaga (1989) used the ATSS paradigm to examine cognitions in high-risk situations shortly after smoking cessation within a predominantly Caucasian sample of ex-smokers (mean age = 44.6 years). A team of research assistants blind to condition coded transcripts for the following: Behavioral coping, cognitive coping, attributions, guilt, self-efficacy for abstinence, self-efficacy for recovery, and response-outcome expectations for use. Behavioral and cognitive coping were coded according to their presence or absence in each segment, whereas attributions and guilt were rated on a 6-point scale, and then dimension scores were averaged across all statements in the category and across judges. Self-efficacy for abstinence and for recovery were each rated on a scale of 0-100 according to the judges' perception of the subjects' apparent confidence in ability to avoid relapse and ability to recover, and scores were averaged across judges. Finally, response-outcome expectancies

were rated from -100 to +100 during any segment where the participant described the anticipated consequences of a relapse. Participants who maintained abstinence for three months articulated higher self-efficacy, more negative expectations for the effects of smoking, and more cognitive coping tactics. In a study using ATSS to compare the cognitive processes of 15 outpatients with major depression to 15 non-depressed psychiatric outpatients, two blind raters coded transcripts according to the following a priori codes that reflect types of cognitive distortions common among depressed patients: arbitrary inference, selective abstraction, overgeneralization, magnification, personalization, and dichotomous thinking. Coders were provided with cognitive distortion definitions and asked to rate each code during each segment on a one-to-five scale. Scores on these variables were then summed to create a total cognitive bias score ranging from 30 to 150 in each simulated situation. Depressed patients had greater cognitive bias compared to non-depressed patients only within the negative simulated situation (White et al., 1992).

ATSS has been successfully used with high school students and children (DiLiberto et al., 2002; O'Brien, Margolin, John, & Krueger, 1991; Rayburn et al., 2007). For example, the cognitions of an ethnically diverse sample of aggressive and non-aggressive high school age adolescents were examined as they listened to simulated depictions of a provocative peer interaction in the hallway at school. A team of four coders that were blind to the purpose of the study coded according to transcript content that fit operational definitions for the following codes: verbalizations of anger, aggressive intent, and hostile attribution. Compared to their female counterparts, males expressed more aggressive intent. Similarly, aggressive youth expressed more anger and aggressive intent. In addition, researchers found that adolescents who verbalized anger and aggressive intent on ATSS reported similar

expressions of intense anger on the STAXI-2, a self-report inventory, suggesting that ATSS is an acceptable tool for measuring cognitive factors among aggressive youth.

Rayburn and colleagues (2007) also successfully utilized ATSS to examine the reactions to dating violence of a sample of 41 Latino adolescents. Two researchers independently coded a randomly selected subset of 10 transcripts using QSR N6, a qualitative data analysis software package, for an a priori list of twenty ATSS codes representing attitudes about dating violence, attitudes toward the perpetrator and victim involved in the conflict, and strategies for intervening in the conflict. For each transcript, coders rated whether a certain code was present on a five-point scale where zero indicates *“Code not mentioned in any of the five segments”* to five which is equivalent to *“Code mentioned one or more times in each of the five segments.”* Once reliability was established, one coder coded the remaining 31 transcripts. Coding revealed that youths’ reactions to dating violence significantly differed across gender of the participant, gender of the perpetrator in the script, and with the participant’s familiarity with the perpetrator. For example, girls displayed more anger and fear, and reported both a greater justification for and condemnation against violence compared to boys. In contrast, boys reported a greater desire to diffuse the violent situation. When the perpetrator was male, participants were more likely to report the use of physical aggression, seeking adult and police intervention, condemnation of violence, and concern for the participant’s own wellbeing. On the other hand, participants were more likely to report ridiculing the victim, and a justification of the violence when the perpetrator was female. Finally, participants were more likely to report the use of physical aggression, seeking police intervention, and helping the victim to escape when the perpetrator was a stranger compared to a friend.

ATSS has been shown to be an effective method for identifying adults' and youths' cognitive processes in a range of simulated situations. Research has established that ATSS participants are able to express their thoughts about the scenario during the paradigm, and demonstrated that data obtained from these assessments typically cluster into meaningful content categories and can be coded reliably (Davison et al., 1997). Overall, in contrast to other methods, ATSS appears to offer a promising means for obtaining useful information about adolescents' immediate processing and situation-specific responding. For these reasons, ATSS was used to study social information-processing patterns in peer victimization situations within the current project.

Statement of the Problem

This study had several objectives. A main goal was to examine the social-cognitive processes of middle school students as they related to peer victimization situations. In order to achieve this goal, a new, more sensitive, measure of social information-processing patterns was developed. The current study developed and evaluated an ATSS measure of social information-processing skills to address this goal. It was hypothesized that adolescents would respond to the ATSS paradigm by expressing thoughts in real-time and generating responses. Psychometric analyses of ATSS were used to evaluate this measure. A second objective was to understand how youth adjustment influenced these social-cognitive processes. In particular, this project examined the social information-processing patterns of well-adjusted youth compared to distinct subgroups of poorly adjusted youth, as they related to peer victimization situations. Several steps were taken to address this objective. First, a latent profile analysis was conducted to identify distinct clusters of poorly adjusted youth and well adjusted youth who differ on self-report measures of aggression, victimization, depression, anxiety, anger dysregulation, nonviolent behavior, and social skills. It was hypothesized that four clusters of youth identified in previous work as well-adjusted, neglected, aggressive-victims, and passive-victims would be identified using latent profile analysis. Once clusters were identified, differences in social information-processing patterns between well-adjusted youth and distinct subgroups of poorly adjusted youth as they related to peer victimization were examined.

As the nature of the specific clusters was not known prior to conducting this study, initial hypotheses regarding specific group differences were based on expected differences in adjustment variables. First it was hypothesized that groups who reported high levels of

aggressive behavior would report significantly more hostile intent attributions and beliefs supporting the use of aggression than clusters of youth with low reported levels of aggression (e.g., well-adjusted youth, neglected youth). For example, studies have found that pure aggressors (bullies) view the use of aggression more favorably than a normative group, and that pure aggressors and aggressive-victims also significantly differ in their beliefs about aggressive behavior (Toblin et al., 2005). Secondly, it was hypothesized that groups higher on victimization (e.g., passive-victims) would be more likely to report internal causal attributions compared to their peers. For instance, Garner and Lemerise (2006) suggested that children who view their aggressors' as feeling sorry for aggressing against them are more likely to be victimized and may be more likely to blame themselves for their poor treatment. Less is known about how other kinds of adjustment influence social-cognitive processes. Thus, other hypotheses were more exploratory in nature. It was expected that youth higher on perceived levels of social skills and lower on internalized problems (e.g., well-adjusted) would report more positively oriented schemas regarding values about relationships, and about right, wrong and fairness in the world. In addition, it was expected that youth reporting higher levels of depression would report significantly more hostile intent attributions, internal causal attributions (e.g., Quiggle et al., 1992), and more negatively oriented schemas regarding values about relationships, and right, wrong, and fairness in the world compared to their less depressed peers.

The current study expanded upon the existing literature in several ways. Verbal victimization has only been examined distinctly from other forms of victimization in a small collection of studies. However, these studies have demonstrated that verbal victimization is a unique type of victimization that is perceived as stressful and has a significant impact on

adolescent adjustment (Bettencourt, 2006; Farrell et al., 1998; Mazefsky & Farrell, 2005; Perry et al., 1988). Verbal victimization merits specific attention because there is evidence that it can lead to unique adjustment problems compared to other forms of peer aggression (Kochenderfer & Ladd, 1996). Several studies have examined verbal victimization separately from other kinds of victimization and found support for its cross-sectional and prospective relations with symptoms of aggression and anxiety (Bettencourt, 2006; Farrell et al., 1998; Mazefsky & Farrell, 2005). In addition, only one study could be found that has looked at all three subtypes of peer victimization, verbal, physical, and relational, separately within the same study. However, this study defined relational acts of victimization as indirect verbal victimization which reflects a slightly different construct, and assessed victimization rates within a predominantly Caucasian sample of kindergarteners (Kochenderfer & Ladd, 1996). The current study built on the existing knowledge by continuing to examine verbal victimization as a distinct form of victimization, and in providing a means for examining the three distinct forms of victimization in one study.

The current study examined social information-processing patterns of well-adjusted youth and distinct subgroups of poorly adjusted youth in response to peer victimization scenarios. Previous research has primarily focused on examining differences in social information-processing and response patterns between aggressive and non-aggressive youth (Crick & Dodge, 1994). There is a growing literature base that examines coping patterns among more narrowly defined subgroups of youth. However, the focus has predominantly been on younger age groups, such as elementary school students (e.g., Schwartz, 2000; Toblin et al., 2005). A limited number of studies have identified distinct adjustment subgroups among adolescents (e.g., Sullivan & Farrell, 2007; Haynie et al., 2001; Unnever,

2005). Each of these studies has identified slightly different adjustment clusters suggesting that more research is needed to determine if there is a particular pattern of clusters among this age group, or if it is simply dependent on the specific adjustment indices employed. Further, previous research has not examined these adjustment clusters specifically in connection with peer victimization situations. The current study extended the existing literature base by examining differences in social information-processing patterns between well-adjusted youth and specific subgroups of poorly adjusted youth (i.e., neglected, aggressive-victims, and passive-victims) when these youth were exposed to simulated peer victimization experiences. The use of clusters instead of continuous adjustment measures has important implications for violence prevention efforts in that it will facilitate the identification of youth who can benefit most from these interventions.

This study also used an innovative approach, ATSS, to assess social information-processing patterns. Previous studies have generally used structured interviews and self-report measures linked to hypothetical vignettes (Crick & Ladd, 1990; Zelli et al., 1999). Even though these assessment tools provide important information, the content, structure, and timing of the measures limits the information on social information-processing patterns that can be obtained. ATSS provides a novel alternative that measures youths' immediate processing and situation-specific responding in as close to real time as possible. To date, ATSS has been successfully used with a range of adult populations and in two studies with youth to assess cognitions associated with a variety of behaviors including aggression (e.g., DiLiberto et al., 2002; Eckhardt & Jamison, 2002). However, ATSS had not previously been used to examine cognitive processes (i.e., beliefs, intent attributions) specifically in simulated

peer victimization situations. The current project extended the research by using ATSS to measure youth's social information-processing patterns during peer victimization scenarios.

This study was conducted in two phases. Phase One was conducted to identify clusters of youth based on their responses to a number of measures of adjustment, including aggression, victimization, depression, anxiety, anger dysregulation, and social skills. Phase Two involved analyses based on a subset of Phase One participants, who completed the ATSS interview, which assessed their schemas and social information-processing patterns when exposed to simulated peer victimization scenarios.

PHASE ONE

Method

Participants

Participants represented sixth grade students from two school systems. A sample of 308 (50% boys) sixth grade students, ages 10 to 14, from two middle schools in the public school system of a large city in the Southeastern United States participated in this study. The majority of these students were African American (83%), 2.3% indicated they were Hispanic, and the remainder identified themselves as Caucasian, or other ethnicity. Nineteen percent of this sample indicated that they reside with both of their biological parents. The second sample included 215 (48% boys) sixth grade students, ages 10 to 13, from one middle school in a public school system of an adjoining county. This sample was 45% Caucasian, 40% African American, and the remainder identified themselves as Hispanic, or other ethnicity. Fifty-two percent of this sample reported that they reside with both of their biological parents.

Procedures

Youth were recruited as part of the recruitment and consenting procedures for a larger project within the Clark-Hill Institute for Positive Youth Development. All procedures were approved by the Institutional Review Board (IRB) of Virginia Commonwealth University. Students were randomly selected from school rosters and the sample was evenly divided by gender. Study staff approached students individually or in small groups, introduced the study, distributed student assent forms and parental consent forms, reviewed the consent forms and answered questions. During the informed consent discussion, students were informed of their rights as research participants, including that they could decline participation with no

negative consequences and could limit or discontinue their participation at any time. Students and their parents received an extra copy of the consent forms to keep for future reference including phone numbers to call study staff and for the University's Office of Research Subjects' Protection. Students were instructed to take consent forms home and discuss the project with their parents. They were then asked to return the consent forms as soon as possible. As needed, staff made phone calls and home visits to parents to explain the study, answer any questions and invite their participation. Students received a five dollar gift certificate (i.e., Walmart) for showing the consent form to their parents and returning it to research staff, whether or not they or their parents agreed to participate. Once active parental consent and student assent were obtained, students were scheduled to complete assessments at the participating middle schools. Students received a \$10 gift certificate for participating in the survey, whether or not they opted to discontinue or limit participation in the survey.

The current project was conducted in conjunction with a study investigating risk and protective factors for aggressive behavior and nonviolent behavior. Self-report measures assessing adolescent adjustment were administered to students using a Computer Aided Personal Interview (CAPI) during Fall 2008. Using this technology, survey questions were presented visually on the computer screen, and students also heard audio recordings of the questions through headphones worn by the participant in order to compensate for reading difficulties. Each adolescent independently responded to items using the laptop mouse or touch pad to select answers. A research assistant was also available in case participants had questions or difficulties, but the participants were able to enter their own answers privately. Prior to administering measures, research assistants read instructions regarding the purpose of the testing, confidentiality, and the option to not participate. Students who chose not to

participate were asked to leave the testing room. All self-report data from the CAPI were stored in a file on the computer and then converted to SPSS data files for analysis.

Measures

The current study used the Problem Behavior Frequency Scale, the Children's Depression Inventory, the Revised Children's Manifest Anxiety Scale, the Children's Anger Management Scale, and the Social Skills Rating System to assess adjustment and determine cluster membership. All of these scales except the Children's Anger Management Scale and the Social Skills Rating System were previously used by Sullivan and Farrell (2007) to identify the specific adjustment clusters (i.e., aggressive-victims, passive-victims, neglected youth, well-adjusted youth), which the current study attempted to replicate. Due to limitations in available measures of social acceptance within the larger data collection effort, the Social Skills Rating System was used in place of the Self-Perception Profile as a measure of behavior within the social context. In addition, given empirical evidence suggesting that aggressive-victims display poor emotional control, and engage in reactive aggression (Crick & Dodge, 1996), it seemed important to capture this aspect of aggressive-victim's adjustment. Thus, the Children's Anger Management Scale was identified as an appropriate measure of reactive aggression.

Problem Behavior Frequency Scale. The Problem Behavior Frequency Scale consists of eight scales that assess the frequency of problem behaviors (Farrell, Kung, White, & Valois, 2000; Sullivan, Esposito, & Farrell, 2003). The physical, nonphysical, and relational aggression, overt and relational victimization, and nonviolent behavior subscales were used for the current study. These subscales include six items that assess how frequently youth engage in specific forms of physical aggression (e.g., "Hit or slapped someone"), six

items that measure how frequently youth engage in specific forms of nonphysical aggression (e.g., “Teased someone to make them angry”), six items that measure how frequently youth engage in specific forms of relational aggression (e.g., “Left another kid out on purpose when it was time to do an activity”), six items that measure how frequently youth experience acts of relational victimization (e.g., “had someone spread a false rumor about you”), six items that measure how frequently youth experience acts of overt victimization (e.g., “Been pushed or shoved by another kid”), and seven items that measure how frequently youth engage in specific forms of effective nonviolent behavior (e.g., “Walked away when someone wanted to fight you”). For each item respondents indicated how frequently each item happened in the 30 days prior to the survey, using the following 6-point response scale: 1 = *Never*, 2 = *1-2 times*, 3 = *3-5 times*, 4 = *6-9 times*, 5 = *10-19 times*, and 6 = *20 or more times* with higher scores representing higher levels of the specific behavior. Previous evidence of significant relations between these problem behavior scales and other relevant constructs (e.g., drug use, approval of aggression) provide evidence of good convergent validity for this scale (Farrell et al., 2000) In the current sample, the alphas were as follows: relational aggression subscale was .69, nonphysical aggression subscale was .78, physical aggression subscale was .80, effective nonviolent behavior subscale was .77, relational victimization was .85, and overt victimization was .86.

Children’s Depression Inventory. The Children’s Depression Inventory (CDI) is a self-report, symptom-oriented scale designed to measure youth’s depressive symptoms. The CDI has 27 items. For each item, the adolescent is instructed to select one of three statements that best describes him/her for the past two weeks. Responses are scored such that: 0 indicates an absence of symptoms, 1 indicates mild symptoms, and 2 indicates definite

symptoms. The total score can range from 0 to 54. Internal consistency reliability coefficients range from $\alpha=.71$ to $.89$ with various samples (Kovacs, 1985). There is evidence of good discriminant validity and convergent validity (e.g., Craighead, Curry, & Ilardi, 1995). There is also evidence of fair to good construct validity across ethnic groups (e.g., Steele et al., 2006). For the current sample, the alpha was $.87$.

Revised Children's Manifest Anxiety Scale. Adolescents' level of trait anxiety was measured using the Revised Children's Manifest Anxiety Scale, a 37 item self-report measure (Reynolds & Richmond, 1978). This scale includes a total measure of anxiety as well as four individual subscales representing Physiological Anxiety, Worry/Over-sensitivity, Concentration, and Social Desirability. Students are asked to report whether each item is true for them by responding with a "Yes" or "No" answer. Scores on this measure represent level of anxiety with higher scores indicative of higher levels of anxiety. Given the interest in overall level of anxiety, only the total Anxiety scale score was used to determine cluster membership. Test-retest reliability is $.68$ (Reynolds, 1982). Previous studies have also established evidence of discriminant validity of this scale in differentiating anxious and non-anxious youth (Perrin & Last, 1992), good convergent validity with other measures of anxiety (e.g., Muris, Merckelbach, Ollendick, King, & Bogie, 2002), and good construct validity across ethnic groups (e.g., Reynolds & Paget, 1981). For the current sample, the alpha was $.91$.

Children's Anger Management Scale. The Children's Anger Management Scale is a 15-item self-report measure that consists of three subscales assessing Anger Emotion Regulation coping, Anger Inhibition, and Anger Dysregulated Expression (Zeman, Shipman, & Penza-Clyve, 2001). The Anger Dysregulated Expression subscale was used in this study

to assess participants' anger expression (e.g., "When I get angry, I take it out on people"). This subscale contains five items. Participants were asked to rate how much they agree with a series of statements about their dysregulated expression of anger on a 3-point scale where 1 is *Hardly Ever*, 2 is *Sometimes*, and 3 is *Often*. Test-retest reliability is .62. Previous research has also established evidence of construct validity within samples of predominantly Caucasian youth (Zeman et al., 2001). For the current sample, the alpha for the Anger Dysregulated Expression subscale was .74.

Social Skills Rating System. The Social Skills Rating System is a 34-item self-report measure that consists of four subscales assessing Cooperation, Empathy, Assertion, and Self-Control (Gresham & Elliot, 1990). Participants were asked to rate how often they engage in the social behavior on a 3-point scale where 1 is *Never*, 2 is *Sometimes*, and 3 is *Often*. For the current study, the 34-item total Social Skills Rating scale was used. Internal consistency was .86 and test-retest reliability was .58 for the Total Social Skills Rating Scale. There is also evidence of good convergent and discriminant validity (DiPerna & Volpe, 2005). For the current sample, the alpha was .94.

Analyses

A latent profile analysis was conducted to explore cluster membership based on responses to self-report measures obtained from the CAPI interview. Previous work within the same population of predominantly African American middle school students identified four clusters (passive-victims, aggressive-victims, neglected, well-adjusted) of youth based on responses to measures of victimization, aggression, depression, anxiety, and perceived social acceptance (Sullivan & Farrell, 2007). As the current study was conducted with the same population, it was hypothesized that these clusters would be replicated in the current

project. Latent profile analysis model relative fit was assessed using the Bayesian information Criterion (BIC) as research suggests that the BIC performs the best of the information criteria. Smaller values of BIC indicate better fit to the data or the increased probability of replication of the specific solution (Nylund, Asparouhov, & Muthen, 2007). In addition, the Vuong-Lo-Mendell-Rubin Likelihood Ratio Test was used to compare the relative fit of two models of different class size. More specifically, the null hypothesis of this test suggests that the model with $k-1$ classes fits the data as well as the full model with k classes. Thus, a small probability value suggests that the $k-1$ class model should be rejected in support of the model with k classes (Nylund et al., 2007). Once the latent profile model was fit, the posterior class probabilities, values that indicate the individual's chances of being in each of the latent classes of the fitted model (Nylund, 2007), were examined in order to assign cluster membership.

Results

Descriptive Statistics

Means and standard deviations for all scales used in this study are reported in Table 1 by gender. Analyses of variance identified one significant gender difference across the ten scales. Girls reported higher levels of social skills compared to boys.

Table 1

Means and Standard Deviations for Each Scale by Gender

Scale	Boys		Girls		F ^a
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
CAMS Dysregulated Anger Expression	8.43	2.58	8.29	2.57	0.36
PBFS Physical Aggression	1.71	0.82	1.65	0.79	0.66
PBFS Non-physical Aggression	1.70	0.79	1.68	0.77	0.16
PBFS Relational Aggression	1.57	0.65	1.48	0.58	2.47
PBFS Overt Victimization	1.78	0.91	1.67	0.87	2.05
PBFS Relational Victimization	1.60	0.78	1.63	0.84	0.25
PBFS Nonviolent Behavior	2.47	0.97	2.52	1.03	0.39
Children's Depression Inventory	8.26	6.96	8.15	6.52	0.03
Revised Children's Manifest Anxiety Scale	8.59	6.49	9.36	6.55	1.68
Social Skills Rating System	77.96	12.23	81.81	11.14	12.87**

Note. *Ns* ranged from 229 to 255 for boys and from 247 to 264 for girls due to missing data. CAMS = Children's Anger Management Scales. PBFS = Problem Behavior Frequency Scales.

^aAnalysis of Variance F Test examined gender differences within each scale.

p* < .05 *p* < .001.

Correlations among all variables used in this study are reported in Table 2. The majority of variables were significantly correlated with each other. Several variables were highly correlated with each other, including physical and nonphysical aggression ($r = .74$), relational and nonphysical aggression ($r = .76$), and anxiety and depression ($r = .71$). The majority of the remaining correlations were low to moderate with a few exceptions. Several variables were not significantly correlated with each other. These included nonviolent behavior with physical aggression and nonphysical aggression. In addition, the social skill variable was not significantly correlated with relational victimization or anxiety.

