

**REDUCING AGGRESSION IN CHILDREN THROUGH A
SCHOOL-BASED COPING POWER PROGRAM**



By

ASIA MUSHTAQ

Dr. Muhammad Ajmal

National Institute of Psychology

Centre of Excellence

Quaid-i-Azam University

Islamabad-Pakistan

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ASIA MUSHTAQ

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**National Institute of Psychology
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Quaid-i-Azam University
Islamabad-Pakistan**

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FOREIGN EVALUATOR

Jennifer E. Lansford, Ph.D.

Research Professor

Duke University

Center for Child and Family Policy

Durham, NC 27708-0545, USA

Karen L. Bierman, Ph.D.

McCourtney Professor of Child Studies

Director, Child Study Center

The Pennsylvania State University

University Park, PA 16802, USA

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By

ASIA MUSHTAQ

Approved by

(Dr. Naeem Tariq)
Supervisor

(Dr. John E. Lochman)
Co-Supervisor

External Examiners

(Dr. Tanvir Akhtar)
External Examiner

(Dr. Syed Sajjad Hussain)
External Examiner

(Dr. Anila Kamal)
Director, NIP

CERTIFICATE

Certified that Ph.D. dissertation titled “**Reducing Aggression in Children through a School-Based Coping Power Program**” prepared by **Ms. Asia Mushtaq** has been approved for submission to Quaid-i-Azam University, Islamabad.

(Dr. Naeem Tariq)

Supervisor

(Dr. John E. Lochman)

Co-supervisor

Dedicated to

My Loving Parents

&

Children

"Khadija" and "Muhammad"

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ABSTRACT

Aggression is a characteristic feature of many psychiatric disorders (e.g., conduct disorder, impulse control disorders and some personality disorders). Despite the tremendous work in evidence based practices for childhood behavior problems, and efficacy of the cognitive behavioral interventions for aggressive, disruptive and conduct problems in Western countries, there was an extreme scarcity in Pakistan for empirical support for such interventions. The present research aims to culturally adapt, implement and evaluate a cognitive behavioral intervention program (Coping Power Program) for Pakistani school children with aggressive problems. This represents the very first intervention study conducted in Pakistan for the reduction of child aggression. The Coping Power program is an indicated prevention program for at-risk aggressive children, and had demonstrated short and long-term effects on antisocial outcomes. The present research consists of three studies. Study-I designed for cultural adaptation and translation of Coping Power Program (CPP) -child component and outcome measures, according to a heuristic model proposed by Barrera and Castro (2006). Cultural mismatches were identified in the content and structure of the CPP with main focus to maintain the core contents of the program. Islamic concepts and teachings with cultural elements were added in the adapted version of CPP. A pilot test was conducted for CPP adapted Urdu version and outcome measures. A sample of 37 fourth and fifth grade boys, with their parents and teachers participated in the study. Five at risk aggressive boys participated in Coping Power intervention group condition. The results indicated moderate to good reliability in all outcome measures, and CPP adapted version was considered as an

effective intervention program to implement on Pakistani children with some modifications. Pilot testing of CPP demonstrated improvements in targeted aggressive boys. Study-II is designed to evaluate the contextual social cognitive model of aggression, which serves as a conceptual framework for the Coping Power Program. Initially 859 fourth grade boys were screened out to identify the aggression severity group (nonaggressive, moderately aggressive and severely aggressive children). 401 children (Mean age =9.44, SD=0.50) were identified as potential participants (180 nonaggressive, 100 moderately aggressive, and 121 severely aggressive). Four domains (self-regulation, social and cognitive competencies, school bonding, and parenting practices) were assessed with Urdu translated outcome measures. Results indicated significant differences among all groups; severely aggressive children exhibited elevated levels of reactive and proactive aggression, poor social cognitive processes, and experienced more corporal punishment from parents as compared to the other groups. Peer rejection was also linked with severe behavior problems and social cognitive processes of the moderately aggressive and severely aggressive children. Study-III was designed to evaluate the effectiveness of abbreviated version of Coping Power Program (25 Child group sessions in adapted version). The purpose of the study was to determine the extent to which CPP is capable of reducing behavior problems and improving prosocial and competent behavior in children, when delivered in a different culture i.e., Pakistan. With randomized control trial (RCT) of pre- and post-testing, 112 fourth grade boys were allocated to Coping Power intervention condition (n=51) and control condition (n=61). Intervention took place during the fifth grade year, at the time of transition to middle school. Pre- and post-treatment were collected from child, parent and teacher