Latent Profile Analyses

A series of analyses using Mplus 5.2 (Muthen & Muthen, 2008) was conducted to examine the hypothesis regarding the number of distinct profiles of youth. Solutions specifying one to five classes were run, and the number of groups was identified based on the interpretability of the classes, and the model fit statistics: the Bayesian Information Criteria (BIC), and the Vuong-Lo-Mendell-Rubin Likelihood Ratio Test (VLMR). Solutions were identified for one, two, three, four, and five groups. Table 3 displays fit statistics for the models. Given that model fit significantly improved between the one class and two class solutions, the one class solution will not be discussed. The two-, three-, four- and five-class solutions will be discussed in detail.

Table 2
Correlations Among Variables

Variable	1	2	3	4	5	6	7	8	9
1. CAMS Dysregulated Anger Expression	1.00								
2. PBFS Physical Aggression	.43**	1.00							
3. PBFS Non-physical Aggression	.45**	.74**	1.00						
4. PBFS Relational Aggression	.37**	.65**	.76**	1.00					
5. PBFS Overt Victimization	.16**	.45**	.38**	.38**	1.00				
6. PBFS Relational Victimization	.21**	.32**	.34**	.42**	.66**	1.00			
7. PBFS Nonviolent Behavior	-.12**	.02	.05	.11*	.36**	.39**	1.00		
8. Children's Depression Inventory	.28**	.29**	.23**	.24**	.37**	.36**	.03	1.00	
9. Revised Children's Manifest Anxiety Scale	.21**	.22**	.24**	.21**	.39**	.40**	.18**	.71**	1.00
10. Social Skills Rating System	-.21**	-.32**	-.26**	-.19**	-.12**	-.05	.25**	-.30**	-.06

Note. CAMS = Children's Anger Management Scales. PBFS = Problem Behavior Frequency Scales.

* $p < .05$ ** $p < .001$.

Table 3.

Fit Statistics for Latent Profile Models

Number of Classes	BIC	V-L-M-R
One	9630.83	Not applicable
Two	8530.18	-4752.84**
Three	8231.60	-4168.01**
Four	8036.42	-3984.39*
Five	7943.22	-3852.38

Note. BIC = Bayesian Information Criterion. V-L-M-R = Vuong- Lo-Mendell-Rubin.

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

Two-class solution. The VLMR likelihood ratio test for the two-class solution was significant suggesting that the two-class solution fit the data significantly better than the one-class solution. Figure 1 displays the two class solution. In order to facilitate comparing the classes on the distinct adjustment variables which varied in scaling, all variables were standardized (i.e., all raw scores were converted to Z-scores). Class One ($n = 332$, 64%), referred to as the well-adjusted group, was distinguished by the lowest levels of dysregulated anger expression, physical, nonphysical, and relational aggression, relational and overt victimization, anxiety, and depression. In contrast, this group reported an average level of nonviolent behavior, and the highest level of social skills. Class Two ($n = 190$, 36%), referred to as the aggressive-victimized group, was marked by the highest level of physical, nonphysical, and relational aggression, relational and overt victimization, anger dysregulation, anxiety, and depression. In contrast, this group reported the lowest level of social skills.

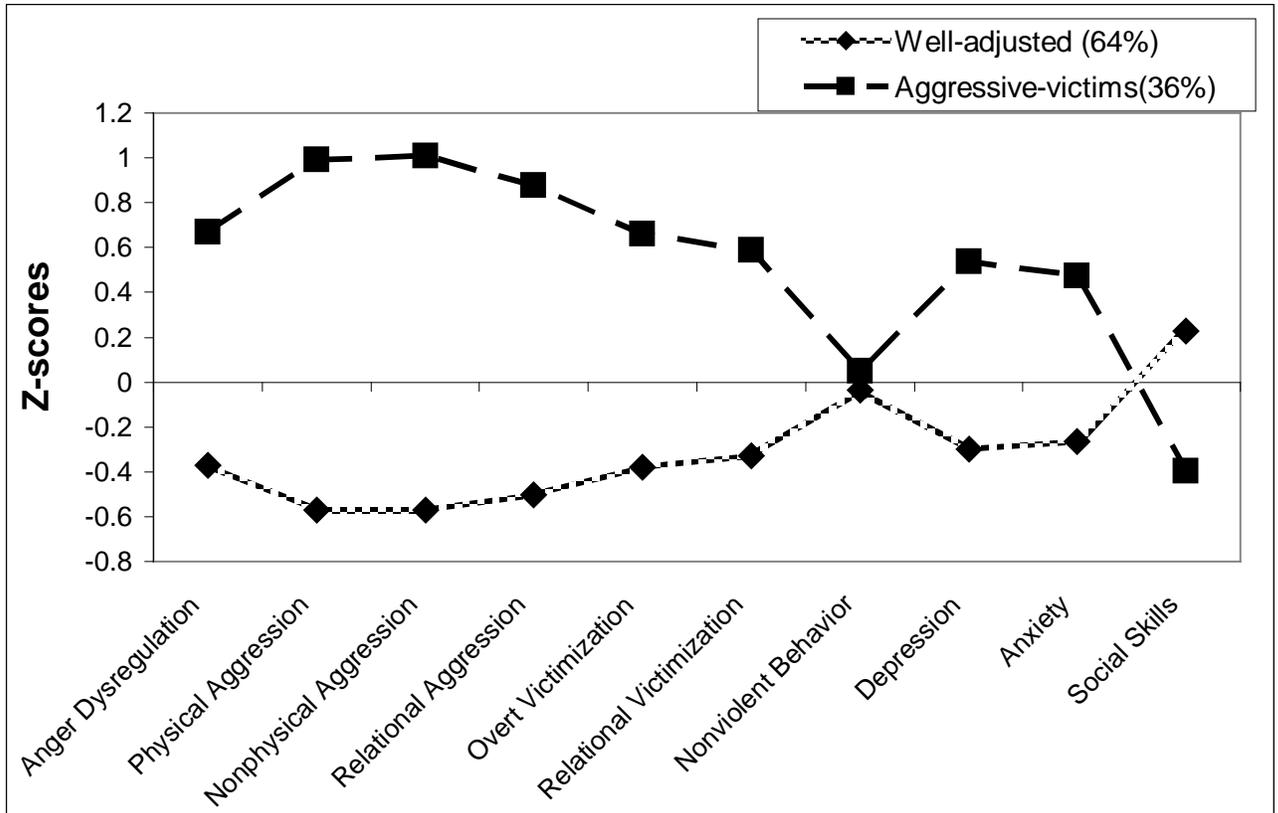


Figure 1. Two-class solution representing the mean levels of Z-scores for each variable within each of the three groups.

Three-class solution. The VLMR likelihood ratio test for the three-class solution was significant suggesting that the three class solution fit the data significantly better than the two-class solution. Figure 2 displays the three-class solution. This solution differed from the two-class solution in that it appeared to split the aggressive-victimized group into a highly aggressive and victimized group and a moderately aggressive and victimized group. In addition, some youth who were originally classified as well-adjusted, became classified as aggressive and victimized. Class One ($n = 275, 52\%$), referred to as the well-adjusted group, was distinguished by the lowest levels of dysregulated anger expression, physical, nonphysical, and relational aggression, relational and overt victimization, anxiety, and depression. In contrast, this group reported an average level of nonviolent behavior, and the

highest level of social skills. Class Two ($n = 179, 34\%$), referred to as the moderately aggressive-victimized group, was marked by slightly above average levels of dysregulated anger, physical, nonphysical, and relational aggression, overt and relational victimization, anxiety, and depression. Although this group reported slightly below average social skills, they also reported an average level of nonviolent behavior. Class Three ($n = 68, 13\%$), referred to as the highly aggressive-victimized group, was distinguished by significantly elevated levels of physical, nonphysical, and relational aggression, overt and relational victimization, and moderately elevated levels of anxiety and depression. In contrast, this group displayed below average social skills. Notably, this group also displayed the highest level of nonviolent behavior, which seems uncharacteristic given their other behavioral adjustment markers.

Four-class solution. The VLMR likelihood ratio test for the four-class solution was significant suggesting that it significantly improved upon the fit of the three-class solution. Figure 3 displays the four-class solution. This solution differed from the three-class solution in that it included a purely victimized group as well as a purely aggressive group. Class One ($n = 259, 50\%$), referred to as the well-adjusted group, was distinguished by well below average levels of dysregulated anger expression, physical, nonphysical, and relational aggression, overt and relational victimization, anxiety, and depression. In contrast, this group reported an average level of nonviolent behavior, and the highest level of social skills. Class Two ($n = 67, 13\%$), referred to as the aggressive-victims, was characterized by the highest level of physical, nonphysical, and relational aggression and elevated levels of relational and overt victimization, anger dysregulation,

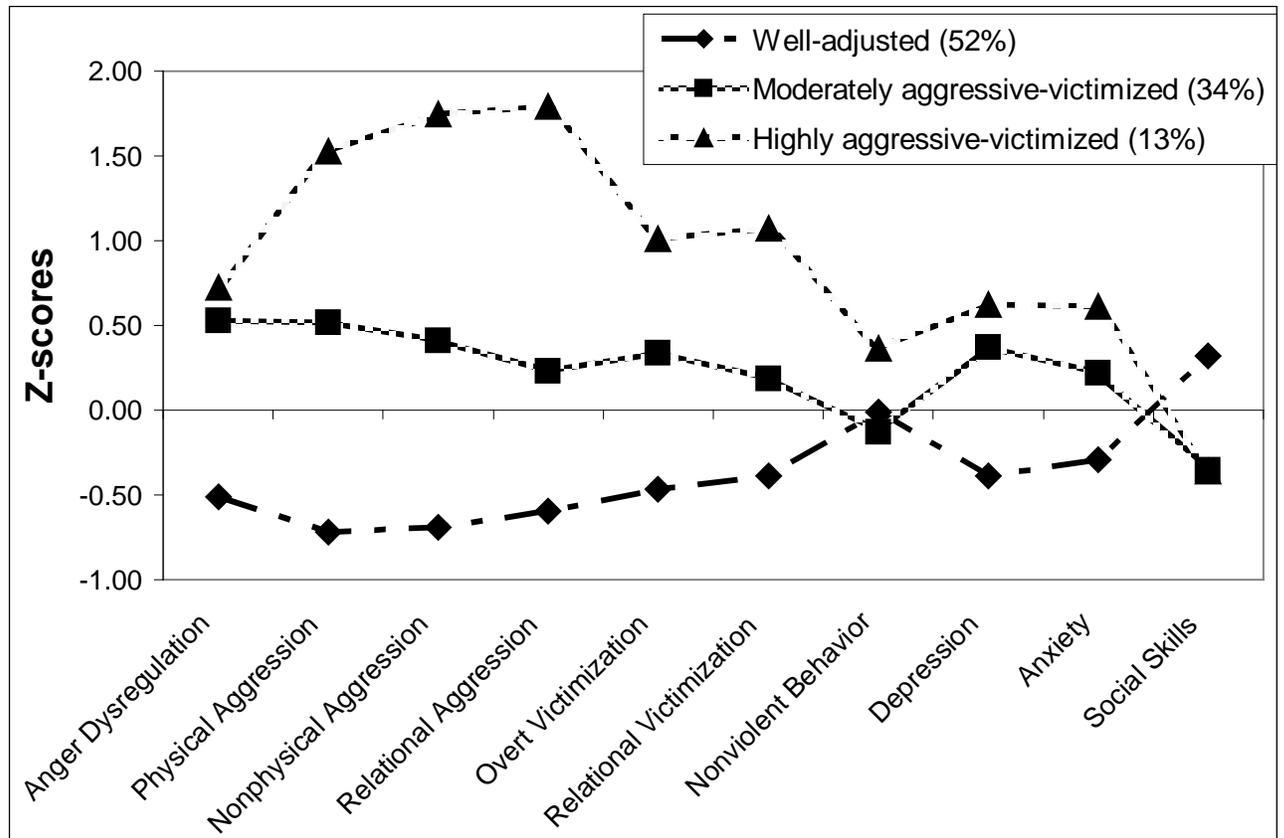


Figure 2. Three-class solution representing the mean levels of Z-scores for each variable within each of the three groups.

anxiety, and depression. In contrast, this group reported below average levels of social skills. Notably, this group also reported engaging in above average levels of nonviolent behavior, which appears inconsistent with the overall profile. Class Three ($n = 137, 26\%$), referred to as the aggressors, was distinguished by moderately elevated levels of physical, nonphysical, and relational aggression, anger dysregulation, and depression; average levels of overt victimization and anxiety; below average levels of relational victimization, nonviolent behavior, and social skills. Class Four ($n = 59, 11\%$), referred to as the passive-victims, was marked by average to slightly below average levels of anger dysregulation, physical, nonphysical and relational aggression, and social skills. Conversely, this group reported high

levels of overt and relational victimization, and above average levels of nonviolent behavior, anxiety, and depression.

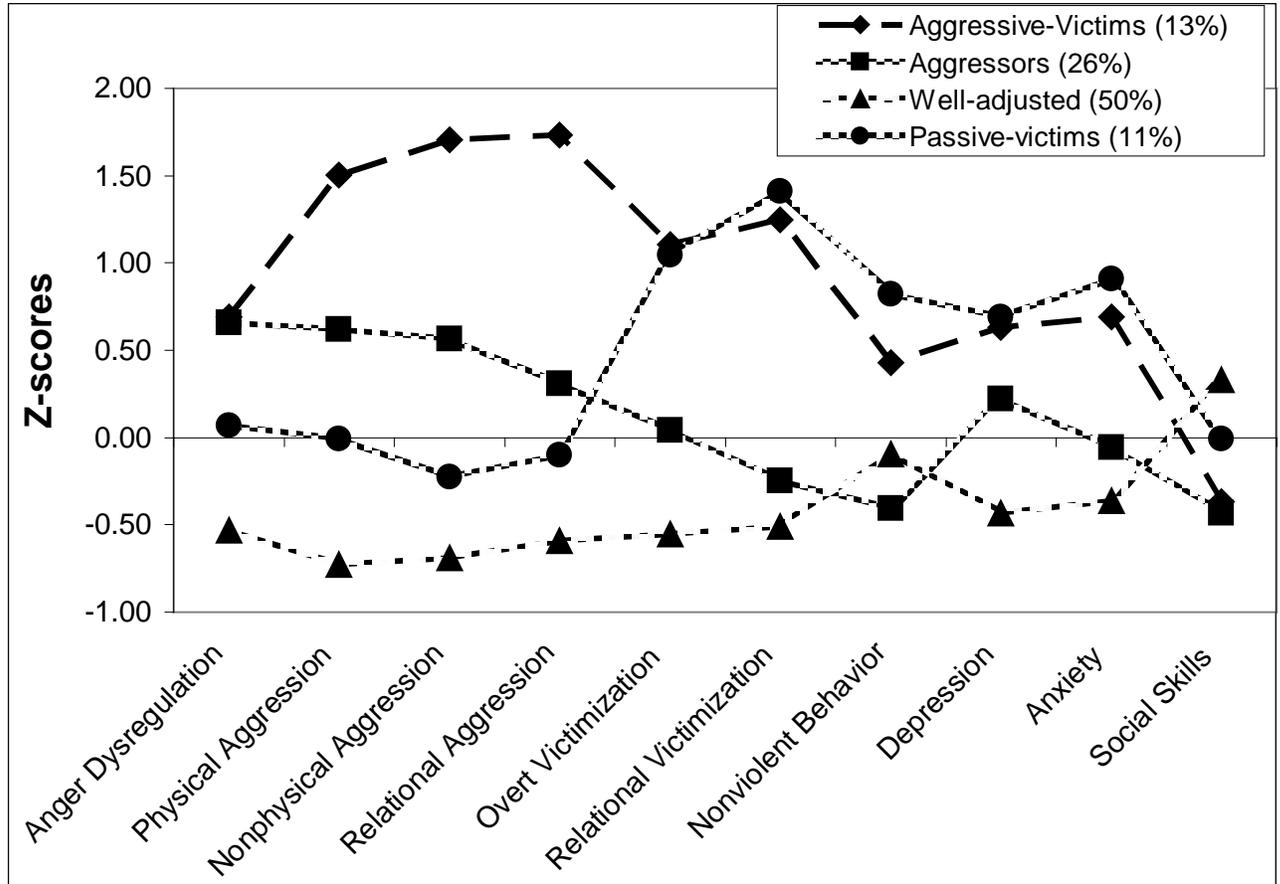


Figure 3. Four-class solution representing the mean levels of Z-scores for each variable within each of the four groups.

Five-class solution. The VLMR likelihood ratio test comparing the five-class and four-class models was not significant ($p = .21$) suggesting that adding a fifth group did not improve upon the four-class solution. Figure 4 displays the five-class solution. This solution differed from the four-class solution because it separated the purely aggressive group from the four class solution into a highly aggressive group and a moderately aggressive and depressed group. Class One ($n = 249, 47%$), designated as the well-adjusted group, was marked by the lowest levels of anger dysregulation, physical, nonphysical and relational

aggression, overt and relational victimization, anxiety, and depression. Conversely, this group reported average levels of nonviolent behavior, and the highest levels of social skills.

Class Two ($n = 33$, 6.5%), referred to as the highly aggressive group, was distinguished by the highest levels of physical, nonphysical, and relational aggression, above average levels of anger dysregulation and depression, and average to below average levels of overt and relational victimization, nonviolent behavior, anxiety, and social skills. Notably, this group reported the lowest level of social skills compared to the other three groups.

Class Three ($n = 139$, 26%), referred to as the moderately aggressive and depressed group, was identified by moderately elevated levels of anger dysregulation, physical, nonphysical and relational aggression, and depression. In addition, this group displayed average to below average levels of overt and relational victimization, anxiety, nonviolent behavior, and social skills.

Class Four ($n = 51$, 10%), designated as the aggressive-victimized group, was characterized by high levels of physical, nonphysical, and relational aggression, and overt and relational victimization; moderately elevated levels of anger dysregulation, nonviolent behavior, anxiety, and depression; and average levels of social skills.

Class Five ($n = 50$, 9%), referred to as the purely victimized group, was identified by average to below average levels of anger dysregulation, physical, nonphysical, and relational aggression, and social skills; and elevated levels of overt and relational victimization, nonviolent behavior, anxiety and depression.

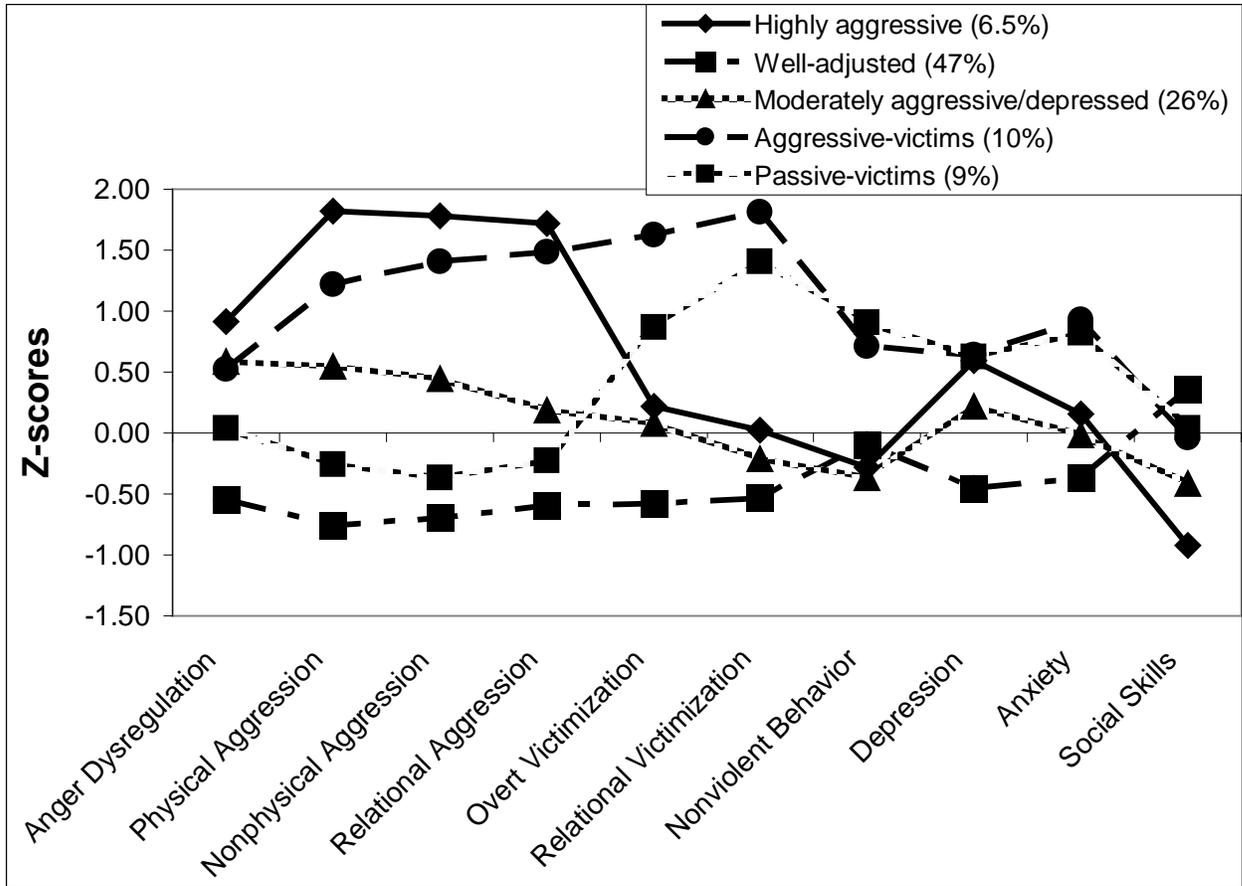


Figure 4. Five-class solution representing the mean levels of z scores for each variable within each of the five distinct groups.

The four-class solution was identified as the best fitting model because it achieved significantly better model fit compared to the three-class solution, and the four identified groups were consistent with previous research (e.g., Unnever, 2005). This model closely approximates the latent classes identified by Sullivan and Farrell (2008). However, the current solution includes a purely aggressive group whereas Sullivan and Farrell (2008) did not identify such a group. Instead, their solution included a neglected group of youth who reported low levels of aggression, victimization, anxiety, and depression as well as poor peer acceptance. Given the absence of a measure of social acceptance within the current study, it is not surprising that this neglected group was not identified.

PHASE TWO

Method

Participants

A random sample of students who participated in the initial self-report assessment was selected to complete the ATSS interviews. This sample included 109 (44% boys) sixth grade students, ages 10 to 14, from two middle schools in the urban school system and 64 (42% boys) sixth grade students, ages 11 to 13, from the middle school in the adjoining county. The majority of students in the urban schools were African American (87%), and the remainder identified as other ethnicity. Nineteen percent of the urban school system sample indicated that they reside with both of their biological parents. The sample from the county school was 45% Caucasian, 41% African American, and the remainder identified as Hispanic, or other ethnicity. Fifty-nine percent of this sample from the county school reported that they reside with both of their biological parents.

Procedures

Participants were randomly selected from those who completed the CAPI measures. Students were randomly selected from school rosters and the sample was evenly divided across school, and gender. The consent form for the CAPI measures, completed by youth and their parents indicated that they might also be selected to complete an additional assessment. A subset of 49 youth from two middle schools in the city and 24 youth from a school in the adjoining county who were selected for this study were also selected to complete a different interview related to their experience with a school-based intervention. Because this involved two additional assessments, a separate consent process, which included revised consent and assent forms, was used in order to request permission for these youth to participate in the

ATSS assessment. ATSS interviews were completed during the Spring 2009. Prior to administration, all participants were randomly assigned to one of 24 distinct ATSS protocols, which included the practice situation followed by a randomized order of four peer victimization situations to control for order effects. All students were asked to participate in the interviews during their elective periods in order to minimize disruption from classroom instruction. Of those students who consented to participate, four percent of the sample refused to complete the interview when approached by study staff. Students received a \$10 gift certificate for participating in the interview, whether or not they discontinued or limited their participation.

Articulated Thoughts in Simulated Situations (ATSS)

ATSS involved the presentation of audio-taped situations broken down into five to nine 15-second segments. After each segment, the tape was paused and participants were prompted to engage in a monologue of their thoughts, feelings, and reactions to the segment for 30 seconds (Davison et al., 1997). Participants listened to one neutral audio track of a peer interaction and three provocative audio tracks of peer victimization situations, and responded verbally at the designated points. Decisions about the number of scenarios needed were based on previous ATSS research, which has used between one and three scenarios to reliably assess participant cognitions (Davison et al 1997; DiLiberto et al., 2002). Through this method, detailed information about adolescent reasoning and problem-solving thinking in close to real time was obtained.

For the present study, eight scripts representing peer victimization situations from previous work were selected. The situation descriptions that served as the basis for these ATSS scripts were derived from several earlier studies. Sixty-one problem situations

identified in a qualitative study conducted by Farrell et al. (2007) that represented three domains, peer, school, and peer-school served as a starting point for situation development. Of those, a subset of 25 situations that were determined to be particularly relevant, frequent, and difficult for urban African American youth in a previous study (Farrell et al., 2006) were selected. Given the salience and difficulty of stressful events that occur within the context of interpersonal relationships (Crean, 2004; Farrell et al., 1998), problems within the peer domain were made the exclusive focus of the ATSS measure. Thus, 10 situations representing the school and peer-school domains were eliminated from consideration.

The 15 remaining problem situations were evaluated across a variety of dimensions. First, each situation was evaluated according to the types of internalized schemas/beliefs identified in previous work (Farrell et al., 2008) that could potentially be elicited by the situation. Those situations that addressed themes that were less well-represented across situations were highlighted. Next, situations were grouped into four categories according to the type of peer victimization, including physical victimization, verbal victimization, and relational victimization. Five situations were eliminated because they did not address any of the types of peer provocation targeted for this project. Of the 10 remaining situations, two that overlapped the most with others in this set were eliminated. A final group of eight situations was selected for script development. Two of these were combined because they represented similar types of verbal victimization, and a separate situation was used twice to address the issue of bystander peer pressure to fight, from both the bystander and the participant's points of view.

Script development commenced with the division of the seven situations among a team of five researchers. Each researcher created scripts representing several different

versions of their assigned situation. These included a scenario in which the person listening to the tape is an active participant, a scenario in which the person witnesses the situation, and a scenario in which the person is being asked for advice by a friend or overhears a peer giving advice to their friend. Researchers incorporated a range of nonviolent and violent responses into their scripts, and in some cases created separate script versions, one employing nonviolent responses to conflict and the other resulting in a fight. This process yielded eighteen scripts. These scripts were then carefully reviewed by the research team and suggestions were made for revisions and/or for the elimination of certain scripts that were least viable for the current study. The end-product was a set of 14 scripts, including one practice situation that was used to orient participants to protocol.

Adolescents from a local high school acting group were recruited to provide feedback on script wording and to serve as actors for each of the scripts. All actors were African American, and the group included two boys and five girls. Actors were coached by research staff and recordings were monitored to ensure adequate sound quality. The 14 scripts were pilot tested with a sample of 22 youth, between the ages of 11-15. This pilot sample was 100% African American, and 64% female. Because thinking aloud is an unusual task, the experimental ATSS tapes were preceded by a practice tape to orient participants to the procedure, and allow time to establish rapport and assess compliance with the task. Students listened to the unfolding problem and were encouraged to put themselves in the situation, pretending that it was actually happening to them. Participants completed the ATSS interview, and a short questionnaire following the interview to assess their reactions to the ATSS procedure. This measure included questions about whether they found the situation engaging, how easy it was to talk during the 30-second segments, how easy or difficult it was

to generate thoughts about the situations, and any suggestions for improving the protocol. This process was used to revise the interview procedures and the ATSS scripts.

Interviewers were trained using procedures similar to Farrell et al. (2007), which included training in developmental and cultural considerations, building trust and rapport and engaging respondents in spontaneous role-playing. Pilot testing also provided an opportunity to practice the interview protocol, including the procedure for starting and stopping the audio tracks, appropriate prompts to use during the pauses and other verbal and nonverbal interview strategies to promote data collection.

Participants' verbalizations during the ATSS interview were audio-taped, transcribed, and coded for specific themes. More information about codes is provided in the analyses section. Data from the coding of transcripts from the ATSS pilot were used to select the final scripts used in the current study. Scripts were selected based on the number of a priori codes elicited by a given script, and participant feedback. After review of findings from the pilot, four scripts representing verbal, physical, and relational victimization were selected for the current study. The verbal victimization scenario involves the participant witnessing several peers teasing another peer about his/her family. In this situation, the teasing begins as relatively benign (e.g., "I heard your mama is so fat she can't fit through the doorways in your house.") and escalates over the course of the scenario, resulting in the victim of the teasing storming out of the lunch room. The relational victimization situation involves the participant overhearing their close friend and another peer talking about him/her. During this situation, these peers criticize the participant's clothes, indicate a plan to purposefully exclude the participant from a social event, and the "close friend" states that he/she only hangs out with the participant in order to receive help with their homework. The situation

culminates with the peers realizing that the participant has overheard them, and the “close friend” stating that they did not mean what they said about the participant. The first of the two physical victimization situations involves a peer trying to fight the participant while a group of students surround the pair and boost up the fight between the participant and this peer. Finally, the second physical victimization situation involves two peers questioning the participant about why he/she did not fight a peer who had previously teased the participant. Once this other peer bumps into the participant in the hallway and begins getting in the participant’s face, the participant’s friends encourage him/her to fight this peer. See Appendix A for complete versions of each script.

Analyses

ATSS interviews were transcribed and coded by a team of four graduate students. The coding process began with a list of 22 codes that were identified and operationalized based on previous research (see Farrell, Erwin et al., 2008). Three coders were in charge of coding all transcripts for a specific group of themes (e.g., Beliefs about fighting, Internalized prosocial values, etc.). The coders coded for the presence or absence (1 = presence, 0 = absence) of each code within each segment of each of the four situations. The fourth coder coded 20% ($n = 42$) of the sample for all themes in order to assess inter-rater reliability. The a priori themes represented five distinct categories, including beliefs about fighting, internalized values, attributions, behavioral intentions, and self-efficacy. The themes are described within category as follows. See Appendix B for the full coding manual:

Beliefs about Fighting:

1) *Ok to fight in response to physical aggression*- Belief that it is acceptable, and in some cases necessary to act aggressively if the other is the first aggressor, and physical aggression

justifies retaliatory aggression.

2) *Ok to fight in response to non-physical aggression*- Belief that certain instances of non-physical aggression (e.g., personal insults about the youth or his/her family) justify the use of physical aggression.

3) *Revengeful Style*- Belief that an action, typically aggression, is justified because of the behavior of another person (e.g., “he deserved it”). It is a tit-for-tat mentality, and may take the form of verbal threats.

4) *Beliefs against fighting*- Belief that fighting is wrong (e.g., I wouldn’t fight them because I don’t believe in violence).

Internalized Values:

1) *Internalized prosocial values and schemas*- Prosocial values, schemas, or motivations that are more general than those included in the subsequent themes of valuing relationships, valuing achievement, and future oriented thinking.

2) *Valuing Relationships*- General “rules” that youth have for how friends or family should behave that influence youth’s behavior (e.g., I believe that friends are not supposed to fight each other, they are supposed to talk it out and try to solve the problem a better way).

3) *Future-oriented thinking*- Expectations about one’s future, not related to academic performance, that influence adolescents’ responses to problem situations.

4) *Benevolence*- Belief that being nice, kind, and helpful is the right thing to do and usually leads to positive outcomes. Also includes the notion that being unkind usually leads to negative consequences.

5) *Trust*-Beliefs about trust that guide a youth's behavior. This may include the necessity of trust in a relationship, the importance of being trustworthy, and the general trustworthiness of others.

6) *Fairness*- Perceived unfairness and inequity from peers guides a student's response.

7) *Image and Reputation*- The perception of a threat (anticipated or actual) to status during transactions with peers motivates youth to respond in a certain way to protect/maintain or improve their image.

Attributions:

1) *Internal Causal Attributions*- Perceptions that the causes for a social event are a result of the way the individual behaved.

2) *External Causal Attributions*- Perception that the causes for a social event are external to the individual.

3) *Benign Intent Attributions*- Judgments that a peer's intentions are non-threatening or benign.

4) *Hostile Intent Attributions*- Judgments that a peer's intentions in a situation are purposely hostile.

Behavioral Intentions:

1) *Behavioral Intentions for Nonviolent Behavior*- Expressions of the participant's intent to engage in nonviolent behavior in response to the situation.

2) *Behavioral Intentions for Physical Aggression*- Expressions of the participant's intent to engage in physical aggression in response to the situation.

3) *Behavioral Intentions for Non-Physical Aggression*- Expressions of the participants intent to engage in non-physical aggression, including verbal aggression (teasing, threatening) or relational aggression (intentionally damaging the relationship) in response to the situation.

4) *Behavioral Intentions for Provocation*- Expressions of the participant's intent to engage in a response that is not intrinsically aggressive, but may ultimately lead to aggression.

Self-Efficacy:

1) *Self-Efficacy for Nonviolent Behavior*- Individual's perception of their ability to enact a particular nonviolent response in a specific situation. Responses often reflect youth's self-confidence (or lack), or fear of (or lack) of enacting response.

2) *Self-Efficacy for Fighting*- Individual's perception of his or her ability to enact a particular aggressive response in a specific situation. Responses often reflect youth's self-confidence (or lack), or fear of (or no fear) of enacting response.

After coding was completed, reliabilities were calculated using percentage agreement for categorical variables (i.e., presence, absence) and Cohen's kappa representing agreement corrected for chance agreement. It was decided that an acceptable level of reliability would be marked by a kappa statistic of .40 or greater, and 80% or higher agreement between coders (Hartmann, 1977). The initial reliability assessment yielded a number of codes with Kappa statistics under .40. Thus, a process of dropping low frequency codes, revising coding definitions by developing improved decision rules, and re-coding was undertaken.

A number of changes were made to the a priori list of codes in order to address poor reliability. First, four codes were dropped completely from the coding scheme due to the extremely low frequency with which each code occurred within the sample, poor reliability, and failure to achieve consensus between coders on coding decision rules. These codes were

revengeful style, internalized prosocial values and schemas, self-efficacy for fighting, and self-efficacy for non-violent behavior. In addition, several codes were combined in order to produce a new code. *Benevolence* and *Fairness* were combined to create a code representing *Beliefs about Right, Wrong, and Fairness*. This decision was made because there was significant conceptual overlap in the manner in which youth discussed these types of beliefs, and due to inconsistency in the use of decision rules for discriminating between codes, which negatively impacted reliability. In order to combine these two codes, the coding for *fairness* was merged into coding for *benevolence*. Similarly, *Valuing Relationships* and *Trust* were combined into a new code representing *Values about Relationships*. This decision was made because trust was cited by youth as a critical value within relationships (e.g., If she was a true friend, then you have to give some trust to her). In addition, difficulties deciding when to differentiate between these individual codes resulted in inconsistency in coders' decision rules and negatively impacted reliability for each code. Finally, the coding for *Behavioral Intentions for Provocation* was carefully reviewed by both the reliability coder and the original coder, and determined to have significant conceptual overlap with *Behavioral Intentions for Physical Aggression* as well as *Behavioral Intentions for Non-physical Aggression*. Thus, the text coded within this category was coded into one of the other aforementioned categories, and the code of *Behavioral Intentions for Provocation* was subsequently dropped from the coding scheme.

The revision of decision rules and the recoding of transcripts were undertaken for codes in which kappa coefficients were marginal (i.e., less than .40). This process involved the reliability coder and the primary coder agreeing upon revised decision rules, and subsequently independently recoding text. This process took place for *Ok to Fight in*

Response to Nonphysical Aggression, Internal Causal Attributions, External Causal Attributions, Benign Intent Attributions, and Hostile Intent Attributions. Additionally, due to the magnitude of revisions to definitions, decision rules, and coding within the Internalized Values realm (i.e., *Values about Relationships, Beliefs about Right, wrong and Fairness, and Image and Reputation*), a new random sample of 42 (i.e., 20% of the sample) transcripts was selected and coded by an additional coder to assess improved reliability. Once the second level of coding was completed, reliabilities were re-calculated, and a scored data-set of the revised codes was created. Table 4 lists inter-rater reliability for each code. All codes were scored as the presence or absence of the code.

Table 4

Inter-Rater Reliabilities for ATSS Codes

Code	Kappa	Percent Agreement
<i>Ok to fight in response to physical aggression</i>	.74	93%
<i>Ok to fight in response to non-physical aggression</i>	.83	97%
<i>Beliefs against fighting</i>	.61	85%
<i>Values about Relationships</i>	.79	92%
<i>Beliefs about Right, Wrong, and Fairness</i>	.59	82%
<i>Image and Reputation</i>	.53	91%
<i>Internal Causal Attributions</i>	.75	96%
<i>External Causal Attributions</i>	.66	88%
<i>Benign Intent Attributions</i>	.57	95%
<i>Hostile Intent Attributions</i>	.54	83%
<i>Behavioral Intentions for Nonviolent Behavior</i>	.40	85%
<i>Behavioral Intentions for Physical Aggression</i>	.75	89%
<i>Behavioral Intentions for Non-Physical Aggression</i>	.56	84%

Note. Reliabilities were based on agreement between coders on the presence/absence of the code within each situation ($N = 168$).

Because the latent profiles that emerged from the analyses in Phase One were somewhat different than expected, a revised set of hypotheses was proposed. These hypotheses were as follows: 1) Aggressive-victims and aggressors will be significantly more likely to display intentions to engage in physical and nonphysical aggression, and beliefs that it is ok to fight a peer in response to physical and nonphysical aggression compared to the well-adjusted group. 2) Well-adjusted youth will be significantly more likely to display intentions to engage in non-violent behavior compared to aggressive-victims, and aggressors. 3) Well-adjusted youth will be significantly more likely to display beliefs against fighting, values about relationships, and values about right, wrong, and fairness compared to the other three groups. 4) Aggressive-victims will be significantly more likely to display hostile attribution bias compared to the other three groups. 5) Passive-victims will be significantly more likely to display internal causal attributions compared to the other three groups. Gender differences were also examined for each of these hypotheses.

A series of repeated measures logistic regressions were conducted to examine these hypotheses. Within each analysis, situation was a within-subjects factor given that every participant was administered all four situations in a counterbalanced order, and gender and profile membership, as determined by the latent profile analysis, were between-subjects factors. Each ATSS code was a dependent variable, and a separate logistic regression was conducted for each code. Further, simple linear contrasts were used to compare (a) the well-adjusted group to all other groups, (b) the aggressive-victims to all other groups, (c) the aggressors to all other groups, and (c) the passive-victims to all other groups. Main effects and interactions with gender, situation, and latent profile membership were examined.

Results

Psychometric Analyses

Preliminary analyses of the psychometric properties of the ATSS variables were conducted to determine the best way to score these data. Although, all youth were presented with five situations, the practice situation was used for the sole purpose of orienting youth to the procedure, and was therefore not included in the scoring. A number of scoring options were considered, including the use of segment-level versus situation-level data (e.g., number of segments in which the code was present for each situation). It was determined that it was most meaningful to know whether a given theme was evident within a given situation as a whole, rather than the specific segments in which it occurred. Once this was decided, additional scoring possibilities were considered, including the number of segments in which a theme was coded for each situation, or simply whether the theme was present or absent within the situation as a whole. It was decided that the number of times a theme was evident within the context of a situation was less relevant to the purpose of the study hypotheses. Thus, it was decided that variables reflecting the presence or absence of each code within each of the four situations reflected the most appropriate format to answer the stated hypotheses. Analyses of the internal consistency of each set of codes were also conducted to determine if there was sufficient consistency to warrant combining codes across situations. Typically, an alpha of .70 reflects acceptable internal consistency (Cortina, 1993). Table 5 lists the internal consistency coefficients for each scale. Based on the generally low levels of internal consistency for all codes, it was decided that the situation-level variables could not be combined into a single score for the current analyses.

Table 5

Reliability Coefficients reflecting consistency across situations for ATSS Codes

Variable	Alpha
Ok to fight in response to physical aggression	.43
Ok to fight in response to non-physical aggression	.34
Beliefs against fighting	.35
Values about Relationships	.19
Beliefs about Right, Wrong, and Fairness	.38
Image and Reputation	.25
Internal Causal Attributions	.15
External Causal Attributions	.39
Benign Intent Attributions	.14
Hostile Intent Attributions	.20
Behavioral Intentions for Nonviolent Behavior	.66
Behavioral Intentions for Physical Aggression	.62
Behavioral Intentions for Nonphysical Aggression	.66

Analyses of Social Information-processing Pattern Differences

A series of logistic regressions using the Generalized Estimating Equations (GEE) function in SPSS was conducted to examine the hypotheses regarding differences across latent classes on the social information-processing variables within the context of peer victimization situations. Logistic regression was selected as the best analytic choice because the dependent variables were categorical (i.e., presence or absence of a code within each situation). Separate analyses were conducted for each social information-processing variable (e.g., Behavioral Intentions for Physical Aggression) obtained from ATSS as the dependent variable. Between-subjects independent variables were gender and latent profile membership (i.e., aggressive-victims, aggressors, passive-victims, well-adjusted). The within-subjects independent variable was situation (i.e., verbal victimization, physical victimization,

relational victimization). This approach thus incorporated codes from each situation as a vector of scores rather than a composite. All independent variables were entered simultaneously in the model. Separate analyses were also conducted to examine situation by class interactions, and are discussed in a separate section. Table 6 displays the means and standard errors for all ATSS codes within each of the latent profile groups. The results of the logistic regression models are presented separately for each dependent variable. First, results are discussed as they relate to each hypothesis. Following this, findings related to gender differences are explained. Then, theme differences across situations are described. Finally, analyses of interactions between latent profile membership and situation are examined.

Logistic regressions examined the impact of latent profile membership on the likelihood that behavioral intentions for physical aggression, nonphysical aggression, and nonviolent behavior were elicited in order to test the stated hypotheses related to these codes. As hypothesized, the likelihood that an intention to engage in physical aggression was elicited differed across latent profiles. Compared to the well-adjusted group, aggressive-victims were 2.66 ($b = 0.98$, Wald $\chi^2(1) = 6.56$, $p = .01$) times more likely to display intentions to engage in physical aggression and aggressors were 2.27 ($b = 0.82$, Wald $\chi^2(1) = 7.24$, $p < .01$) times more likely to display this intention. Figure 5 displays mean differences across the latent profiles. These data support the hypothesis that aggressive-victims and aggressors are more likely to display intentions to engage in physical aggression compared to the well-adjusted group.

Table 6

Means and Standard Errors for ATSS Codes by Latent Profile Group

Variable	Aggressive-victims		Aggressors		Passive-victims		Well-adjusted	
	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.
Behavioral Intentions for Physical Aggression	.36 ^a	.08	.33 ^a	.05	.23 ^{ab}	.07	.18 ^b	.03
Behavioral Intentions for Nonphysical Aggression	.41 ^a	.07	.33 ^{ab}	.05	.26 ^b	.07	.27 ^{ab}	.03
Behavioral Intentions for Nonviolent Behavior	.88 ^a	.06	.84 ^a	.04	.84 ^a	.07	.93 ^b	.02
Ok to fight in response to physical aggression	.13 ^a	.05	.15 ^a	.04	.11 ^{ab}	.04	.08 ^b	.02
Ok to fight in response to non-physical aggression	.12 ^a	.04	.09 ^{ab}	.03	.09 ^{ab}	.04	.07 ^b	.02
Beliefs against fighting	.15 ^{ab}	.05	.13 ^a	.03	.21 ^b	.06	.17 ^{ab}	.03
Values about Relationships	.23 ^a	.09	.09 ^b	.03	.14 ^{ab}	.06	.13 ^b	.03
Beliefs about Right, Wrong, and Fairness	.19 ^a	.07	.15 ^{ab}	.03	.17 ^{ab}	.04	.14 ^b	.02
Hostile Intent Attributions	.17 ^a	.05	.15 ^a	.03	.16 ^a	.04	.13 ^a	.02
Internal Causal Attributions	.01 ^a	.01	.08 ^b	.02	.07 ^b	.03	.06 ^b	.02
Benign Intent Attributions	.08 ^a	.03	.07 ^{ab}	.02	.04 ^{ab}	.02	.05 ^b	.01
External Causal Attributions	.22 ^a	.05	.21 ^a	.03	.19 ^a	.07	.20 ^a	.03
Image and Reputation	.05 ^a	.032	.04 ^{ab}	.02	.07 ^a	.03	.02 ^b	.01

Note. Means represent proportions. Significant differences between means based on 95% confidence intervals are indicated with the use of superscripts; ^a, ^b, ^c. Means with the same subscripts are not significantly different.