to assess the intervention effects. Analyses of Covariance (ANCOVAs) were used in order to adjust the intervention effects for scores on the baseline measures. Within group analyses of variance (ANOVAs) were further used to explain the interaction effects which were significant in ANCOVAs. Effect sizes are calculated for both groups independently, i.e., between groups and within subjects. Results showed significant differences in measures of all domains. A significant reduction was found in aggression, and impulsivity for the intervention group as compared to the control group. Boys who received Coping Power Program intervention also showed improvements in behavior, social skills and social cognitive processes, with better anger control and problem solving strategies in comparison to control children. The study provides preliminary evidence supporting the effectiveness of Coping Power Program for Pakistani children. Despite its limitations, the results of this study are promising, and suggest that CPP is an effective intervention to reduce behavior problems and promote healthy and positive behavior in children, even when implemented in different contexts with greater potential for violence exposure. The implications are discussed for the implementation of strategies aimed at preventing aggressive behavior in school.

Chapter I**INTRODUCTION**

Aggression, disruptive, and conduct related behavior problems in children and adolescents are central issues in our era. Over the past 90 years, ample research has been conducted to examine the early onset of aggression and conduct problems from multiple perspectives. Aggression in children is complex, heterogeneous condition with diverse etiologies and consequences (Connor, 2002).

Large number of disturbed children who referred to treatment centers have antisocial behavior, i.e., disruptive, aggressive and conduct problems, and have hostile relationships with family members and peers. The persistent and stable patterns of their aggressive behavior are extremely difficult to treat (Kazdin, 1987; Patterson, 1979; 1982). It is well documented in empirical data that aggression in children appear to persist over time and across generations (Huesmann, Eron, Lefkowitz, & Walder, 1984; Moffitt, 1993; Olweus, 1978) and also predicts more serious antisocial outcomes, e.g., delinquency, hostility, substance abuse, and rule breaking in the adolescent and adulthood (Achenbach, Conners, Quay, Verhulst, & Howell, 1989; Huesmann et al., 1984; Moffitt, 1993; Patterson, DeBaryshe, & Ramsey, 1989).

DEFINING AGGRESSION

Aggression is not only a familiar word, but also an important concept to understand human behavior. A layperson often talks about “good” or “healthy” aggression as compared to “bad” aggression. However, social scientists usually talked about the negative aspects of aggression. In conversation, the word “aggressive” is used to define a person assaulting another. The word “aggression” is used to a wide range of behaviors that seem to be related and different from each other (Geen, 1990). Johnson (1972) observes that the “aggression” has varied meanings. Later on, Martin, Earleywine, Blackson, Vanyukov, Moss, and Tarter (1994) also observed that there has been little agreement found about the definition of aggression in relevant literature.

Buss (1961) proposed a classical definition of aggression “*a response that delivers noxious stimuli to another organism*” (p. 1). Bandura, Calhoun, Allocello, Patterson, Rosenzweigh, and Scott (as cited in Geen, 1990), seem to agree in general with this definition of aggression.

Another definition of aggression is “*any sequence of behavior, the goal response to which is the injury of the person toward whom it is directed*” (Dollard, Doob, Miller, Mowrer, & Sears, 1939, p. 9). However, in theorizing about aggression, the concept of “*intent*” seems unavoidable. Therefore, the construct “*intent*” is usually considered useful in theoretical formulations of aggression. Kagan (1971) defined aggression “*any action intended to harm or punish another person*”.

A concise definition was offered by Baron and Richardson (1994, p. 7), as “*any form of behavior directed toward the goal of harming or injuring another living being who is motivated to avoid such treatment*”. Coie and Dodge (1997, p. 781) also provide a definition of aggression “*behavior that is aimed at harming or injuring another person*”. Hardy and colleagues (1990) define aggression as “*a behavior which is intended to physically injure or verbally attack another person*” (Hardy, Heyes, Crews, Rookes, & Wren, 1990, p. 110). Therefore, the key attributes of an aggressive act according to these researchers is “intention”.

Similarly, Moyer (1987, p. 18) defines aggression as “*an overt behavior involving intent to inflict noxious stimulation or to behave destructively toward another organism*”. According to Lefrancois (1983, p. 363) aggression is “*hostile or forceful action intended to dominate*” and Myers (1994) sees aggression as “*physical or verbal behavior intended to hurt someone*” (p. 244).

According to Parke and Slaby (1983) aggression is a “*behavior that is aimed at harming or injuring another person or persons*” (p. 550). It can be physical or verbal; direct or indirect, and often have similarities with disruptive, conduct and antisocial behavior that “*inflict physical or mental harm or property loss or damage on others, and which may or may not constitute the breaking of criminal laws*” (Loeber, 1985, p. 77).

Another element that has been considered important in drawing a definition of most kinds of aggression is the expectation that a behavior results in harm to the victim or positive expectations to get the desired outcome. Geen (1990) stated that “*an act of aggression could be categorized at least into three features: (a) Aggression consists of*

the delivery of noxious stimuli by an organism to another; (b) the noxious stimuli are delivered with the intent to harm the victim; and (c) the aggressor expects the noxious stimuli will have their intended effect” (p. 3). Archer (1994) added another element of emotion to the act of aggression and stated that physiological changes always accompany aggression.

Aggression is not a simple concept; it is a heterogeneous and broad category of behavior. Aggression is a more complex and encompasses internal state, noxious stimuli, and expectations that it will give a noxious effect.

TYPES OF AGGRESSION

Since aggression is varied phenomenon, so attempts have been made to subtypes aggression into more similar categories. The primary problem with respect to categorizing aggression into different subtypes is to select a parsimonious set of criteria that integrate most forms of aggression. The investigation of aggression in human and animal provides several categories and types of aggressive behaviors.

Overt and Covert Aggression

The subtyping of overt and covert aggression became the focus of attention for many researchers from the last many decades. Overt aggression is “*an openly confrontational act of aggression*” (Connor, 2002, p. 10). The characteristics are physical fights, bullying, rule breaking, using guns and weapons. Covert aggression is “*any*

hidden, furtive clandestine act of aggression” (Connor, 2002, p. 10). Behaviors like stealing, absenteeism, running away and fire setting are the examples of covert aggression. Oppositional defiant behavior lies on the midpoint of this overt-covert continuum.

A meta-analysis of 28 studies to determine underlying dimensions of juvenile aggressive behavior, Loeber and Schmalting (1985) reported 22 studies with child and adolescent psychopathology. They found two poles of behaviors, in 11,603 children and adolescents aged 2-18 years, i.e., overt antisocial behavior and furtive, covert acts. In another study, parent ratings for 8,194 Americans and Dutch children were analyzed to determine the underlying dimensions of antisocial behavior (Achenbach et al., 1989). They found the similar results; two conduct problem factors emerged from the factor analysis, i.e., “aggression” (overt confrontational behavior) and “delinquent” (covert aggressive behavior, substance abuse).

Overtly aggressive children are usually called as “fighters”. The children who have the status of the fighter in schools and home have severe problems in social emotional and academic domains (Loeber & Dishion, 1983).

Reactive and Proactive Aggression

One popular classification for aggression is the “reactive” versus “proactive”. Theoretically, reactive aggression is based on “*frustration-aggression model*” (Dollard et al., 1939) and proactive aggression based on “*social learning theory*” (Bandura, 1973). Usually reactive aggression is conceptualized as “hot blooded”, defensive, unplanned,

angry, and hostile. Proactive aggression is characterized as “cold blooded”, offensive, thoughtful, planned with a goal in mind (Card & Little, 2006; Coie & Dodge, 1986; Dodge, 1991; Dodge & Coie, 1987).