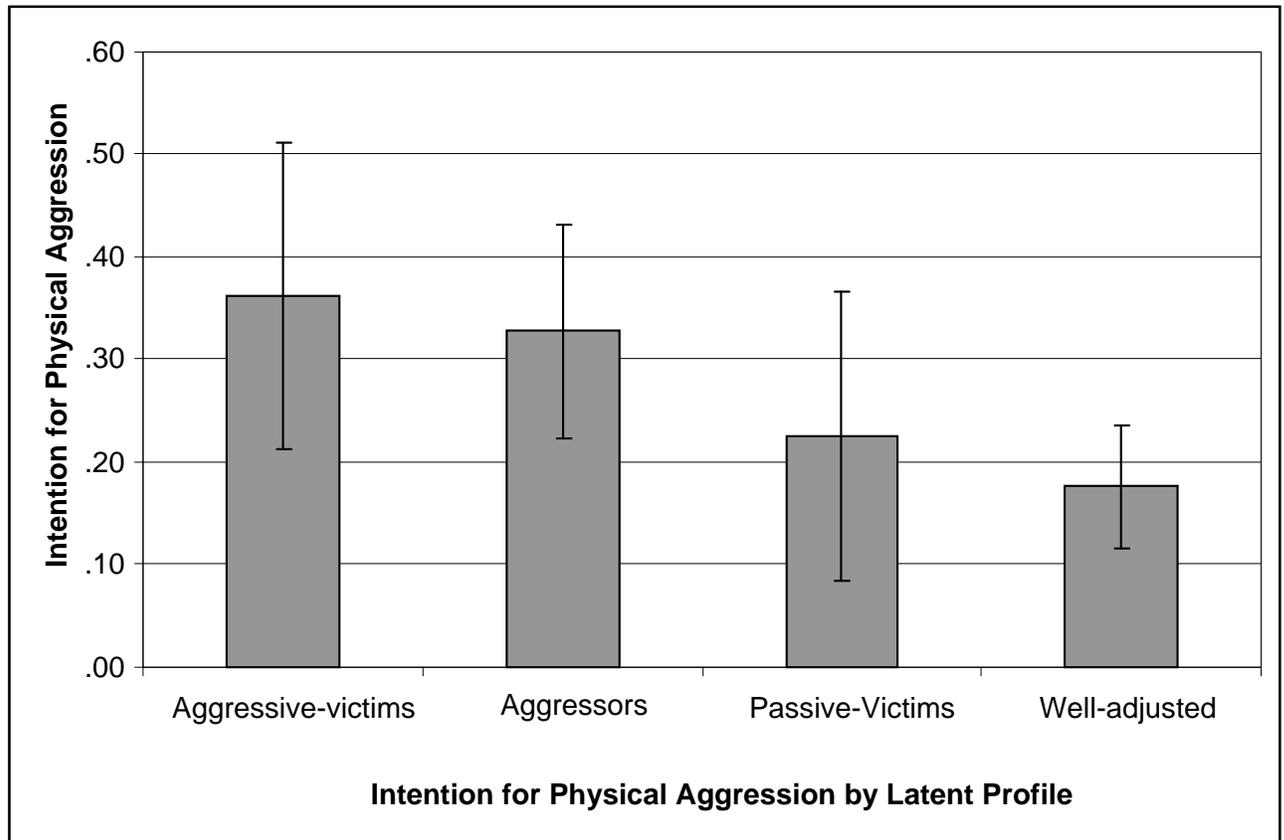


Figure 5. Adjusted means across latent profiles for ratings of behavioral intention for physical aggression.

In contrast, the hypothesis that aggressive-victims ($b = 0.64$, Wald $\chi^2(1) = 3.18$, $p = .07$) and aggressors ($b = 0.27$, Wald $\chi^2(1) = 0.94$, $p = .33$) would be more likely to display intentions to engage in nonphysical aggression compared to the well-adjusted group was not supported. Finally, the hypothesis that well-adjusted youth would be more likely to display intentions to engage in non-violent behavior across all four situations compared to aggressive-victims, and aggressors was partially supported. As hypothesized, aggressors were 0.43 times less likely ($b = -0.86$, Wald $\chi^2(1) = 4.96$, $p < .05$) to display intentions to engage in nonviolent behavior compared to well-adjusted youth. However, aggressive-victims ($b = -0.56$, Wald $\chi^2(1) =$

0.92, $p = .34$), and passive-victims ($b = -0.90$, Wald $\chi^2(1) = 2.43$, $p = .12$) were not less likely to report this intention compared to well-adjusted youth.

Logistic regressions were also used to examine the impact of latent profile membership on the likelihood that beliefs about fighting were elicited. Partial support was found for the hypothesis that aggressive-victims and aggressors would be more likely to display beliefs that it is ok to fight in response to physical aggression. As hypothesized, aggressors were 1.97 times more likely ($b = 0.67$, Wald $\chi^2(1) = 5.43$, $p < .05$) to display this belief compared to well-adjusted youth. However, aggressive-victims were not ($b = 0.50$, Wald $\chi^2(1) = 1.12$, $p = .29$) more likely to display this belief compared to well-adjusted youth. Figure 6 displays mean differences across the latent profiles. In contrast, the hypothesis that aggressive-victims ($b = 0.59$, Wald $\chi^2(1) = 1.58$, $p = .21$) and aggressors ($b = 0.36$, Wald $\chi^2(1) = 1.10$, $p = .31$) would be more likely to display beliefs that it is ok to fight in response to nonphysical aggression was not supported. Similarly, the hypothesis that well-adjusted youth would be more likely to display beliefs against fighting compared to aggressive-victims ($b = -0.10$, Wald $\chi^2(1) = 0.06$, $p = .81$), aggressors ($b = -0.30$, Wald $\chi^2(1) = 1.20$, $p = .27$), and passive-victims ($b = 0.31$, Wald $\chi^2(1) = 0.63$, $p = .43$) was not supported.

Logistic regression analyses were also conducted to examine the impact of latent profile membership on the likelihood that internalized values would be elicited. It was hypothesized that well-adjusted youth would be more likely to display values about relationships across all four situations compared to the other three groups. However, well-adjusted youth were not more likely to display these beliefs compared to aggressive-victims ($b = 0.67$, Wald $\chi^2(1) = 1.60$, $p = .21$), aggressors ($b = -0.41$, Wald $\chi^2(1) = 2.03$, $p < .15$), or

passive-victims ($b = 0.70$, Wald $\chi^2(1) = 0.02$, $p = .89$). Similarly, well-adjusted youth were not more likely to display values about right, wrong, and fairness compared to aggressive-victims ($b = 0.42$, Wald $\chi^2(1) = 0.84$, $p = .36$), aggressors ($b = 0.12$, Wald $\chi^2(1) = 0.15$, $p = .70$), or passive-victims ($b = 0.24$, Wald $\chi^2(1) = 0.47$, $p = .49$).

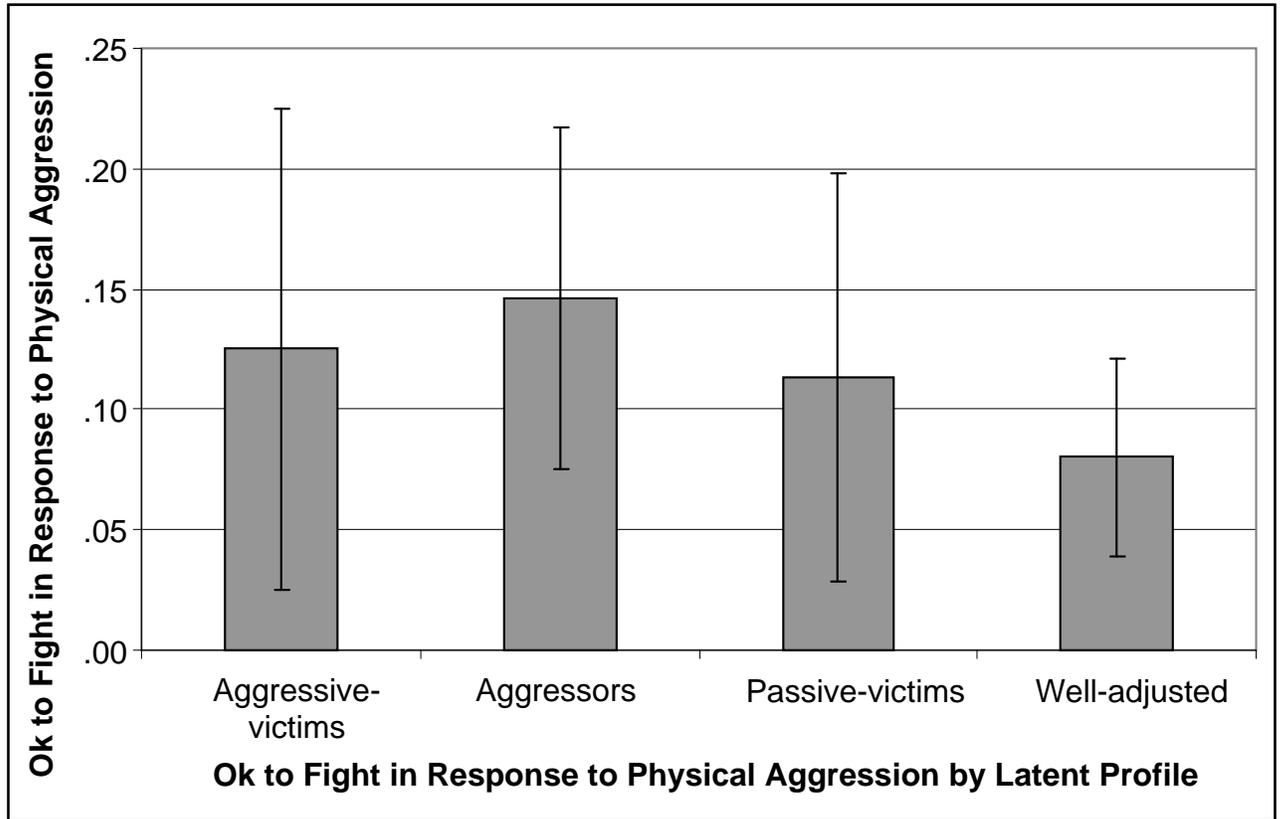


Figure 6. Adjusted means across latent profiles for ratings of Ok to fight in response to physical aggression.

The influence of latent profile membership on the likelihood that intent and causal attributions would be elicited was also examined with logistic regression. It was hypothesized that aggressive-victims would be more likely to display hostile attributions compared to the other three groups. However, no differences were found between aggressive-victims and aggressors ($b = -0.02$, Wald $\chi^2(1) = 0.07$, $p = .79$), passive-victims ($b = -0.01$,

Wald $\chi^2(1) = 0.02, p = .88$), or well-adjusted youth ($b = -0.03$, Wald $\chi^2(1) = 0.38, p = .54$).

In contrast, the hypothesis that passive-victims would be more likely to display internal causal attributions compared to the other three groups was partially supported. As hypothesized, passive-victims were more likely to display this attribution compared to aggressive-victims ($b = -0.06$, Wald $\chi^2(1) = 3.96, p < .05$). However, passive-victims were not more likely to display this attribution compared to aggressors ($b = 0.01$, Wald $\chi^2(1) = 0.60, p = .81$), or well-adjusted youth ($b = 0.00$, Wald $\chi^2(1) = 0.28, p = .87$). Figure 7 displays mean differences across the latent profiles.

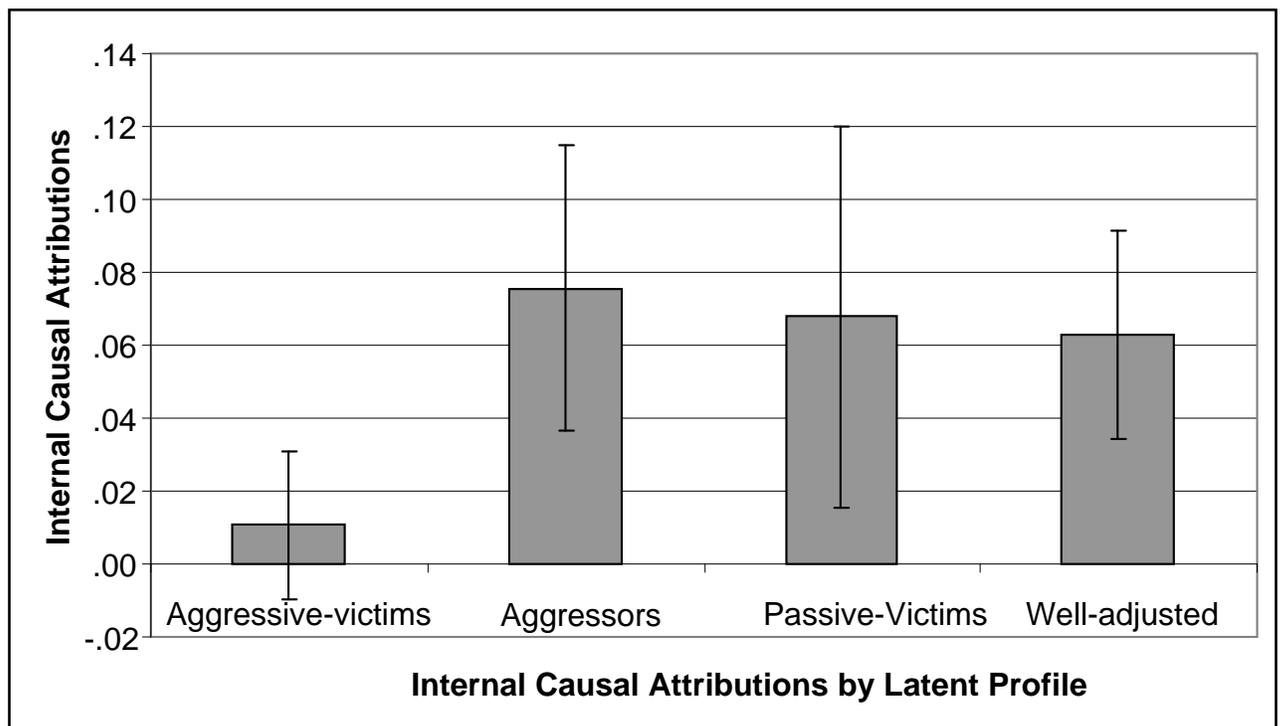


Figure 7. Adjusted means across latent profiles for ratings of Internal Causal Attributions.

Within the research base on social information-processing patterns, no studies could be found that examined the relations between peer victimization and youth's tendency to make benign intent attributions, external causal attributions, or cite beliefs about image and reputation as factors influencing their decision-making processes. Thus, no a priori

hypotheses were formed about how these variables would differ across the latent profiles. Logistic regression analyses revealed that aggressive-victims ($b = 0.59$, Wald $\chi^2(1) = 1.59$, $p = .21$), aggressors ($b = 0.33$, Wald $\chi^2(1) = 0.82$, $p = .36$), and passive-victims ($b = -0.23$, Wald $\chi^2(1) = 0.14$, $p = .71$) did not differ from well-adjusted youth in the likelihood with which benign intent attributions were elicited. Similarly, aggressive-victims ($b = 0.13$, Wald $\chi^2(1) = 0.13$, $p = .72$), aggressors ($b = 0.58$, Wald $\chi^2(1) = 0.54$, $p = .82$), and passive-victims ($b = -0.10$, Wald $\chi^2(1) = 0.04$, $p = .84$) did not differ from well-adjusted youth in the likelihood with which external causal attributions ($p = .97$) were elicited. However, the likelihood that values about image and reputation were elicited was influenced by latent profile membership, with passive-victims being 3.77 times more likely to report this value compared to well-adjusted youth ($b = 1.33$, Wald $\chi^2(1) = 6.23$, $p < .05$). In contrast, aggressive-victims ($b = 1.12$, Wald $\chi^2(1) = 3.10$, $p = .08$), and aggressors ($b = 0.76$, Wald $\chi^2(1) = 3.10$, $p = .08$) were not more likely to report this value compared to well-adjusted youth.

Gender Differences

Gender differences in the likelihood that a particular ATSS code was elicited were also examined. Several gender differences were found. More specifically, girls were 3.98 times more likely to report values about relationships compared to boys ($b = 1.38$, Wald $\chi^2(1) = 20.53$, $p < .001$). In addition, girls were 2.46 times more likely to report external causal attributions compared to boys ($b = 0.90$, Wald $\chi^2(1) = 15.88$, $p < .001$). Finally, girls were 1.70 times more likely to report beliefs against fighting ($b = 0.53$, Wald $\chi^2(1) = 4.44$, $p \leq .05$) compared to boys within physical victimization situations only. No other gender differences were found at $p < .05$.

Situation-level Differences

Table 7 displays the means and standard errors for all codes within each of the four situations. Logistic regression analyses revealed a number of significant differences in the likelihood that a particular code was elicited across the four different situations. These differences will be discussed by ATSS code categories.

The likelihood that intentions to engage in physical and nonphysical aggression, and nonviolent behavior were elicited differed across peer victimization situation. More specifically, intentions to engage in physical aggression were less likely to be displayed in verbal ($b = -2.29$, Wald $\chi^2(1) = 78.21$, $p < .001$) and relational victimization situations ($b = -2.88$, Wald $\chi^2(1) = 82.52$, $p < .001$) compared to physical victimization situations. In contrast, intentions to engage in nonphysical aggression were more likely to be displayed in the verbal victimization situation compared to the physical victimization situation ($b = 0.89$, Wald $\chi^2(1) = 21.51$, $p < .001$). Finally, intentions to engage in nonviolent behavior were more likely to arise in verbal ($b = 0.81$, Wald $\chi^2(1) = 7.24$, $p < .01$) and relational ($b = 0.60$, Wald $\chi^2(1) = 4.49$, $p < .05$) victimization situations compared to physical victimization situations. Further, these intentions were 1.84 times more likely to be elicited in a situation in which one person is trying to instigate a physical fight with another peer compared to a situation where a group is trying to instigate a physical fight between two peers ($b = 0.61$, Wald $\chi^2(1) = 5.41$, $p < .05$).

Beliefs about fighting were influenced by the type of situation presented. Specifically, the belief that it is ok to fight in response to physical aggression was less likely to arise in verbal ($b = -3.33$, Wald $\chi^2(1) = 50.86$, $p < .001$) and relational ($b = -4.28$, Wald $\chi^2(1) = 36.18$, $p < .001$) victimization situations compared to physical victimization situations.

Similarly, the belief that it is ok to fight in response to nonphysical aggression was less likely to occur in relational victimization ($b = -1.33$, Wald $\chi^2(1) = 9.55$, $p < .01$) situations compared to physical victimization situations. In addition, beliefs against fighting were also less likely to occur in verbal victimization ($b = -1.74$, Wald $\chi^2(1) = 41.10$, $p < .001$) and relational victimization ($b = -4.18$, Wald $\chi^2(1) = 32.87$, $p < .001$) situations compared to a physical victimization situation. Further, these beliefs were 1.69 times more likely to be elicited in a situation in which one person is trying to instigate a physical fight with another compared to a situation where a group is trying to instigate a physical fight between two peers ($b = 0.52$, Wald $\chi^2(1) = 7.03$, $p < .01$).