Empirical literature on reactive and proactive aggression has largely focused on assessing elementary school children in community settings. The major focus of research is to investigate social cognition and social information processing in proactive and reactive aggressive children (Crick & Dodge, 1996; Dodge, 1991; Dodge & Coie, 1987). Proactive aggression is correlated with social dominance, whereas reactive aggression is linked with victimization and peer rejection (Dodge, 1991; Schwartz, McFadyen-Ketchum, Dodge, Pettit, & Bates, 1998). Proactive aggression is non-impulsive and controlled, and less affective instability, and low levels of arousal. Reactive aggression is hostile, impulsive, with dis-inhibition and more affective instability and high levels of body arousal (Vitiello & Stoff, 1997). It seems that low levels of cortisol played a role in proactive aggression, whereas high levels of cortisol are linked with display of reactive aggression (Gerra et al., 1997; Moss, Vanyukov, & Martin, 1995).

Reactive aggression occurs more often than proactive aggression, and boys are more likely than girls exhibit either form of aggression (Coie & Dodge, 1997; Dodge & Coie, 1987). Empirical data demonstrated that reactively aggressive children exhibit more emotion dysregulation, have poor social skills, peer rejection, problems with inattention and impulsivity than children with proactive aggression (Dodge, 1991; Dodge, Lochman, Harnish, Bates, & Pettit, 1997).

Verbal and Physical Aggression

In this continuum approach, aggression may be assumed as “physical” or “verbal”; “direct” or “indirect”. Verbal aggression is extremely difficult to define because human speech is so widely varied, even tone of voice can be difficult to classify. McCabe and Lipscomb (1988) define verbal aggression as “*any sentence or phrase standing alone and judged to be a reprimand, harsh command, tattler, tease, insult, rejection, hostile assertion of ownership or priority, callous factual statement, accusation, criticism, obscenity or other expletives*” (p. 393). Physical aggression includes acts completed with physical force or the threat to use physical force, such as kicking, pushing, punching, and pinching, etc. (Coie & Dodge, 1997; Crick & Grotpeter, 1995). Males have more possibility to use physical aggression than verbal aggression (Monks, Smith, & Swettenham, 2003). Young children more often display physical aggression like push, hit, and bite; when they are angry. At preschool age, children have a tendency to display verbal aggression, like shouting, yelling, screaming, and temper tantrums (Coie & Dodge, 1997).

Physical aggression may be proactive or reactive physical aggression. Reactive physical aggression refers to an immediate display of violent behavior, whereas proactive physical aggression is a planned act (Clarke, 2004; Vitaro, Brenddgen, & Tremblay, 2002).

Instrumental and Hostile Aggression

An influential work by Feshbach (1964) was critical in establishing two major types of aggression based on harm. These distinct subtypes were labeled as “*instrumental*” and “*hostile*” aggression. If the injury (to a person or object) was the primary goal of the action (pleasure or satisfaction), it is labeled as “*hostile aggression*”. If the injury was not the main purpose and the action was executed for reward other than the pleasure of injuring, then it is labeled as “*instrumental aggression*”. Instrumental aggression provides some reward to the aggressor that is not related to the victim’s distress (Feshbach, 1964). The intention behind hostile aggression is to cause injury or pain (either physical or psychological).

Instrumental aggression has a strong cognitive component. The person is fully aware of the goals or consequences and has a conscious elaborate plan for reaching it (Ross, 1987). Research has mixed support for these two aggression types (Hartup & de Wit, 1974). Hartup (1974) investigated both types in peer interaction of preschooler and elementary school children. He found age and gender as significant factors. He concluded that with age, instrumental aggression decreased, whereas hostile aggression increased. Boys demonstrated more hostile aggression than girls. He did not find gender differences for instrumental aggression in the sample. Willis and Foster (1990) also reported that peers negatively assessed both types of aggression.

Predatory and Affective Aggression

The characteristics of “*predatory*” and “*affective*” aggression are very similar to “reactive” and “proactive” aggression. The distinction lies in the conceptual origin of these two dimensions. The reactive – proactive aggression has its roots in social psychological research on human. The theoretical roots of predatory and affective aggression lie in neurobiological research on aggression in animals (Connor, 2002).

Predatory aggression is a motivated, goal directed behavior that is executed with planning and self-control (Moyer, 1976). Affective aggression is impulsive, poorly planned and intended to injure the victim with little or no advantage (Feshbach, 1964; Vitiello, Behar, Hunt, Stoff, & Ricciuti, 1990). Affective aggression is usually associated with a strong negative internal emotional state. This type of aggression is called “angry”, “hostile” or “affective” aggression and its main goal is injury or harm to provocateur.