Type of victimization situation also significantly impacted the likelihood that internalized values would be elicited. Values about relationships were 4.65 times more likely to occur in verbal victimization situations ($b = 1.54$, Wald $\chi^2(1) = 5.26$, $p < .05$), and 305.19 times more likely to occur in a relational victimization ($b = 5.72$, Wald $\chi^2(1) = 76.48$, $p < .001$) situation compared to a physical victimization situation. These values were also 10.82 times more likely to be elicited in a situation in which one person is trying to instigate a physical fight with another peer compared to a situation where a group is trying to instigate a physical fight between two peers ($b = 2.38$, Wald $\chi^2(1) = 13.68$, $p < .001$). Figure 8 displays mean differences across type of victimization situation. In addition, values about right, wrong, and fairness were 14.15 times more likely to be elicited in verbal victimization situations compared to physical victimization

Table 7

Means and Standard Errors for ATSS Codes by Situation

Variable	Verbal Victimization Situation		Physical Victimization Situation ^d		Physical Victimization Situation ^e		Relational Victimization Situation	
	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.
Behavioral Intentions for Physical Aggression	.13 ^a	.03	.48 ^b	.05	.60 ^c	.04	.08 ^d	.02
Behavioral Intentions for Nonphysical Aggression	.46 ^c	.043	.32 ^a	.04	.26 ^{ab}	.04	.24 ^b	.04
Behavioral Intentions for Nonviolent Behavior	.91 ^a	.03	.89 ^a	.03	.81 ^b	.04	.89 ^a	.03
Ok to fight in response to physical aggression	.03 ^a	.01	.41 ^b	.05	.48 ^b	.05	.01 ^a	.01
Ok to fight in response to non-physical aggression	.10 ^a	.03	.10 ^a	.03	.15 ^a	.03	.04 ^b	.02
Beliefs against fighting	.12 ^a	.03	.56 ^b	.04	.40 ^c	.04	.01 ^d	.01
Values about Relationships	.07 ^a	.02	.14 ^b	.03	.01 ^c	.01	.82 ^d	.04
Beliefs about Right, Wrong, and Fairness	.53 ^a	.04	.13 ^b	.03	.07 ^c	.02	.09 ^{bc}	.02
Hostile Intent Attributions	.09 ^{ab}	.02	.55 ^c	.04	.06 ^a	.02	.12 ^b	.03
Internal Causal Attributions	.03 ^{ab}	.01	.05 ^a	.02	.02 ^b	.01	.14 ^c	.04
Benign Intent Attributions	.10 ^{ab}	.03	.12 ^b	.03	.01 ^c	.01	.06 ^a	.02
External Causal Attributions	.31 ^a	.04	.26 ^a	.04	.14 ^b	.03	.14 ^b	.03
Image and Reputation	.01 ^a	.01	.17 ^c	.04	.09 ^b	.03	.02 ^a	.01

Note. Means represent proportions. Significant differences between means based on 95% confidence intervals are indicated with the use of superscripts; ^a, ^b, ^c. Means with the same subscripts are not significantly different. ^d represents the situation in which one peer instigates a fight with another peer. ^e represents the situation where a group is trying to instigate a fight between two peers

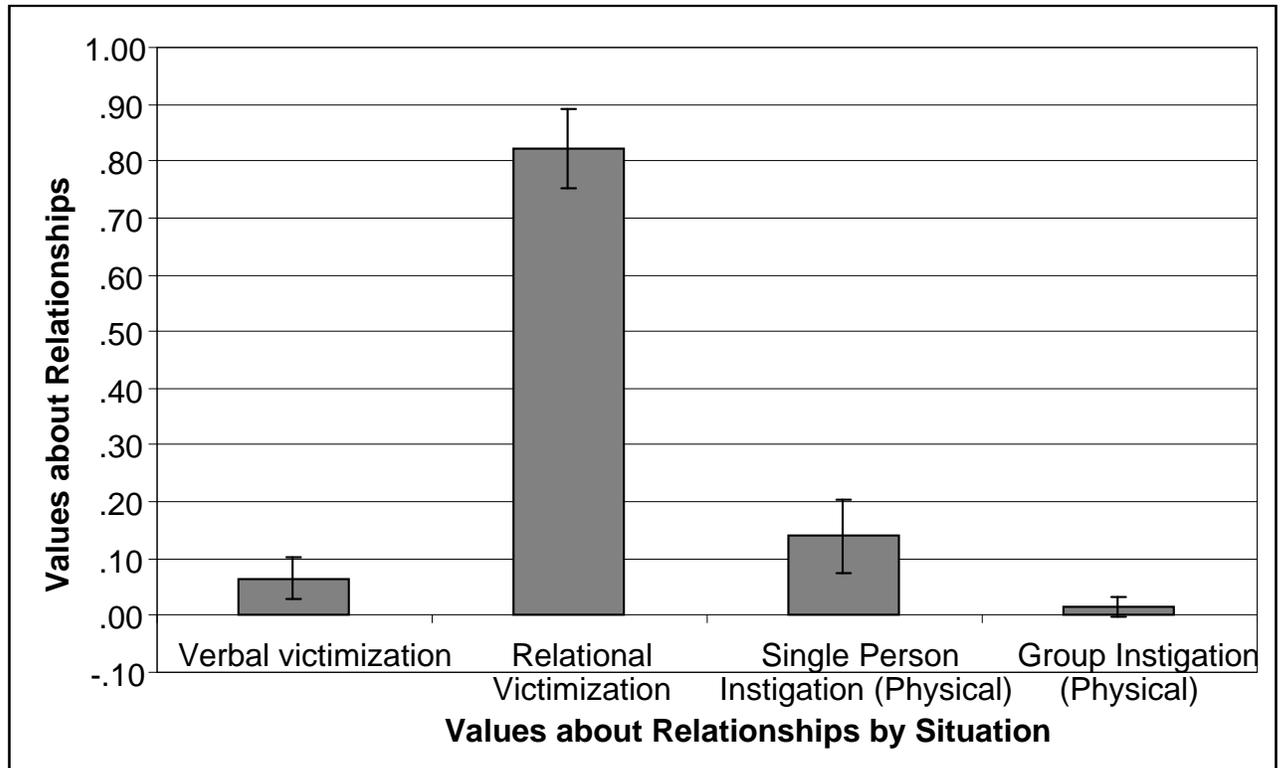


Figure 8. Adjusted means across situations for ratings of values about relationships.

situations ($b = 2.65$, Wald $\chi^2(1) = 63.90$, $p < .001$). Further, values about image and reputation were less likely to be reported in verbal ($b = -2.68$, Wald $\chi^2(1) = 6.41$, $p < .05$) and relational victimization ($b = -1.57$, Wald $\chi^2(1) = 5.47$, $p < .05$) situations compared to physical victimization situations. These values were also 1.98 times more likely to be elicited in a situation in which one person is trying to instigate a physical fight with another peer compared to a situation where a group is trying to instigate a physical fight between two peers ($b = .68$, Wald $\chi^2(1) = 4.49$, $p < .05$).

Intent and causal attributions were also influenced by type of peer victimization situation. More specifically, hostile intent attributions were less likely to occur in a relational victimization situation ($b = 0.85$, Wald $\chi^2(1) = 4.45$, $p < .05$) compared to a physical victimization situation. Hostile intent attributions were also 20.79 times more likely to be

elicited in a situation in which one person is trying to instigate a physical fight with another compared to a situation where a group is trying to instigate a physical fight between two peers ($b = 3.03$, Wald $\chi^2(1) = 63.06$, $p < .001$). In contrast, benign intent attributions were 9.33 times more likely to occur in a verbal victimization situation ($b = 2.23$, Wald $\chi^2(1) = 8.52$, $p < .01$) and 5.71 times more likely to occur in a relational victimization situation ($b = 1.74$, Wald $\chi^2(1) = 4.91$, $p < .05$) compared to a physical victimization situation. In addition, these attributions were 11.73 times more likely to be elicited in a situation in which one person is trying to instigate a physical fight with another peer compared to a situation where a group is trying to instigate a physical fight between two peers ($b = 2.46$, Wald $\chi^2(1) = 10.52$, $p = .001$). Causal attributions were also impacted by situation type. Specifically, internal causal attributions were more likely to occur in relational victimization situations compared to physical victimization ($b = 2.26$, Wald $\chi^2(1) = 17.70$, $p < .001$) and verbal victimization situations (Wald $\chi^2(1) = 9.93$, $p < .01$). Further, external causal attributions were 2.79 times more likely to arise in verbal victimization situations ($b = 1.03$, Wald $\chi^2(1) = 17.36$, $p < .001$), and 2.18 times more likely to arise in a situation in which one student is trying to instigate a physical fight with another peer ($b = 0.78$, Wald $\chi^2(1) = 7.39$, $p < .01$) compared to a situation where a group is trying to instigate a physical fight between two peers.

Situation-Specific Latent Profile Analyses

Observed differences in the odds that youth would report specific beliefs and intentions within the context of physical victimization situations compared to non-physical (i.e., relational, verbal) victimization situations, suggested the possibility that differences between latent profile membership might have varied across these distinct types of peer

victimization situations. As mentioned previously, due to limitations of the Generalized Estimating Equations function in SPSS, interactions could not be examined within the context of the same model as the main effect analyses. Thus, two separate analyses were run for each code, one which examined only physical victimization situations, and one that was restricted to nonphysical victimization situations (i.e., verbal and relational victimization). The purpose of these analyses was to examine the possibility of latent profile differences within the context of different types of situations. This section presents findings from these analyses.

Results revealed several situation-specific latent profile membership differences within the behavioral intentions domain. It was hypothesized that aggressive-victims and aggressors would be more likely to display intentions to engage in physical and non-physical aggression compared to well-adjusted youth. As hypothesized, compared to well-adjusted youth, aggressive-victims were 2.82 times ($b = 1.04$, Wald $\chi^2(1) = 5.90$, $p < .05$) more likely and aggressors were 2.37 times ($b = .863$, Wald $\chi^2(1) = 7.03$, $p < .01$) more likely to display this intention in physical victimization situations only. Thus, these findings are consistent with the initial hypothesis. In contrast, compared to well-adjusted youth, aggressive-victims ($b = 0.56$, Wald $\chi^2(1) = 1.81$, $p = .18$), and aggressors ($b = 0.33$, Wald $\chi^2(1) = 0.91$, $p = .34$) were not more likely to display intentions to engage in nonphysical aggression within the context of physical victimization situations. Similarly, compared to well-adjusted youth aggressive-victims ($b = 0.71$, Wald $\chi^2(1) = 2.63$, $p = .11$), and aggressors ($b = 0.23$, Wald $\chi^2(1) = 0.52$, $p = .47$) were not more likely to display intentions to engage in nonphysical aggression within the context of nonphysical victimization situations. It was also hypothesized that well-adjusted youth would be more likely to report intentions to engage in

non-violent behavior compared to aggressive-victims, and aggressors. Consistent with this hypothesis, well-adjusted youth were more likely to report these intentions compared to two of the three other profile groups. However, these findings differed by type of peer victimization situation. In particular, compared to well-adjusted youth, aggressors were 0.43 times less likely to report intentions to behave nonviolently ($b = -0.85$, Wald $\chi^2(1) = 4.04$, $p < .05$) in physical victimization situations whereas passive-victims were 0.21 times less likely to report these intentions ($b = -1.55$, Wald $\chi^2(1) = 4.83$, $p < .05$) in nonphysical victimization situations.

Several situation-specific latent profile membership differences were also identified within the beliefs about fighting domain. It was hypothesized that aggressive-victims and aggressors would be more likely to display beliefs that it is ok to fight in response to physical and nonphysical aggression. Partial support was found for this hypothesis. In particular, compared to well-adjusted youth, aggressors were 2.12 times more likely ($b = 0.75$, Wald $\chi^2(1) = 6.68$, $p = .01$) to report the belief that it is ok to fight in response to physical aggression within physical victimization situations only. However, aggressive-victims ($b = 0.51$, Wald $\chi^2(1) = 1.24$, $p = .27$) were not more likely to report this belief compared to their well-adjusted counterparts in physical victimization situations. Compared to well-adjusted youth, aggressors were 2.67 times more likely ($b = 0.98$, Wald $\chi^2(1) = 4.29$, $p < .05$) to report beliefs that it is ok to fight in response to nonphysical aggression within the context of nonphysical victimization situations only. However, aggressive-victims ($b = 0.90$, Wald $\chi^2(1) = 1.78$, $p = .18$) were not more likely to report this belief in nonphysical victimization situations. Notably, the finding related to beliefs that it is ok to fight in response to nonphysical aggression represents a deviation from the main effect analyses, which did not identify any

latent profile differences. Finally, it was hypothesized that well-adjusted youth would be more likely to display beliefs against fighting compared to the other three profile groups. However, aggressive-victims ($b = -0.09$, Wald $\chi^2(1) = 0.10$, $p = .83$), aggressors ($b = -0.33$, Wald $\chi^2(1) = 1.47$, $p = .23$), and passive-victims ($b = 0.40$, Wald $\chi^2(1) = 0.80$, $p = .37$) were not less likely than well-adjusted youth to report these beliefs in physical victimization situations. Similarly, aggressive-victims ($b = -0.09$, Wald $\chi^2(1) = 0.01$, $p = .92$), aggressors ($b = -0.12$, Wald $\chi^2(1) = 0.04$, $p = .84$), and passive-victims ($b = -0.02$, Wald $\chi^2(1) = 0.00$, $p = .99$) were not less likely than well-adjusted youth to report these beliefs in nonphysical victimization situations.

Several situation-specific latent profile membership differences within the internalized values domain were found. It was hypothesized that well-adjusted youth would be more likely to report values about relationships, and values about right, wrong, and fairness compared to the other three groups. Notably, no support was found for either of these hypotheses within the main effect analyses. The likelihood that values about relationships were elicited was impacted by latent profile membership within the context of physical victimization situations only. However, the pattern of findings was contrary to the stated hypothesis. More specifically, aggressive-victims were 3.10 times more likely to display these values ($b = 1.12$, Wald $\chi^2(1) = 4.25$, $p < .05$), and aggressors ($b = -0.54$, Wald $\chi^2(1) = 1.03$, $p = .31$) and passive-victims ($b = 0.22$, Wald $\chi^2(1) = 0.10$, $p = .76$) were not less likely to display these values compared to well-adjusted youth. Similarly, the likelihood that values about right, wrong, and fairness were elicited was influenced by latent profile membership within the context of physical victimization situations only. However, the pattern of these findings also ran contrary to the stated hypothesis, with aggressive-victims

being 3.91 times more likely to display values about right, wrong, and fairness ($b = 1.36$, Wald $\chi^2(1) = 5.02$, $p < .05$) compared to well-adjusted youth. In contrast, neither aggressors ($b = 0.38$, Wald $\chi^2(1) = 0.67$, $p = .42$), nor passive-victims ($b = -0.11$, Wald $\chi^2(1) = 0.02$, $p = .89$) were less likely to report values about right, wrong, and fairness compared to well-adjusted youth. As previously noted, no a priori hypotheses were proposed for values about image and reputation. Results showed that the likelihood that these values were elicited was influenced by latent profile membership within the context of physical victimization situations only. Specifically, compared to well-adjusted youth, aggressive-victims were 4.45 times more likely ($b = 1.49$, Wald $\chi^2(1) = 4.95$, $p < .05$), aggressors were 3.10 times more likely ($b = 1.12$, Wald $\chi^2(1) = 5.97$, $p < .05$), and passive-victims were 5.60 times more likely ($b = 1.72$, Wald $\chi^2(1) = 9.49$, $p < .01$) to report values about image and reputation within physical victimization situations.

Aggressive-victims were hypothesized to be more likely to display hostile intent attributions compared to the other three groups. Results indicated that aggressive-victims were not more likely to report hostile intent attributions compared to aggressors ($b = -0.13$, Wald $\chi^2(1) = 1.57$, $p = .21$), passive-victims ($b = 0.02$, Wald $\chi^2(1) = 0.03$, $p = .87$), or well-adjusted youth ($b = -0.12$, Wald $\chi^2(1) = 1.30$, $p = .26$) within physical victimization situations. Similarly, aggressive-victims were not more likely to report hostile intent attributions compared to aggressors ($b = 0.08$, Wald $\chi^2(1) = 2.12$, $p = .15$), passive-victims ($b = -0.03$, Wald $\chi^2(1) = 0.30$, $p = .58$), or well-adjusted youth ($b = 0.03$, Wald $\chi^2(1) = 0.40$, $p = .53$) within nonphysical victimization situations. It was also hypothesized that passive-victims would be more likely to report internal causal attributions compared to the other three groups. Although support was found for this hypothesis in the main effect analyses, passive-

victims were not more likely than aggressive-victims ($b = -0.01$, Wald $\chi^2(1) = 0.01$, $p = .99$), aggressors ($b = -0.11$, Wald $\chi^2(1) = 0.02$, $p = .89$), or well-adjusted youth ($b = -0.02$, Wald $\chi^2(1) = 0.00$, $p = .99$) to report internal causal attributions within physical victimization situations. Similarly, passive-victims were not more likely than aggressive-victims ($b = -0.09$, Wald $\chi^2(1) = 2.47$, $p = .12$), aggressors ($b = -0.03$, Wald $\chi^2(1) = 0.18$, $p = .68$), or well-adjusted youth ($b = -0.01$, Wald $\chi^2(1) = 0.05$, $p = .83$) to report internal causal attributions within nonphysical victimization situations.

As noted earlier, no a priori hypotheses were made for external causal attributions or benign intent attributions. Logistic regressions revealed that compared to well-adjusted youth, aggressive-victims ($b = 0.20$, Wald $\chi^2(1) = 0.20$, $p = .66$), aggressors ($b = -0.18$, Wald $\chi^2(1) = 0.36$, $p = .55$), and passive-victims ($b = -0.33$, Wald $\chi^2(1) = 0.42$, $p = .52$) were not more or less likely to report external causal attributions within physical victimization situations. Similarly, within nonphysical victimization situations well-adjusted youth were not more or less likely than aggressive-victims ($b = 0.05$, Wald $\chi^2(1) = 0.01$, $p = .93$), aggressors ($b = 0.29$, Wald $\chi^2(1) = 0.86$, $p = .36$), and passive-victims ($b = 0.12$, Wald $\chi^2(1) = 0.04$, $p = .85$) to report external causal attributions. Compared to well-adjusted youth, aggressive-victims ($b = 0.70$, Wald $\chi^2(1) = 0.97$, $p = .33$), aggressors ($b = 0.63$, Wald $\chi^2(1) = 1.70$, $p = .19$), and passive-victims ($b = -0.46$, Wald $\chi^2(1) = 0.17$, $p = .68$) were not more or less likely to report benign intent attributions within physical victimization situations. Similarly, within nonphysical victimization situations well-adjusted youth were not more or less likely than aggressive-victims ($b = 0.52$, Wald $\chi^2(1) = 0.81$, $p = .37$), aggressors ($b = 0.07$, Wald $\chi^2(1) = 0.02$, $p = .88$), and passive-victims ($b = -0.97$, Wald $\chi^2(1) = 0.02$, $p = .90$) to report benign intent attributions.

In general, latent profile membership differences were more likely to arise within the context of physical victimization situations compared to nonphysical victimization situations. In addition, these differences were largely consistent with main effect analyses. However, there were several notable cases in which situation-specific latent profile differences were identified, but latent profile membership main effects had not previously been found. More specifically, latent profile membership differences were found for values about relationships, and values about right, wrong, and fairness within physical victimization situations. In addition, more pronounced latent profile differences were found for values about image and reputation within physical victimization situations compared to both types of situations combined. Further, latent profile differences were found for the belief that it is ok to fight in response to nonphysical aggression within the context of nonphysical victimization situations. Finally, main effects for latent profile membership on internal causal attributions were previously identified. However, situation-specific latent profile differences were not found.

Discussion

The purpose of this study was to examine the social-information processing patterns of subgroups of adolescents, defined by their reports on measures of adjustment, within the context of peer victimization situations. This study involved two phases. First, latent profile analyses were conducted using self-report measures to identify distinct clusters of youth who differed in their level of adjustment. It was hypothesized that the findings would replicate the four adjustment clusters identified in previous work (Sullivan & Farrell, 2008) with the same population, that included well-adjusted youth, aggressive-victims, passive-victims, and neglected youth. Three of the four clusters (i.e., well-adjusted youth, aggressive-victims, passive-victims) were replicated in the current sample. However, the current study also identified a fourth group of purely aggressive youth that was not previously identified by Sullivan and Farrell (2008), and did not replicate the previously identified neglected group. During the second phase of this study, a more sensitive measure of social information-processing patterns, ATSS, was developed and administered to a subsample of middle school students who had previously completed self-report measures of adjustment. ATSS interviews were then coded, and this data was used to examine differences in social information-processing patterns across the previously identified adjustment clusters of youth. Support was found for four of the ten hypotheses associated with latent profile differences in social information-processing patterns. These hypotheses will be discussed in detail in subsequent paragraphs.

Previous findings provide ample support for the four latent profile groups of middle school students identified in the current study (e.g., Haynie et al., 2001; Schwartz et al., 2001; Unnever, 2005). Specifically, Haynie and colleagues (2001) used self-report measures

of the frequency with which middle school youth bullied and experienced overt victimization in the past year, and identified four groups: Comparisons, Bullies, Victims, and Bully-Victims. Differences across these groups were generally consistent with the findings of the current study. Bully-victims reported the lowest level of self-control and social competence, and a high level of depressive symptoms whereas the comparison group reported low levels of depression, and the highest levels of social competence and self-control. Similarly, Unnever (2005) used self-report measures of bullying, victimization, self-control, reactive aggression, and social bonds, and identified similar groups to those in this study: aggressive-victims, pure victims, and pure bullies. One possible explanation for the differences between the current study and the work of Sullivan and Farrell (2008) is absence of a measure of social acceptance, which would assess youth's perceptions of their social position (e.g., neglected youth reported poor social acceptance). The use of measures of social skills and anger dysregulated expression were also likely contributors to the identification of slightly different clusters. In particular, measuring social skill likely contributed to increased differentiation between youth who regularly employ aggression in response to peer interactions compared to youth who exert self-control, and calmly address conflict (e.g., by talking it out, walking away). In addition, it seems likely that the use of a measure of dysregulated anger expression more effectively differentiated between youth who were previously labeled as aggressors, aggressive-victims, or passive-victims based solely on reported level of aggression and victimization.

As hypothesized, aggressive-victims and aggressors were more likely to display intentions to engage in physical aggression compared to well-adjusted youth. These findings are consistent with previous studies, which suggest that level of aggression influences

response selection and evaluation processes (Crick & Dodge, 1994). In particular, socially rejected youth (i.e., aggressive-victims) possess limited response repertoires from which to select a particular response, and tend to select aggressive responses. In addition, aggressive youth access aggressive responses more readily compared to their peers (Crick & Dodge, 1994), and aggressive and rejected youth are known to evaluate aggressive responses more positively compared to their well-adjusted peers (Crick & Ladd, 1990). These findings are consistent with a previous study using ATSS that indicated that aggressive youth were more likely to report aggressive intent compared to their nonaggressive peers (DiLiberto et al., 2002). It is worth noting that aggressive-victims and aggressors likely differ in their underlying motivations for intending to respond with aggression. More specifically, aggressors are more likely to have aggressive intentions, and may be proactively aggressive or engage in aggression deliberately as a means of achieving a desired goal (i.e., instrumental aggression). In contrast, aggressive-victims may be more reactively aggressive meaning that their use of aggression arises as an angry defensive response to peer provocation (Crick & Dodge, 1996). Despite these differences, the end-result of selecting an aggressive response is often the same.

Partial support was also found for the hypothesis that well-adjusted youth were more likely to report intentions to engage in nonviolent behavior compared to aggressors and aggressive-victims. As predicted, well-adjusted youth were more likely to report intentions to engage in nonviolent behavior compared to aggressors. Although the trend of the data also suggested that well-adjusted youth were more likely to report this belief compared to aggressive-victims, this relation did not achieve statistical significance. These findings are consistent with previous research suggesting that prosocial youth may more positively

evaluate the use of prosocial responses and more negatively evaluate the use of relationally and physically aggressive responses to peer conflict compared to their more aggressive peers (Nelson & Crick, 1999). The absence of a statistically significant difference between aggressive-victims and well-adjusted youth's intentions to engage in nonviolent behavior was unexpected. These findings are inconsistent with the notion that aggressive-victims tend to experience significant emotion dysregulation during peer conflict situations, and have difficulty controlling these emotions in order to adequately consider a range of responses in the moment, resulting in responding impulsively (i.e., with aggressive retaliation) (Lemerise & Arsenio, 2000). One possible explanation for the absence of this known difference is that aggressive-victims may not have been emotionally activated during exposure to the ATSS, and thus were more able to produce socially appropriate responses to the scripts. Another possible explanation is that a difference exists, but the overall small sample size, and the particularly small sample size of the aggressive-victim subgroup made it difficult to identify an effect when one was present.