Relational Aggression

In recent years, more attention has been focused on gender differences in aggression. The investigations have focused on a unique form of aggression that may be more specifically related to girls. Relational aggression is intentional actions to harm others through manipulation (Crick, 1995). In relational aggression, usually relationship functions as the medium to harm, in which malevolent secrets, gossips or lies are spread intentionally, with a use of snubbing, ignoring, and shunning a peer (Crick & Grotpeter, 1995).

According to Crick, Casas, and Mosher (1997) relational aggression can be seen as direct form of aggression, e.g., hitting, pushing and name-calling) and indirect form of aggression, e.g., gossips or lies, rumors, ignoring (Bjorkqvist, 1994; Bjorkqvist, Lagerspetz, & Kaukiainen, 1992). Research indicates that relational aggression is the common form of aggression seen in preschooler and usually in girls (Crick et al., 1999; Crick & Grotpeter, 1995).

DEVELOPMENTAL TRAJECTORY OF AGGRESSION

A developmental trajectory is a portion of lifespan during which several developmental tasks are worked on (Haymans, 1994). Aggressive, disruptive, conduct related behavior problems and delinquency display both significant changes and stability over the lifetime (Huesmann et al., 1984; Loeber & Stouthamer-Loeber, 1998; Rutter, Kim-Cohen, & Maughan, 2006). A developmental pathway explain the adaptation process of a child (Cummings, Davies, & Campbell, 2000). This adaptation is to gain mastery in the physiological, social, emotional, and cognitive domains of functioning.

Two theoretical models have been considered important in designing studies of developmental trajectories of antisocial behavior, i.e., aggression, delinquency, conduct problems. One is “*social interaction perspective*” (Patterson et al., 1989; Patterson & Yoerger, 1997) based on an *early-onset* to *late-onset*, and the other is “*the developmental taxonomy theory*” (Moffitt, 1993) proposed *life-course persistent* versus *adolescence-limited* pathway. These two theoretical models have been extended to other behavior

problems, like disruptive behavior, delinquency, conduct problems, physical aggression, externalizing/internalizing behavior, bullying, oppositional behavior problems (Aguilar, Sroufe, Egeland, & Carlson, 2000; Broidy et al., 2003; Huesmann, Dubow, & Boxer, 2009; Lahey et al., 2006; Lansford et al., 2006; Martino, Ellickson, Klein, McCaffrey, & Edelen, 2008; Odgers et al., 2008; Patterson & Yoerger, 1997; Pepler, Jiang, Craig, & Connolly, 2008; Xie, Drabick, & Chen, 2011).

The “*early-onset continuous adaptive pathway*” is observed when a child shows his persistent competence for adjustment when encounter the risk. The “*early-onset continuous maladaptive pathway*” is seen when a child shows an increase in early maladjustment when encounter the varying levels of risk. The “*resilient pathway*” occurs when a child shows adjustment when encounter to varying levels of risk. The “*late-onset maladaptive pathway*” is seen when a child shows an early adjustment and that becomes maladjustment when exposed to varying levels of risk (Bloomquist & Schnell, 2002).

Children who display early-onset of aggression and conduct problems have been identified as “early starter” (Patterson, Capaldi, & Bank, 1991), “life-course persistent” (Moffitt, 1993), or “early-onset/persistent” (Aguilar et al, 2000). These children are not skilled in developmental tasks and has early onset and persist in antisocial behavior throughout the lifespan (Matthys & Lochman, 2010). According to Patterson and colleagues (Patterson, Forgatch, Voerger, & Stoolmiller, 1998), antisocial behavior of these “early starters” is a developmental attribute that remains consistent throughout their life. Early manifestation of antisocial behavior often predicts later manifestation of antisocial behavior. They found that severity of childhood behavior problems are linked

with early arrest before the age of fourteen and early arrest is also linked to criminal behavior at the age of eighteen. Several cross sectional and longitudinal studies have identified an “early-starter” or “life-course persistent” group of children who are consistently aggressive during childhood, adolescent and adult years (Broidy et al., 2003; Dodge, Coie, & Lynam, 2006; Moffitt, Caspi, Rutter, & Silva, 2001).