Partial support was found for the hypothesis that aggressors and aggressive-victims would be more likely to display beliefs that it is ok to fight in response to physical aggression compared to well-adjusted youth. As predicted, aggressors were more likely to display these beliefs. However, aggressive-victims were not more likely than their well-adjusted peers to display these beliefs. These findings are consistent with previous research that suggests that youth who believe that aggression is an acceptable response are more likely to engage in this behavior (Huesmann & Guerra, 1997). In contrast, it is notable that aggressive-victims were not more likely to report these beliefs compared to their well-adjusted peers as some past research suggests that having a history of witnessing or being the victim of physical violence

(e.g., aggressive-victims) is significantly associated with holding beliefs that support aggression (Shahinfar, Kupersmidt, & Matza, 2001). It is also possible that given the reactive nature of aggressive-victims' behavior, their decisions to engage in aggression are primarily driven by poor impulse/emotional control (e.g., Dodge & Coie, 1987; Toblin et al., 2005), and as such, they are less likely to be driven by internalized beliefs supporting aggression.

As hypothesized, passive-victims were more likely to display internal causal attributions compared to aggressive-victims. However, they were not more likely to display these attributions compared to aggressors and well-adjusted youth. Thus, the hypothesis was only partially supported. These findings are inconsistent with past research which has found that passive-victims are more likely to make characterological self-blame attributions compared to aggressors and socially-adjusted youth and equally as likely to make these attributions as aggressive-victims within the context of simulated peer victimization scenarios (Graham et al., 2006; Graham & Juvonen, 1998). One possible explanation for this difference is that the samples used in previous studies were more ethnically diverse than in the current study. An alternate explanation may be that making internal causal attributions is not solely a sign of maladjustment. In fact, socially well-adjusted youth are known to be more likely to make internal causal attributions for positive social outcomes and external attributions for negative outcomes compared to their maladjusted peers (Crick & Dodge, 1994). Given the limited sample size of this study, and the limited frequency with which this code arose, it was not possible to separate adaptive versus maladaptive internal causal attributions in order to examine these possible differences.

Six of the ten hypotheses were not supported. More specifically, it was hypothesized that aggressive-victims and aggressors would be more likely to display intentions to engage

in nonphysical aggression and beliefs that it is ok to fight in response to nonphysical aggression compared to their well-adjusted peers. In addition, aggressive-victims were hypothesized to be more likely to display hostile intent attributions compared to the other three groups. Further, well-adjusted youth were hypothesized to be more likely to display beliefs against fighting, values about relationships, and values about right, wrong, and fairness compared to the other three groups. However, no support was found for these hypotheses. The absence of these findings is inconsistent with previous research.

Past research suggests that aggressive-victims and aggressors differ from other groups of youth in their social information-processing patterns. For instance, proactively-aggressive youth (i.e., aggressors) are known to evaluate verbally aggressive acts more positively compared to their peers (Crick & Dodge, 1996). There is also evidence that beliefs supporting the use of a particular form of aggression (e.g., relational aggression) are significantly associated with engaging in that form of aggression (Werner & Nixon, 2005). In addition, aggressive and aggressive-rejected (i.e., aggressive-victims) youth are more likely to attribute hostile intent to their peers (e.g., Dodge & Tomlin, 1987; Quiggle et al., 1992), and being reactively aggressive (i.e., aggressive-victims) is specifically associated with exhibiting hostile intent attributions (Crick & Dodge, 1996; Dodge et al., 1997). Notably, these studies differed from the current work in a number of ways. For example, unlike the current study, previous work primarily targeted relations between normative beliefs about physical, and relational aggression, and engagement in physical and relational aggression, but excluded beliefs about and engagement in verbal aggression. On the other hand, other previous work examined normative beliefs about verbal aggression (Huesmann & Guerra, 1997), but did not pinpoint the specific relation between beliefs about verbal aggression and

aggressive behavior. Thus, this study is novel in its exploration of specific beliefs about and intentions to engage in nonphysical aggression. The current study also employed a potentially less ambiguous approach to exploring intent attributions (e.g., providing more scripted details about the peer's actions), that may have limited the chances that youth would ascribe hostile intent to these imaginary peers, thus making reports of hostile intent attributions less likely.

There is limited previous work to support hypotheses related to well-adjusted youth. More specifically, few studies have specifically examined beliefs about aggression in connection with well-adjusted youth. However, previous work does suggest that aggressive youth hold beliefs supporting the use of aggression (Huesmann & Guerra, 1997). Thus, it can be inferred that non-aggressive youth would be more likely to hold beliefs against the use of fighting. Previous work has also examined relational schemas among a sample of Finnish adolescents, and found evidence that a secure group (e.g., well-adjusted) of youth held positive views of the self and others whereas the troubled group reported negative self and other views (Salmivalli et al., 2005). Given these findings, it was assumed that well-adjusted youth in the current study would be more likely to report values about relationships. However, a major difference between the Salmivalli et al. (2005) study and the current study was their examination of the positive versus negative valence of values related to peers and relationships. In contrast, the current work simply identified the presence or absence of a value about friendship. However, it is notable that the majority of values about relationships that arose in the current study reflected things that friends should do (i.e., positive peer views). Further, no published studies could be found that specifically examined values about right, wrong, and fairness within the context of peer victimization. However, previous work

on moral reasoning and aggression suggested that increased moral disengagement, defined as creating a gap between one's idea of moral or "right" behavior and one's real life behavior, is associated with increased engagement in verbal and physical aggression (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996). Additionally, bullies or purely aggressive youth have shown higher levels of moral disengagement compared to their victimized and uninvolved counterparts (Gini, 2006). Given these findings, differences in aggressors and well-adjusted youth's values about right, wrong, and fairness should be expected. Taken together, the absence of findings from the current work and the limited previous findings highlight the need to better understand the beliefs and values of well-adjusted youth.

Although the current work failed to support the majority of the main effect hypotheses, it provided important information related to situation-level differences and situation-specific latent profile differences in the likelihood that an aggression-related theme was reported. Not surprisingly, intentions to engage in physical aggression were more likely to arise in physical victimization situations whereas intentions to engage in nonphysical aggression were more likely to arise in nonphysical (i.e., verbal and relational) victimization situations. Related to this, aggressive youth (i.e., aggressors, aggressive-victims) were more likely to report intentions to engage in physical aggression within physical victimization scenarios compared to well-adjusted youth. Further, situation-specific latent profile differences revealed that aggressors were more likely to report beliefs that it is ok to fight in response to physical aggression in physical victimization situations and beliefs that it is ok to fight in response to nonphysical aggression in nonphysical victimization situations. Given the provocative and distressing nature of physical aggression for aggressive-victims, it is not surprising that these reactively aggressive youth would report intentions to use aggression

when confronted with physical victimization. In fact, there is empirical support for the use of externalizing behaviors as a means of coping with physical victimization, particularly among males (Kochenderfer-Ladd & Skinner, 2002). In addition, the notion that aggressors' beliefs supporting aggression would be more frequently activated by physical victimization situations is consistent with previous work on the strong presence of beliefs supporting aggression for youth who use this type of behavior for instrumental gain (i.e., bullies/aggressors) (Toblin et al., 2005).

This study also provided novel information related to situation-level and situation-specific latent profile differences within the domain of internalized prosocial values. Specifically, values about relationships were more likely to arise in relational victimization situations and values about right, wrong, and fairness were more likely to arise in verbal victimization situations. In addition, situation-specific latent profile analyses revealed that aggressive-victims were significantly more likely to report both types of values compared to well-adjusted youth within physical victimization situations only. It is not surprising that values about relationships were elicited during relational victimization situations in which a youth's relationship with a peer is directly threatened by the peer's un-friend-like behaviors (e.g., talking behind one's back). Similarly, many youth are known to hold beliefs that it is wrong to talk about someone's family or to say mean things to another person (e.g., Farrell et al., 2008), thus it is not surprising that beliefs related to fairness would arise in connection with verbal victimization situations. However, the fact that aggressive-victims would display these values more readily compared to well-adjusted youth given that well-adjusted youth are known to be more morally competent than aggressive-victims (e.g., Gasser & Keller, 2009) was unanticipated. One possible explanation for this finding may be that aggressive-victims'

feelings of anger due to being the target of physical aggression spurred their attempts to justify why these acts were wrong without solely attributing blame to themselves.

Exploratory analyses of other themes also yielded interesting findings. More specifically, values about image and reputation were more likely to be reported by passive-victims compared to well-adjusted youth across all types of situations. In addition, aggressive-victims, passive-victims, and aggressors were more likely to report these values within physical victimization situations compared to well-adjusted youth. These values were also more likely, in general, to be cited in physical victimization situations compared to verbal and relational victimization situations. Previous research provides support for the relation between values supporting a tough or nonconforming image and aggressive behavior (Carroll, Houghton, Hattie, & Durkin, 1999; Farrell et al., in press). In fact, adolescents, in general, report a desire to maintain a tough image as a reason for behaving aggressively in response to peer provocation situations (Farrell et al., in press). Research suggests that bullies or aggressors are often labeled as popular via peer nominations and social network analyses whereas aggressive-victims tend to be identified as socially marginalized or unaccepted (Estell, Farmar, & Cairns, 2007). Given their known social marginalization, it is not expected that these youth would cite values about image and reputation as guiding forces for their behavior in physical victimization situations. One possibility is that given the social skill deficits of this aggressive-victimized subgroup, they are unaware that their aggressive behaviors are ineffective and contributing further to their victimization and poor peer acceptance and not to increased popularity. Notably, prior to the current work, no research had examined the differences in these values among subgroups of youth (i.e., aggressive-victims), or possible situation-specific differences in these beliefs.

Other exploratory analyses revealed that there were no latent profile differences in the likelihood that external causal attributions and benign intent attributions were displayed by youth. Previous research found that prosocial youth were more likely to report benign intent attributions compared to their maladjusted peers within the context of relational and instrumental peer provocation scenarios (Nelson & Crick, 1999), which suggests that latent profile differences in benign intent attributions should have emerged. Similarly, normative youth were more likely to attribute positive outcomes to internal factors (i.e., internal causal attributions) such as ability and effort compared to negative outcomes (Whitehead, Anderson, & Mitchell, 1987), suggesting that maladjusted youth would be less likely to attribute victimization experiences to external factors. Despite the absence of latent profile differences, situation-level analyses revealed that benign intent and external causal attributions were more likely to be reported in verbal victimization situations compared to physical victimization situations. Benign intent attributions were also more likely to be reported in relational victimization situations compared to physical victimization situations. No published studies could be found that examined situation-level differences in youths' displays of these types of information-processing patterns. Thus, these findings represent a positive contribution to the literature base. The limited research on these factors highlights the need to better understand how external causal and benign intent attributions are impacted by adjustment and exposure to peer victimization experiences.

This study reflects the first attempt to use the ATSS paradigm to understand how different clusters of youth process information when exposed to peer victimization situations. As expected, this method led to youth discussing their thoughts and feelings related to peer victimization situations. As a result, important information was gathered related to situation-

specific responding. In particular, this study highlights how different types of peer victimization situations elicit distinct beliefs (e.g., relational victimization elicits values about relationships) and social information-processing patterns (e.g., benign intent attributions are more likely to arise in nonphysical victimization situations). Prior to this study, this level of information related to the distinct forms of peer victimization was not available. In addition, it provides useful information about youths' behavioral intentions in these types of scenarios in as close to real-time as is possible. Thus, this measure addresses a known limitation of semi-structured interviews and vignette-based self-report measures of social information-processing. The current study also confirmed several known social information-processing biases among aggressive and victimized youth. More specifically, further evidence of aggressive youths' beliefs supporting aggression, as well as their tendency to select and enact aggressive responses instead of nonviolent responses was provided. This study also provided support for previous research on the social information-processing patterns of victims of aggression, including the fact that pure victims tend to blame themselves for being victimized.

A major goal of the current study was to better understand the social information-processing patterns of well-adjusted youth, particularly in comparison to aggressive-victims, the most poorly adjusted subgroup of youth. The ATSS data provided limited insights into the beliefs and information-processing patterns of these two groups. More specifically, the data showed that well-adjusted youth were least likely to report values about their image and reputation as a guiding force in their behavior during physical victimization situations, and more likely than their purely aggressive counterparts to report intentions to engage in nonviolent behavior in all types of peer victimization situations. In addition, aggressive-

victims were more likely to cite values about relationships and values about right, wrong, and fairness when threatened with physical victimization compared to well-adjusted youth.

Although these data are useful, the ATSS paradigm fell short of truly broadening our understanding of well-adjusted youth's social information-processing patterns when exposed to peer victimization situations.

Limitations and Directions for Future Research

Although the findings of the current study provided some empirical support for five of the hypotheses, others were not supported. With this in mind, it is important to consider some of the limitations of the current study. First, the measures of adolescent adjustment were based entirely on self-report. Some researchers have expressed concern that self-reports of behavior, particularly aggression and victimization, are highly susceptible to bias compared to other reports (e.g., Perry et al., 1988). However, there is also empirical evidence that victims of aggression are identified as more maladjusted than non-victims regardless of whether the reporter was the victim him/herself or their peers (Crick & Bigbee, 1998). Given these concerns about biased reporting of adolescent behaviors, it is important to interpret these findings with caution as they represent a single perspective. A possible future solution might be to incorporate peer reports, and teacher and/or parents reports of the youth's adjustment to gain a better informed understanding of participants' adjustment.

Another limiting factor was the sample size of the latent profile groups of students who completed the ATSS interviews. Initially, the sample size of the latent profiles ranged from 59 for the passive-victims to 259 for the well-adjusted group. However, within the sub-sample who completed ATSS, the smallest group was the passive-victims with 15 students and the largest group was the well-adjusted group with 92 students. This decrease in sample

size likely negatively impacted the power for this study, thus decreasing the chances of finding an effect when one is present (Kraemer, 1981). A related limitation was the use of a combined sample of two truly distinct samples of youth (i.e., a predominately African American sample from an urban area, and a more diverse sample from a suburban area). Due to the limited sample size of sixth graders who completed the ATSS interviews, it was decided that the two separate samples should be combined in order to improve the power of the current study. However, these two samples differed noticeably in ethnic composition (i.e., 83% African American in the urban sample compared to 40% African American in the suburban sample), and family structure (i.e., 19% of the urban sample reside in a two-parent household compared to 52% of the suburban sample). It is also worth noting that the ATSS measure was originally developed based on problems identified as frequent, and difficult for the urban population (e.g., Farrell et al., 2006), and the measure was then pilot tested with a small sample of youth from the same urban area as the larger urban sample. Thus, it is likely that the scenarios were perceived to be more relevant, frequent, and difficult for youth in the urban sample compared to the suburban sample. Keeping these notable sample differences in mind, it is important to interpret the current findings with caution.

The absence of a number of significant findings suggests some limitations of the ATSS paradigm as a measure of youth schemas. One known problem encountered during this project was the wide variability in the amount of information provided by youth when responding to the prompts. Some youth merely talked back to the tape, stating that they would hit the person, or that they wouldn't do what the script stated. In contrast, other youth provided additional details about the underlying beliefs that would guide their response choices (e.g., "it's not nice to pick on people 'cause the same thing might happen to you and

it hurts people's feelings"). This wide variability contributed to low base rates for several of the themes. In fact, coders more frequently agreed on the absence of a theme, than on its presence due in large part to this low base rate. Thus, both the difficulties in youth's ability to discuss their thought patterns in detail and the resulting low base rate of codes may have negatively impacted the chances of this study identifying group differences in social information-processing patterns. It may be possible to address some of the adolescents' difficulties with discussing cognitive processes by providing more detailed instructions and additional practice (e.g., role plays, etc.) prior to engaging them in the paradigm. However, it is also possible that this population is not cognitively able to identify and discuss their values and beliefs in such an in-the-moment kind of activity. Further, it may be that some youth did not perceive these situations to be particularly realistic due to the contrived laboratory setting in which they were exposed to the material. As a result, many youth may have found it difficult to truly place themselves in the situations and discuss the thoughts and feelings that would typically be triggered by their exposure to these experiences in real life.

Designing peer provocation situations that artfully describe the escalation of a peer conflict without revealing too many details and remaining ambiguous is challenging. The process of developing the ATSS situations involved the expansion of previously identified problem statements (e.g., Someone was "fake" with you, sometimes acting like a friend and sometimes saying mean things about you) into multi-segment vignettes. In the process of expanding these situations, researchers added details about the relevant parties in the situation and their specific actions. It is possible that a level of detail was created that decreased the ambiguity of these situations, making it difficult or unnecessary for youth to make attributions about the cause of the situation and the intentions of the other parties

involved in the situation, or potentially reporting what they would intend to do in that situation. This may provide some explanation for the limited findings related to group differences, particularly in reports of causal and intent attributions.

Future studies examining latent profile membership based on measures of adjustment are needed to provide additional support for the current findings. First, a direct replication of this study's findings is recommended. In addition, given the ever changing nature of youth adjustment, particularly youth's experiences with victimization, and the importance of moving beyond cross-sectional designs to examine longitudinal relations, future research should explore changes in the latent classes of well-adjusted, aggressive, and victimized youth over time. Latent transition analysis is one type of longitudinal analysis that allows researchers to explore changes in latent classes or profiles over a specific time period. This analytic tool has previously been used to explore changes in patterns of behavior, such as those associated with peer relationships (e.g., Nylund, 2007). This tool would allow researchers to examine if youth who begin middle school as well-adjusted or victimized, remain within these groups or become less or more maladjusted by the end of sixth, seventh, and eighth grade.

Additional research examining differences in social information-processing patterns of distinct subgroups of victimized and aggressive youth is needed to address the limitations of the current study. First, continued work in the area of social information-processing measure development is essential. The ATSS paradigm appears to be a promising strategy for assessing youth's situation-specific beliefs and values as well as the distinct social information-processing patterns influenced by these latent knowledge structures in real time. However, in light of the problems with the current study, additional work needs to be

conducted to determine if this paradigm can reliably and effectively elicit youth's beliefs and cognitive processing patterns. Related to this, there remains a dearth of research on the specific kinds of values that youth possess (e.g., values about the world, values about right and wrong), particularly the values of well-adjusted youth. Given the push to not only prevent problem behavior but also foster positive youth development, future research needs to be conducted to provide a better understanding of the specific beliefs and values of well-adjusted youth in addition to those of their maladjusted peers. Further, it is important to examine differences in social information-processing patterns of subgroups of victimized and aggressive youth in different environments, including within rural and suburban samples, as well as within more ethnically diverse samples.

The findings from this study have important implications for interventions. The results demonstrated that exposure to distinct types of peer victimization elicits different types of values and cognitive processing patterns. In particular, this study showed that the types of behavioral intentions elicited are often tailored to the type of peer victimization experienced by youth (e.g., verbal victimization situations tended to elicit intentions to respond with verbal aggression). It also provided some indication of the types of situations within which youth are more likely to enact nonviolent responses. Related to this, limited information was gained about the distinct processing patterns of well-adjusted youth in comparison to their aggressive and victimized peers. Overall, these data suggest that interventions may benefit by incorporating situation-specific curriculum into their programs given that many youth engage in distinct cognitive processing and response patterns based on the specific type of conflict with which they are faced.

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Appendix A

Articulated Thoughts in Simulated Situations Instructions & Scripts

A. ATSS Instructions:

Today is *(date)*. **I am** *(interviewer's name)*, **and I'm here with student ID#** _____, **completing ATSS Protocol #** _____.

In this part we are trying to learn more about the sorts of things that students your age think about when they are faced with difficult situations, such as problems with their friends or at school. The way we think about things is a lot like talking to ourselves, although we don't usually talk out loud. For this project we want you to talk out loud about the thoughts that are running through your mind as you listen to some situations on a laptop.

We are going to ask you to listen to tapes of three situations that are examples of situations that students your age have told us have happened to them before. We want you to imagine that you are actually in the situations being described. While you're listening to each situation pay attention to what is running through your mind. We've divided each situation into five to nine parts. At the end of each part, you will hear a beep. When you hear the beep we want you to say the thoughts and feelings you were having while you listened to that part of the tape. Try to avoid just talking back to the people on the tape, and instead try to say as much as you can about what you were thinking or feeling while you were imagining yourself in the situation. The recorder in front of you will record what you say. After 30 seconds you'll hear another beep to signal that the story is about to continue. That will be your signal to stop talking and to listen to the next part of the tape.

There are no right or wrong answers, so please say whatever comes to your mind. Please be straight with us about what you're thinking in these situations. We really want to understand what students your age think about when they are in situations like these. The more you say, the better. Remember, your name will not be connected to the taping that we do here, so your thoughts will be kept private. Imagine as clearly as you can that it is really you in each situation that you are listening to.

After answering any questions you may have, we will begin with a practice tape to help you get used to talking out loud about your thoughts. Then, you'll have a chance to ask questions about the procedure in case there is anything that is still confusing.

Remember, at the end of each part, say out loud whatever you are thinking and feeling, as honestly and as completely as you can. Do you have any questions?

B. ATSS Scripts.

Situation 42Neutral: A friend was careless w/ something you loaned them and it got damaged.

NARRATOR: *"Settle back in your chair and close your eyes. Imagine that it is Friday afternoon and you just got out of your last class of the school day. Everyone is rushing to their lockers to get their books and go off for the weekend. You walk over to your locker to get your books together and you take a moment to look at your new MP3 player that you got as a gift. As you start to put your MP3 player in your bag, one of your good friends runs up to you and asks you if they can borrow your new MP3 player for the weekend. The voice you will now hear is your good friend."*

(1)

GOOD FRIEND: "Hey, you know that MP3 player you got? Think I could I borrow it for the bus ride home today? I promise I'll bring it back to you on Monday."

-----<BEEP>-----
-----< BEEP >-----

(2)

Narrator: You don't really want to let your friend borrow your new MP3 player, so you tell your friend that you are not sure. Your good friend starts lookin really upset and says:

GOOD FRIEND: "Look, some kid keeps picking on me and teasing me on my bus ride home. If I can listen to your MP3 player on the way home from school today, I can just listen to music and ignore them. Come on. Remember all the times I used to let you borrow my MP3 Player?"

-----<BEEP>-----
-----< BEEP >-----

(3)

Narrator: You look at your friend like you don't really want them to borrow your new MP3 player.

GOOD FRIEND: I mean, you are one of my best friends. You know I'll bring it back to you on Monday. Trust me. I'll bring it back to you."

-----<BEEP>-----
-----< BEEP >-----

(4)

Narrator: You start to feel bad for them, and decide to let your friend borrow your new MP3 player. You tell them to bring it back to you on Monday morning and your friend runs off to catch their bus.

GOOD FRIEND: "Thanks! I owe you one. I promise I'll bring it back to you on Monday."

-----<BEEP>-----
-----< BEEP >-----

(5)

Narrator: "On Monday morning, you look everywhere for your friend and figure out that they are trying avoiding you. You finally find your good friend and ask for your MP3 player back and they say:

GOOD FRIEND: “Heeey. Ummm, I just realized that I left your MP3 player at home today. I’m really sorry. I promise I will bring it in tomorrow”

-----<BEEP>-----
-----< BEEP >-----

(6)

Narrator: "The next day, you have trouble finding your friend again. You see your friend at your locker and confront them about your MP3 Player.”

GOOD FRIEND: Okay, I’m going to be straight with you. I accidentally dropped your MP3 Player this weekend. It still works fine, but the glass on the front of the MP3 player is cracked. I knew you would be mad, so I didn’t want to tell you.

-----<BEEP>-----
-----< BEEP >-----

Situation 52 Witness Male & Female Version: Another kid at school said something to you that was disrespectful about your family

(1)

Narrator: Imagine you are hanging out in the cafeteria with a group of your peers. Everyone in the group is joking around with each other about clothes and the way people act, and then all of a sudden one of the kids in the group starts teasing another kid about his family. The voices you will hear next are of the other students.

Student1 (laughter): I heard your momma’s so fat, she can’t fit in through the doorways in your house without turning sideways.

Student 2: Stop trippin yo! Why you talkin about my mama like that! Mind your business!

-----<BEEP>-----
-----< BEEP >-----

(2)

Student1: Oh, whatever, I heard she’s so fat she eats up all the food in your house, and that’s why you gotta eat food at school.

Student 2: You know that ain’t true! My momma ain’t fat, she beautiful. Why you talking that mess? I bet she look better than your momma anyway!

-----<BEEP>-----
-----< BEEP >-----

(3)

Student1: Whatever, I heard she so fat and ugly that your dad left cause he couldn’t stand to look at her...She made his eyes bleed!

Student 2: You know that ain’t true! You don’t know me or my mama so why you feven trippin like that, watch your mouth!

-----<BEEP>-----
-----< BEEP >-----

(4)

Narrator: The student who is being teased starts to try to walk away before things get worse, but the other student keeps harassing him making it hard for him to not say anything back

Student1: Oh come on, just admit it, your dad left your momma cause she so ugly he didn't want to be around her.

Student 2: Man, I don't have time, I ain't got time to explain my family to you.

-----<BEEP>-----
-----< BEEP >-----

(5)

Narrator: Now other kids are joining in with this one kid who is saying mean things about the other kids mom, and they are saying mean things to the kid about his mom as well.

Student 3 (laughs): How do you live at home with your mom, it must be hard for you to look at her or be around her in public cause she's so ugly and fat.

Student4: I bet dinner is hard to get. She probably eat up all the food and leaves nothing for you. That's why you so skinny!

-----<BEEP>-----
-----< BEEP >-----

(6)

Narrator: The kid who is being teased starts getting really angry because the kids won't listen to them. He starts talking back to the other kids and saying things about their families.

Student 2: At least I have parents that care about me. You guys wouldn't be messing with me if you weren't jealous of what I have. All you all whack!

Student1: Oh yeah, you don't know nuthin about me. It doesn't matter anyway, least my momma not fat or ugly.

Student 3: Yeah, don't talk about me. At least my mom and dad are still together.

-----<BEEP>-----
-----< BEEP >-----

(7)

Narrator: The kid who is getting teased gets fed up with the other kids.

Student 2: You guys don't even know my momma or the rest of my family. So you better chill out! Ok?

-----<BEEP>-----
-----< BEEP >-----

(8)

Narrator: The kid then storms out of the lunchroom with the other kids yellin after him, calling him a punk and a whimp.

-----<BEEP>-----
-----< BEEP >-----

Situation 58 Active Male & Female Version: You and another kid got into an argument at school. Other students who were there boosted it up saying, Fight, fight, fight.

(1)

NARRATOR: "Settle back into your chair and close your eyes. Imagine that you were walking to your 2nd period class and were accidentally pushed into another student. The student that you were accidentally pushed into turns around and shoves you into the locker. You tell the student that it was an accident, but they continue to get in your face and yell at you."

Student: Yo, what's your problem? You think you can just go around and shove whoever you want? Who do you think you are?

-----<BEEP>-----
-----< BEEP >-----

(2)

Narrator: *The student is in your face and other students in the hallway start to form a circle around you two. You start to walk away, and the student starts to yell even louder.*

Student: Oh, what, are you going to try to walk away me now? Can't fight me? You're going to shove me and then run away like a little punk?

Crowd: **Laughter** Ooh, you just got called you out. **Laughter** You jus' got called a punk.

Crowd: You gonna take that? You gonna let yourself get clowned like that?

-----<BEEP>-----
-----< BEEP >-----

(3)

Narrator: *You try to tell the student to calm down because it was an accident, but the student continues to get in your face and the argument gets heated. You look around and the students around you are yelling at you to fight.*

Student: That's right. I called you a punk. Why don't you step up and do somethin' about it?

Crowd: **The crowd gets bigger and starts chanting** Fight! Fight! Fight!

-----<BEEP>-----
-----< BEEP >-----

(4)

Narrator: *You look around and there is now a huge group of students surrounding you and yelling at you to fight the other student.*

Crowd: Fight! Stop standing there and DO something!

Student: Come on, let's do this!

Crowd: Fight! Fight! Fight!

-----<BEEP>-----
-----< BEEP >----- (5)

Narrator: *Everyone is yelling at you to fight and the other student is getting closer and closer to your face. The student is so close that you can see sweat the rolling down their face and they are yelling so loudly that they are now spitting in your face as they yell in your face.*

Student: I guess you don't want to fight me. You were raised by punks, so I guess I should expect this. **The other student pushes you hard in the shoulder**

Crowd: oOo. Those are fightin' words. You bes' not take that. You gonna let someone touch you. You're not going to stand up for yourself? What a little *****!!!

Crowd: Fight already!!! Fight! Fight! ...

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Situation #22Active Male Version: Other kids encouraged you to start a fight.

(1)

NARRATOR: Imagine that you and two of your friends are standing by your lockers in the hallway before class starts. Lots of kids are around, but no teachers or other adults. You and your friends are talking about a test that's coming up next period, when you see some big kids coming toward your group. You don't get along with one of them, and everyone says he will fight anyone.

[Background noise of other kids talking, locker doors slamming]

FRIEND 1: Did you study for the quiz?

FRIEND 2: Yeah, I guess. I'm still not sure I get that one part we went over yesterday, but hopefully I'll get by.

FRIEND 1: Ooohh lord, look who's coming. I thought he was suspended.

FRIEND 2: Guess he's back. I hate them, they always thinking they go so hard.

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-----< BEEP >-----

(2)

FRIEND 1: Hey, didn't you say that Marcus was coming off last week?

FRIEND 2: I remember that, he completely played you in front of everyone.

FRIEND 1: [laughing] Man, that was hilarious, but that was messed up.

-----<BEEP>-----
-----< BEEP >----- (3)

FRIEND 2: Yeah, I thought you was gonna hit him.

FRIEND 1: Man, I'm surprised you let him treat you that way.

FRIEND 2: Now he thinks he can treat you however he wants.

-----<BEEP>-----
-----< BEEP >----- (4)

FRIEND 1: I know you not gonna let him grit on you like that.

FRIEND 2: I ain't see it, what happened?

FRIEND 1: Marcus was laughing with his clique, and then he looked over here like he was all that.

FRIEND 2: Man, he's asking for it.

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(5)

NARRATOR: The bell rings and Marcus and his group of friends start to walk closer to you. They're yelling and laughing loudly. Marcus gets real close as he walks by, and brushes up against you.

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-----< BEEP >----- (6)

FRIEND 1: Did he just bump you?

FRIEND 2: He straight up did that on purpose, he can walk fine, he ain't got to be touching you.

FRIEND 1: You need to go fight him. He been asking for it for weeks.

-----<BEEP>-----
-----< BEEP >----- (7)

MARCUS: Did you say something? I thought I heard somebody talking, but I know it can't be you, 'cuz you're too much of a punk.

FRIEND 1: No one's scared of you.

MARCUS: Oh yeah? Then how come everybody's talking about what a punk your friend is?

-----<BEEP>-----
-----< BEEP >----- (8)

FRIEND 2: That's it. You need to get it over with.

FRIEND 1: You can't just stand there and take that.

FRIEND 2: Everyone will think you're a punk if you walk away. Hit him man!

-----<BEEP>-----
-----< BEEP >----- (9)

FRIEND 1: We got your back. Just go up there and rock him.

FRIEND 2: Yeah, we got you if you need us.

FRIEND 1: But if you don't do this now, he will just be on you forever, and other people will try to fight you too.

FRIEND 2: Yeah, you've got no other choice, you've got to fight him now.

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Situation #22 Active Female Version: Other kids encouraged you to start a fight.

(1)

NARRATOR: Imagine that you and two of your friends are standing by your lockers in the hallway before class starts. Lots of kids are around, but no teachers or other adults. You and your friends are talking about a test that's coming up next period, when you see some big kid coming toward your group. You don't get along with one of them, and everyone says she will fight anyone.

[Background noise of other kids talking, locker doors slamming]

FRIEND 1: Did you study for the quiz?

FRIEND 2: Yeah, I guess. I'm still not sure I get that one part we went over yesterday, but hopefully I'll get by.

FRIEND 1: Ooohh lord, look who's coming. I thought she was suspended.

FRIEND 2: Guess she's back. I hate those that group of girls, they think they hard.

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(2)

FRIEND 1: Hey, didn't you say that Janay was coming off last week?

FRIEND 2: I remember that, she played you in front of everyone.

FRIEND 1: [laughing] Man, that was so embarrassing.

-----<BEEP>-----
-----< BEEP >-----

(3)

FRIEND 2: Yeah, I thought you was gonna hit her.

FRIEND 1: Man, I'm surprised you let her treat you that way.

FRIEND 2: Now she thinks she can treat you however she wants.

-----<BEEP>-----
-----< BEEP >-----

(4)

FRIEND 1: I know you are not gonna let her grit on your like that.

FRIEND 2: I ain't see it, what happened?

FRIEND 1: Janay was laughing with her ugly friends, and then she looked over here like she was something special.

FRIEND 2: Man, she is really asking for it.

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(5)

NARRATOR: The bell rings and Janay and her group of friends start to walk closer to you. They're yelling and laughing loudly. Janay gets real close as she walks by, and brushes up against you.

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-----< BEEP >-----

(6)

FRIEND 1: Oh no she did not just bump you!

FRIEND 2: She straight up did that on purpose, she can walk just fine, she ain't got to touch you.

FRIEND 1: You need to go fight her. She been asking for it for weeks.

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(7)

JANAY: Did you say somethin? I thought I heard somebody talking, but I know it can't be you, 'cuz you're too much of a punk.

FRIEND 1: No one's scared of you.

JANAY: Oh yeah? Then how come everybody's talking about what a punk your friend is?

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(8)

FRIEND 2: That's it. You need to get it over with.

FRIEND 1: You can't just stand there and take that.

FRIEND 2: Everyone will think you're a punk if you walk away. Hit her man! Hit her!

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-----< BEEP >-----

(9)

FRIEND 1: We got your back. Just go up there and rock her

FRIEND 2: Yeah, we got you if you need us to.

FRIEND 1: But if you don't do this now, she will just be on you forever, and other people will try to fight you too.

FRIEND 2: Yeah, you've got no other choice, you've got to fight her now.

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Situation 16 Active Male Version: Someone was "fake" with you, sometimes acting like a friend and sometimes saying mean things about you.

(1)

NARRATOR: "Settle back into your chair and close your eyes. Imagine that you are overhearing a conversation between your close friend and another student. Your friend and the other student are standing at their lockers and they're talking about you. *They don't know* that you're listening. Listen in right now as you hear them talking about you. Remember, this is your close friend talking."

Close friend: Did you see how ugly his shoes were today?

Student: Oh yea, they were crushed.

[both snicker]

Close friend: I shouldn't be too surprised. He *always* wears ugly shoes

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-----< BEEP >-----

(2)

Narrator: *Your close friend and the other student continue to talk about you. Remember, they don't know that you're listening and they're talking about you.*

Close friend: So, you're still having people over to chill at ya house this weekend, right?

Please don't tell me that your inviting him. He is so whack.

Student: Yea, I am having a lot of friends come over my house tomorrow for a cookout. My parents told me that I can invite whoever I want. It's going to be jumpin. And no, I'm not inviting him to my party.

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(3)

Student: Why do you talk to him, then?

Close friend: I don't know, I mean, he is so weird, he just, starts talking to me for no reason.

Student: Oh really, I thought you were cool with him.

Close Friend: No way. He is so pathetic. He always tags along and tries to hang out with me, but I can't stand him.

Narrator: *Your close friend and the other student still continue to talk about you. And they do not know that you are listening.*

Close friend: Yea, I only hang out with him in school so he will help me do my homework

Student: Oh yeah?

Close Friend: Yea, otherwise I would never talk to him.

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(4)

Narrator: *Your close friend and the other student look up and notice you standing there. Your close friend walks over to you with a smile on his face. Your close friend is not sure if you overheard the conversation*

Close friend: Hey, what's up? Are you coming with me to the cafeteria? It's hot wings today!

Close Friend: Oh, your shoes look sweet! Where'd you get them?

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(5)

Narrator: *Your friend now realizes that you may have overheard the conversation and says*

Close friend: I didn't really mean what I said, you know me. You know you're my boy...Come on. You know I would never talk about you behind your back. I was just messin' around.

Close friend: So, anyway, what are you doing after school today...

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Situation 16 Active Female Version: Someone was "fake" with you, sometimes acting like a friend and sometimes saying mean things about you.

(1)

NARRATOR: "Settle back into your chair and close your eyes. Imagine that you are overhearing a conversation between your close friend and another student. Your friend and the other student are standing at their lockers and they're talking about you. *They don't know* that you're listening. Listen in right now as you hear them talking about you. Remember, this is your close friend talking."

Close friend: Did you see how ugly her shoes were today?

Student: Oh yea, they were crushed.

[both snicker]

Close friend: I shouldn't be too surprised. She *always* wears ugly shoes.

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-----< BEEP >-----

(2)

Narrator: *Your close friend and the other student continue to talk about you. Remember, they don't know that you're listening and they're talking about you.*

Close friend: So, you're still having people over to chill at ya house this weekend, right? Please don't tell me you're inviting her. She is so whack!

Student: Yea, I am having a lot of friends come over my house tomorrow for a barbeque. My parents told me that I can invite whoever I want. It's going to be so much fun. And no, I'm not inviting her to my party.

-----<BEEP>-----
-----< BEEP >-----

(3)

Student: Why do you talk to her, then?

Close friend: I don't know, I mean, she is so weird, she just starts talking to me for no reason.

Student: Oh really, I thought you were cool wit her.

Close Friend: No way. She is so pathetic. She always tags along and tries to hang out with me, but I can't stand her.

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-----< BEEP >-----

(4)

Narrator: *Your close friend and the other student still continue to talk about you. And they do not know that you are listening.*

Close friend: Yea, I only hang out with her in school so she will help me do my homework

Student: Oh yea?

Close Friend: Yea, otherwise I would never talk to her.

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-----< BEEP >-----

(5)

Narrator: *Your close friend and the other student look up and notice you standing there. Your close friend walks over to you with a smile on her face. Your close friend is not sure if you overheard the conversation*

Close friend: Hey, what's up? Are you coming with me to the cafeteria? It's hot wings today!

Close Friend: Oh, great shoes by the way! Your shoes look sweet. Where you get them?

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(6)

Narrator: *Your friend now realizes that you may have overheard the conversation and says*

Close friend: I didn't really mean what I said. You know me. You know you're my girl....Come on now. You know I would never talk about you behind your back. I was just messin' around.

Close friend: So, anyway, what are you doing after school today...

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Appendix B

Articulated Thoughts in Simulated Situations Coding Manual

Theme Name	Theme Definition	Coding Scale
<p><i>Ok to fight in response to physical aggression</i></p>	<p>Belief that it is acceptable, and in some cases necessary to act aggressively if the other is the first aggressor, and physical aggression justifies retaliatory aggression.</p> <p>Ex 1: If the person shoved me, I'm going to have to shove them back because it's self-defense and I don't feel like I'm going to let somebody push me or shove me around. I'm not the type of person.</p> <p>Ex 2: "I would probably push her back because she touched me first."</p> <p>Ex 3: "I would have shoved her back that's what I would have did because don't nobody put their hands on me"</p> <p>Decision Rules: Only code this is one or more of the following are true:</p> <ol style="list-style-type: none"> 1) the participant cites a reason for fighting the person on the tape as the person bumping into them, or physically aggressing against them in someway. 2) The participant states "I would fight this person because they X (e.g., hit me first, bumped into me). <p>Do not code if the following is true:</p> <p>If the person just states that "I would fight" in their response to a segment involving physical aggression</p>	<p>In each segment give a code of 0 if the code is absent and 1 if present.</p>
<p><i>Ok to fight in response to non-physical aggression</i></p>	<p>Belief that certain instances of non-physical aggression (e.g., personal insults about the youth or his/her family) justify the use of physical aggression.</p> <p>Decision Rules: Only code this if one or more of the following are true:</p> <ol style="list-style-type: none"> 3) the participant cites a reason for fighting the person on the tape as them talking about them to their face, behind their back, calling them names (e.g., punk), or talking about their family 4) The participant states "I would fight this person 	<p>In each segment give a code of 0 if the code is absent and 1 if present.</p>

	<p>because they X (e.g., called me a punk, talked about my family).</p> <p>Do not code if the following is true:</p> <p>1) If the person just states that “I would fight” in their response to a segment involving nonphysical aggression</p> <p>Ex 1: “the person keeps calling me names and stuff, then I would fight”</p> <p>Ex 2: “Well, if she came back and kept talking her junk and stuff, and hating, I would’ve knocked her out.”</p>	
<i>Beliefs against fighting</i>	<p>Belief that fighting is wrong. Also includes the belief that fighting can get you in to trouble.</p> <p>Ex 1: “I should try to stop them from fighting because it’s bad for them and it’s bad for like, the school, and the class, they might be late for class, and it’ bad because it’s starting a fight and that’s a violation of the code of conduct, and that’s it. Oh, and they could get suspended.”</p> <p>Ex 2: “I would not fight them because I would not want to get suspended.”</p> <p>Do not code if the following is true:</p> <p>1) If the person just states that “I would not fight” in their response to the segment. That should be coded as a behavioral intention.</p>	In each segment give a code of 0 if the code is absent and 1 if present.
<i>Values about Relationships</i>	<p>General “rules” that youth have for how friends or family should behave that influence youth’s behavior. This includes values about what a friend should and should not do as well as values about the importance of being able to trust those you are in relationships with. (e.g., “She’s supposed to be my friend and she’s going behind my back and talking about me”)</p> <p>Decision Rules:</p> <p>1) If the child says “I would do that for my friend” or “I would tell my friend to do X”- these are NOT coded values about relationships</p> <p>2) If the statement indicates that “Friends should do X or Friends shouldn’t do X- code this as</p>	In each segment give a code of 0 if the code is absent and 1 if present.

	<p>valuing relationships.”</p> <p>3) If student is talking directly to the friend and saying “I’m not gonna be your friend anymore because of X”- this is coded as valuing relationships</p> <p>Ex 1: “I mean, you got friends too, and if they’re you’re real friends they would help you, stand up for you like mine would. I got best friends, and I know they’ll help me.”</p> <p>Ex 2: “If she was a true friend, then you have to give some trust to her.”</p> <p>Ex 3: I’m not talking about them since they’re my best friend, they shouldn’t be talking about me.”</p>	
<p><i>Beliefs about Right, Wrong, and Fairness</i></p>	<p>Belief that being nice, kind, and helpful is the right thing to do and leads to positive outcomes while being unkind leads to negative consequences. Also includes beliefs about treating people fairly and expecting similar treatment in return.</p> <p>Decision Rules:</p> <ol style="list-style-type: none"> 1) If it includes the words “It’s not right to..” or “It’s wrong to..” or “It’s not fair,” or “It’s not good to do X” or “It’s not nice to..” 2) If the statement suggests the notion of getting the same thing in return that is given to another person (e.g. “You talk about my mother, I’m going to talk about your mother”) 3) If participants state that “It’s wrong to do X because you are my friend” these should NOT be coded in this code and should be coded in Values about relationships. 4) Do not code statements about “If he hits me, I should/will hit him back” or “If he/she says something to me, I should/will hit them” as these reflect the Ok to fight in response to physical and nonphysical aggression codes 5) If they say something about how “fighting is not right, or fighting is wrong” this should go in Beliefs against fighting, and NOT in this code <p>Ex 1: “it’s not nice to pick on people ‘cause the same thing might happen to you and it hurts people’s feelings”</p>	<p>In each segment give a code of 0 if the code is absent and 1 if present.</p>

	<p>Ex 2: “talking about each other’s mommas is not right because for one, they probably don’t know each other’s momma, and two, if they did, they shouldn’t be talking about each other’s momma.”</p> <p>Ex 3: “You shouldn’t, it’s no reason for you to talk about people because she didn’t say nothing to you or do nothing to you.”</p> <p>Ex 4: “If that way she want to act, treat me, then I will treat her that way.”</p>	
<p><i>Image and Reputation</i></p>	<p>The perception of a threat (anticipated or actual) to status during transactions with peers motivates youth to respond in a certain way to protect/maintain or improve their image.</p> <p>Decision Rules:</p> <ol style="list-style-type: none"> 1) References to being called names (e.g., punk), and a need to act in a certain way (usually fight) to show that they are not a punk or a whimp 2) References to trying to look cool, fit in, or be popular as a guide for or the reason for acting a certain way <p>Ex 1: “I would have fought him cuz everybody think I should but not just cuz it was peer pressure because everybody think that he can beat me and they callin me punks and stuff”</p> <p>Ex 2: “What I would have done is exactly what you tell me to do, hit her, cause she been trying to make me look like a punk for more than once, then it’s gonna be on, cause I ain’t no punk.”</p> <p>Ex 3: “um, I’ll just laugh. And try to fit in with my group.”</p> <p>Ex 4: “Being clowned is not one of the things I like to be, so we would have a problem.”</p> <p>Ex 5: “I can’t be having a reputation as the bad girl who fought the mean girl. I can’t have that reputation I want to have the reputation of that sweet, quiet, fun, outgoing, smart person and I know things happen, so, I mean, I</p>	<p>In each segment give a code of 0 if the code is absent and 1 if present.</p>

	can't help it."	
<i>Internal Causal Attributions</i>	<p>Perceptions that the causes for a social event are a result of the way the individual behaved.</p> <p>Decision Rules:</p> <ol style="list-style-type: none"> 1) If they made it seem like it was the victim or target of the aggression's fault, code as internal causal attribution 2) Any references to something about the self as the problem or the source of the situation <p>Ex 1: "You always trying to do something to me because I'm, it's me"</p> <p>Ex 2: "She doesn't really want me around, so why stay around."</p> <p>Ex 3: "I would be feeling embarrassed right then because the people were making fun of me for something I did"</p>	In each segment give a code of 0 if the code is absent and 1 if present.
<i>External Causal Attributions</i>	<p>Perception that the causes for a social event are external to the participant.</p> <p>Decision Rules:</p> <ol style="list-style-type: none"> 1) Anytime participant blamed cause of the situation on the other person, or gave advice to a target person that it was the other person in the situation's fault. 2) If they explained the reason for peer's behavior as being because of something about that person, like they are jealous (code only if it seemed like participant actually believed this, but not if it seemed like they were just teasing/talking back to the other kid as self-defense) <p>Ex 1: "So I don't really see anything I've got to do to make her stop being mean to me, that's her own problem"</p> <p>Ex 2: "For real though, is your mama fat? Cuz you getting into us, somebody, somebody in your family must be fat."</p> <p>Ex 3: "And the other girl is just hating on her 'cause she got all the...she looks better than they do."</p>	In each segment give a code of 0 if the code is absent and 1 if present.
<i>Benign Intent</i>	Judgments that a peer's intentions are non-threatening	In each segment

<p><i>Attributions</i></p>	<p>or benign (e.g., joking, not telling the truth, accidental insults)</p> <p>Decision Rules:</p> <ol style="list-style-type: none"> 1) Code if person says “They/he/she was just joking/playing” or “It was an accident/mistake” 2) Code if statements start with “he is only doing X, or it was just X 6) Code if they say “I think they were being nice/kind etc” <p>Ex 1: “I wouldn’t do nothing but ignore it ‘cause Marcus didn’t do anything to me, except for just, um, tease me.”</p> <p>Ex 2: “This is nothing to fight over, why would I fight and get me in trouble when it was just an accident, cuz, I could, we could get, both of us in trouble just over something silly.”</p>	<p>give a code of 0 if the code is absent and 1 if present.</p>
<p><i>Hostile Intent Attributions</i></p>	<p>Judgments that a peer’s intentions in a situation are purposely hostile.</p> <p>Decision Rules:</p> <ol style="list-style-type: none"> 1) Kid says “You always do X or want to do X” or “I know she/he will do X or is being like X” 2) Doing something on purpose or something mean-spirited as long as it isn’t directly stated that they were being purposely mean in the script 3) “They are asking for it” <p>Ex 1: “I think those other guys are startin to be major jerks, just because somebody, somebody’s being a major jerk doesn’t mean they have to come in and start following him, I mean he, they should probably be sticking up for the other guy. They don’t know his family, his mom probably isn’t fat at all. They just wanna, they just probably wanna be mean to him. Just because that other guy was.”</p> <p>Ex 2: “His friends try to get him to fight because they want to see a fight. That’s the only reason why, cuz they want to see a fight. “</p> <p>Ex 3: “Hey man, what’s yo’ problem?! You did that on purpose, you need to quit out. Quit it out!”</p>	<p>In each segment give a code of 0 if the code is absent and 1 if present.</p>

<p><i>Behavioral Intentions for Nonviolent Behavior</i></p>	<p>Expressions of the participant’s intent to engage in non-violent behavior in response to the script.</p> <p>Decision rule:</p> <ol style="list-style-type: none"> 1) Usually takes the form of “I would do X” 2) Can also take the form of talking back to the tape and telling the tape that they would walk away, not fight etc. <p>Ex 1: “I would tell her to leave me alone and walk away.”</p> <p>Ex 2: “I would probably turn around and say, why did you do that? And probably walk away if he tries to punch me or any of that. Umm, and go tell the teacher.”</p>	<p>In each segment give a code of 0 if the code is absent and 1 if present.</p>
<p><i>Behavioral Intentions for Physical Aggression</i></p>	<p>Expressions of the participants’ intent to engage in physical aggression in response to the script.</p> <p>Decision rule:</p> <ol style="list-style-type: none"> 1) Usually takes the form of “I would do X” 2) Can also take the form of talking back to the tape and pretending to beat the other person (in the script) up <p>Ex 1: “I ain’t going to say nothing, but if he keep looking at me, I might go over there and fight him.”</p> <p>Ex 2: “If it still continues to go on and on, then I’m going to eventually start getting mad and eventually hit her.”</p> <p>Ex 3: “this girl needs to stop spitting in my face and stop being all up in my face you know what I am just going to punch her.”</p>	<p>In each segment give a code of 0 if the code is absent and 1 if present.</p>
<p><i>Behavioral Intentions for Non-Physical Aggression</i></p>	<p>Expressions of the participants intent to engage in non-physical aggression, including verbal aggression (teasing, threatening) or relational aggression (intentionally damaging the relationship) in response to the script (e.g., if he said that to me, I would spread rumors about him).</p> <p>Decision rule:</p> <ol style="list-style-type: none"> 1) Usually takes the form of “I would do X” 2) Can also take the form of talking back to the tape and calling that person names or telling that person they will spread rumors about them 	<p>In each segment give a code of 0 if the code is absent and 1 if present.</p>

	<p>Ex 1: “I would just keep letting them run their mouth and then I’d just bomb back on him. Talk about them back!”</p> <p>Ex 2: “If she was doing all that to me and my friend, I would go over there and say something to her, something mean to make her feel uncomfortable about everybody hearing and I wouldn’t just stand there and let her talk about me that way cause that’s wrong. “</p>	
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CURRICULUM VITA

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August 2004- August 2010.

Supervisor: Albert Farrell, Ph.D.

This role involved serving as a research assistant for studies within the CHIPYD examining risk and protective factors associated with youth violence, and refining interventions to prevent youth violence. Studies include the Essential Skills for Violence Prevention study (NIMH funded), the Multisite Violence Prevention Project (CDC funded), and the Risk and Protective Factors for aggression and factors promoting effective nonviolent behavior project (CDC funded). Responsibilities included:

- Coordinating and assisting with the development of novel measures
- Conducting qualitative analyses using a qualitative research computer program (Nvivo7) on semi-structured interviews with middle school students
- Conducting literature searches for upcoming studies and manuscripts
- Prepared Institutional Review Board submissions
- Performing quantitative analyses of previously collected data using SPSS, M-Plus, and SAS
- Writing manuscripts for completed studies.

Treatment Adherence Coder. Child STEPS Project, Virginia Commonwealth University, Richmond, VA

October 2005- December 2008.

Supervisor: Michael Southam-Gerow, Ph.D.

This role involved the following responsibilities:

- Code video and audiotapes of therapy sessions to measure therapist competence and adherence to CBT manualized treatments
- Develop proficiency in the administration of the following manualized treatments: PASCET program for youth depression, Coping Cat for anxiety disorders, Noncompliant Child program for ADHD/Conduct disordered youth.

Research Coordinator, Youth Anxiety & Depression Study, Video-Guided Treatment & Prevention of Adolescent Depression Study, UCLA. Los Angeles, CA. August 2002-July 2004.

Supervisor: John Weisz, Ph.D.

Coordinated two large scale research studies. Responsibilities included:

- Assisting with subject recruitment and data collection
- Managing confidential subject files and other data files
- Supervising research assistants

- Serving as a liaison between these research projects and external agencies including local schools and mental health organizations.

Research Assistant, UCLA Child Anxiety Research Project, UCLA Neuropsychiatric Institute. Los Angeles, CA.

October 2001- August 2002.

Supervisor: Jeffrey Wood, Ph.D.

Responsibilities included:

- Managing confidential subject data files
- Conducted semi-structured interviews with child subjects.
- Analyzed pre and post-treatment video data using a behavioral coding system
- Led weekly lab meetings for all research assistants involved in the study
- Coordinated childcare for subjects during their guardian's study appointments

Clinical Experience:

Psychology Intern. La Rabida Children's Hospital, Chicago, IL.

July 2009- June 2010

Supervisors: Cathy Mavrolas, Ph.D., Neil Hochstadt, Ph.D., Renee Dominguez, Ph.D.

Psychotherapy and assessment of children and families in three areas:

- **Trauma:** cases include physical and sexual abuse/ neglect, exposure to domestic violence and/or community violence etc. In addition, a four month rotation at the Joli Burrell Children's Advocacy Center conducting short term trauma-focused treatment.
- **Pediatrics:** cases include cerebral palsy, diabetes, sickle cell disease, post surgical rehabilitation, failure to thrive, etc. In addition, a four month rotation in the pediatric incontinence clinic, evaluating factors contributing to children's incontinence and one longer term case for behavioral modification training.
- **General Child:** cases including mood and anxiety disorders, school problems, attention and behavior problems etc.
- **Psychoeducational assessment:** for learning disorders, ADHD, and a range of behavioral/ emotional difficulties.

Group Leader. University Counseling Services. Virginia Commonwealth University, Richmond, VA.

August 2008- May 2009

Supervisor: Alena Betton, Ph.D.

Co-lead a weekly interpersonal process therapy group for college students.

Psychology Practicum Therapist. Children's Feeding Program, Children's Hospital of Richmond, Richmond, VA

April 2008-May 2009

Supervisors: Donna Purcell, Psy.D., Gail Argenbright, Ph.D.

Serve as a behavioral consultant to families attending the Day Patient Feeding Program. This role involved the following activities:

- assessment of mealtime behaviors
- supervision of feeding therapy to improve child's eating behaviors
- consultation on non-feeding related behavioral issues

- Working with an interdisciplinary team to provide excellent care for all patients.

Psychology Practicum Therapist. Virginia Treatment Center for Children. Richmond, VA.

July 2007-June 2008

Supervisor: William Fahey, Ph.D.

This role involved working with client representing a broad range of socioeconomic status and ethnicities, and involved the following activities:

- Individual and family psychotherapy of youth in the residential treatment program and their families on a short-term inpatient basis.
- Conduct cognitive, psychological, and personality assessments with children and adolescents.

Group Leader. University Counseling Services. Virginia Commonwealth University, Richmond, VA

May 2007-August 2007.

Supervisor: Janice Altman, Ph.D.

Co-led a weekly interpersonal process therapy group for college students.

Process Observer. University Counseling Services. Virginia Commonwealth University, Richmond, VA.

September 2006-May 2007.

Supervisor: Janice Altman, Ph.D.

Responsibilities included:

- Observe a weekly interpersonal process therapy group for college students.
- Provide oral and written feedback to group members on the therapeutic process.

Intelligence Testing Examiner. The Collegiate School, Richmond, VA.

September 2005-November 2005, September 2006-November 2006.

Supervisor: Rosalie Corona, Ph.D.

Activities included:

- Administration of the WISC-IV to 3rd grade students as part of the routine intelligence assessment.
- Provide all third grade teachers at the school with reports and interpretations of students' cognitive abilities.

Student Therapist. Center for Psychological Services and Development, Virginia Commonwealth University. Richmond, VA.

June 2005-December 2007

Supervisors: Rosalie Corona, Ph.D.; Laura Wert, Ph.D.

This role involved working with clients from a broad range of socioeconomic statuses and ethnicities. Responsibilities included:

- Administration of cognitive, achievement, and psychological assessments with children, adolescents, and adults.

- Administer empirically-supported treatments to child, adult, and family clients on both a short-term and long-term outpatient basis. Clients of this community-based training clinic represent a broad range of socioeconomic statuses and ethnicities.

Student Therapist. Anxiety Clinic, Center for Psychological Services and Development, Virginia Commonwealth University. Richmond, VA.

June 2005-September 2007.

Supervisor: Michael Southam-Gerow, Ph.D.

This role involved the following responsibilities:

- Delivering empirically-supported treatments to children, adolescents, and adults with a primary diagnosis within the anxiety disorder spectrum.
- Conducting stress management seminars and school outreach to local schools and agencies.

Group Facilitator. St. Christopher's & St. Catherine's Drug and Alcohol Awareness Night. Richmond, VA.

March 2005, April 2006.

This role involved the following activities:

- Facilitating a group for middle school students and parents that addressed issues surrounding students' exposure to and understanding of drug and alcohol consumption and abuse.

Presenter/ Group Facilitator. St. Catherine's School Stress Management Workshop. Richmond, VA.

January 2005, January- April 2006

Supervisor: Michael Southam-Gerow, Ph.D.

This role involved the following responsibilities:

- Presented information about the definition of stress, its causes, and techniques to cope with stress
- Facilitated group discussion with middle school girls on stressors relevant to their lives and stress management strategies.

Presenter/ Group Facilitator. Children's Day Camp, Agoraphobics Building Independent Lives, Inc. Richmond, VA.

July 2005.

Supervisor: Michael Southam-Gerow, Ph.D.

This role involved co-leading two groups of inner city youth, ages 6-12. Responsibilities included:

- Presented information about the definition of stress, its causes, and techniques to cope with stress
- Facilitated group discussion with middle school girls on stressors relevant to their lives and stress management strategies.

Clinical Interviewer. Youth Anxiety & Depression Study, UCLA. Los Angeles, CA.

August 2002-July 2004.

Supervisor: John Weisz, Ph.D.

Administered the Diagnostic Interview Schedule for Children (DISC) to youth ages 8-15 with a primary diagnosis of either depression or anxiety.

Support Group Facilitator. TIES for Adoption Program, UCLA. Los Angeles, CA. January 2002-May 2004.

Supervisors: Jill Walker, Ph.D.; Jill Waterman, Ph.D.

Co-led a support group of 3-10 year old children prenatally exposed to drugs and alcohol who were in the process of adoption. Responsibilities included organizing playtime activities, and facilitating discussions about adoption.

Teaching Experience

Guest Lecturer, Virginia Commonwealth University, Richmond, VA

Learning & Cognition. (2008, July).

Lecture: The Social Information Processing Model: How youth solve social problems.

Adolescence. (2008, July).

Lecture: Adolescent Social Problem-Solving: What is it, How do we measure it? What are the implications for violence prevention?

Publications:

Farrell, A.D., Henry, D., Schoeny, M., **Bettencourt, A.**, Tolan, P. (in press). Individual Beliefs as Moderators of the Impact of Peers and School Norms on Aggression in Middle School Students, *Journal of Clinical Child and Adolescent Psychology*.

Farrell, A. D., Mays, S., **Bettencourt, A.**, Erwin, E. H., Vulin-Reynolds, M., & Allison, K.W. (in press). Environmental Influences on Fighting Versus Nonviolent Behavior in Peer Situations: A Qualitative Study with Urban African American Adolescents. *American Journal of Community Psychology*.³

Farrell, A.D. & **Bettencourt, A. F.** (2008) *Development and Evaluation of Measures of Effective Nonviolent Behavior in Urban Adolescents: Not Just the Opposite of Violent Behavior*. Manuscript under revision.

Sullivan, T.N., Farrell, A.D., **Bettencourt, A.F.**, & Helms, S.W. Core Competencies and the Prevention of Youth Violence. (2008). In N.G. Guerra & C.P. Bradshaw (Eds.), *Core Competencies to promote positive youth development and prevent adolescent risk behaviors. New Directions for Child and Adolescent Development*, 122, 33-46.

Farrell, A.F., Erwin, E. H., **Bettencourt, A.**, Mays, S., Vulin-Reynolds, M., Sullivan, T., Allison, K., Kliewer, W., & Meyer, A. (2008). Individual Factors Influencing Effective Nonviolent Behavior and Fighting in Peer Situations: A Qualitative Study with Urban African American Adolescents. *Journal of Clinical Child and Adolescent Psychology*, 37, 397-411.

Bettencourt, A. F. (2006). *The Long-term Effects of Direct Verbal Victimization and Family Support on Anxious and Aggressive Behaviors in urban adolescents: Do Mean Words Have a Lasting Impact?* Unpublished Master's thesis, Virginia Commonwealth University.

Conference Presentations:

Bettencourt, A.F., Farrell, A.D., & Sullivan, T.N. *Latent Profile Analysis of Patterns of Adolescent Adjustment.* Poster to be presented at the biennial meeting of the Society for Research on Adolescents in March 2010, Philadelphia, P.A.

Bettencourt, A. F., Mays, S. A., Kramer, A. L., Kliwer, W., & Farrell, A. D. (2009, April). *Assessing Adolescent Values and Goals: A Confirmatory Factor Analysis of the Internalized Values and Goals Scale.* Poster presented at the biennial meeting of the Society for Research on Child Development, Denver, CO.

Kramer, A. M., Mays, S. A., **Bettencourt, A. F.,** Kliwer, W., & Farrell, A. D. (2009, April). *Does what parents say matter? Developing a measure of parental messages about aggression and nonviolence.* Poster presented at the biennial meeting of the Society for Research on Child Development, Denver, CO.

Sullivan, T.N., **Bettencourt, A.,** Helms, S.W., Lotze, G., Mays, S., Wright, S., & Sutherland, K. (2009, April). *Factors impacting effective non-violent and fighting responses to problematic situations among adolescents with disabilities.* Poster presented at the biennial meeting of the Society for Research on Child Development, Denver, CO.

Titchner, D. K., Pugh, K.L., Mays, S.A., **Bettencourt, A. F.,** Kramer, A. M., & Farrell, A.D. (2009, April). *Development and Evaluation of an Interview-based Measure of Social-Cognitive Processes Related to Aggression.* Poster presented at the biennial meeting of the Society for Research on Child Development, Denver, CO.

Bettencourt, A.F., Pugh, K.L., & Farrell, A.D. (2008, November). *A novel approach to the measurement of adolescents' cognitive patterns in response to peer provocation situations: The Articulated Thoughts in Simulated Situations Paradigm.* Poster presented at the annual meeting of the Association for Behavior and Cognitive Therapy, Orlando, Fl.

Marder, A.M., Borntrager, C., Southam-Gerow, M.A., Hourigan, S., **Bettencourt, A.,** Brown, R., Helms, S., Chorpita, B.F., & Weisz, J. R. (2008, November). *Relationships between therapist attitudes toward evidence-based treatments and initial adherence to prescribed interventions with youth.* Poster presented at the annual meeting of the Association for Behavior and Cognitive Therapy, Orlando, Fl.

Bettencourt, A.F., Mays, S.A., & Farrell, A.D. (2008, May). *Gender Differences in Internal Factors Influencing Effective Nonviolent Behavior and Aggression in Peer*

Situations. Poster presented at the annual meeting of the Society for Prevention Research conference, San Francisco, CA.

Bettencourt, A.F., Farrell, A.D., & Kliwer, W. (2008, March) *Are Skills Taught in Prevention Programs Truly Effective: A Comparison of Adolescents Versus Experts Perceptions of Effectiveness*. Poster presented at the biennial meeting of the Society for Research on Adolescence, Chicago, IL.

Bettencourt, A.F. & Farrell, A.D. (2006, November). *The Long-term Effects of Direct Verbal Victimization and Family Support on Anxious and Aggressive Behaviors: Do Mean Words Have a Lasting Impact?* Poster presented at the annual meeting of the Association for Behavior and Cognitive Therapy, Chicago, IL.

Bettencourt, A.F., Mays, S., Vulin, M., Erwin, E., & Farrell, A. (2006, November). *Barriers and Supports to Prosocial and Aggressive Coping in an Urban Environment: What factors help youth respond effectively to problems?* Poster presented at the annual meeting of the Association for Behavior and Cognitive Therapy, Chicago, IL.

Hershberger, A. M., **Bettencourt, A.F.**, Brown, R.C, McLeod, B.D., Southam-Gerow, M.A. & Weisz, J.R. (2006, November). *The PASCET Program: Therapist Adherence & Treatment Outcomes* Poster presented at the annual meeting of the Association for Behavior and Cognitive Therapy, Chicago, IL.

Hershberger, A. M., **Bettencourt, A.F.**, Brown, R.C., Bambacus, E.S., Southam-Gerow, M. A. & Weisz, J.R. (2006, August). *The PASCET Program: Therapist Adherence & Treatment Outcomes* Poster presented at the annual meeting of the American Psychological Association, New Orleans, LA

Bettencourt, A. F. & Farrell, A.D. (2005, November). *Factors Effecting Urban Adolescents' Prosocial versus Aggressive Responses to Problem Situations: Opposite Sides of the Same Coin or Different Phenomena?* Poster presented at the annual meeting of the Association for Behavior and Cognitive Therapy, Washington, D.C.

Hershberger, A.M., **Bettencourt, A.F.**, McLeod, B.D., Southam-Gerow, M.A. & Weisz, J.R. (2005, August). *Measuring integrity in an EBT for childhood depression: Pilot test of the PASCET- Manual adherence scale (P-MAS)*. Poster presented at the annual meeting of the American Psychological Association, Washington, D.C.

Professional and Honor Societies:

Society for Research on Adolescence (SRA)
Society for Research on Child Development (SRCD)

Nov. 2007-Present
Jan 2009- Present