Moffitt (1993) explored epidemiological data and found that at the age 11, the prevalence of antisocial behavior in boys is around five percent, but at the age of 15 it increases up to 32%. The terms “late starters” (Patterson et al., 1991), “adolescent-limited” (Moffitt, 1993), or “adolescence-onset” (Aguilar et al, 2000) used for the persons with the “adolescent-onset” of aggression and conduct disorder. Moffitt and Caspi (2001), explored a longitudinal study and found that “life-course-persistent” delinquents could be segregated from the “adolescent-limited” delinquents on risk factors linked with peer problem, IQ, parenting, temperament and neurocognitive functioning.

Aguilar and Colleagues (2000) also differentiated the “early-onset/persistent” and “adolescence-onset” delinquents on the basis of their childhood risk. They found non-significant group differences in child temperament, and early neuropsychological functioning. However, they found significant differences in psychosocial areas, i.e., attachment, child abuse, and parenting behavior. Patterson and Colleagues (1989) also highlight the effect of positive parenting behaviors on children’s risk to trap in the early-starter pathway. Farrington (2003) argued that many adolescents who experience serious problems continue their antisocial behavior into adulthood.

THEORETICAL MODELS OF AGGRESSION

Theories about human aggression attempts to explain why certain persons behave the way they do. Discussions of aggression often produce a definition that complements a particular theory.

Biological Models

The models that see the cause of aggression and violence as physical and chemical differences are known as biological or individual theories. Some biologists believe that aggression is “shaped by the brain” (Bylinsky, 1982). This model emphasizes the role of genetics (Archer, 1994), hormones (van Goozen, 2005) and brain structures (Lanza, 1983) that influence emotional control and aggressive behavior. Biological theories of aggression proposed that men are more aggressive than women because of higher testosterone levels (Inoff-Germain et al., 1988; Johnson, 1972). A meta-analysis reported that aggressive men had higher levels of testosterone than nonaggressive men (Archer, Birring, & Wu, 1998). Thus, male violence is associated with their biological based gender identity (Balkan, Berger, & Schmidt, 1980).

Cortisol has been explained as another hormonal correlate of aggression. Low levels of cortisol linked with risk taking behaviors, impulsivity, and fearlessness. Longitudinal data also shown that low levels of cortisol in boys predict aggressive behavior over time (McBurnett, Lahey, Rathouz, & Loeber, 2000; Shoal & Giancola, 2005).

Most children are raised by their biological parents, to whom they are also genetically related, the effect of “nature” and “nurture” normally coincides in individual development. Therefore, adoption studies separate the influence of genetic and environmental factors. Miles and Carey (1997) reviewed 22 twin and adoption studies of aggressive and antisocial behavior and concluded that shared genetic make-up plays a large role. Shared genes were found more powerful than shared environmental influences. Another meta-analysis by Rhee and Waldman (2002) including 51 twin and adoption studies also found substantial effects of genetic similarities and explains 41% of the variance (Van Goozen, Fairchild, Snoek, & Harold, 2007).

According to Plomin, Nitz, and Rowe (1990), some evidences of genetic base to aggressive behavior comes from studying genetically abnormal people. They further added that as compared to normal population these people may show abnormalities in behavior that can be attributed to the genetic defect.

The role of certain neurotransmitters is being investigated as possible factors in the development of violence. Siann (1985) found that an increased levels of neurotransmitters (e.g., noradrenalin, dopamine and serotonin) in the limbic system in the brain also linked with fighting behavior in animals. Valzelli (1981) found a connection between serotonin levels and aggressive behavior.

Central nervous system impairment, for example, may retard learning to inhibit antisocial behaviors and frontal lobe deficits are associated with increased irritability and loss of concern for one’s actions (Buikhuisen, 1987). Slow alpha waves have been

suggested as predictor of delinquency and they may be associated with low arousal and impaired avoidance learning (Turner, 1994).

Different studies on animals suggest that aggression is controlled by different subsections of the brain (e.g., the septum, the amygdala, and the hypothalamus). Studies on rats suggest that lesions of the lateral septum increase the predatory aggression and decline the social aggression (Hardy et al., 1995). Biological theories explain aggressive behavior as a psychopathology—a disorder in behavior or physical makeup of a person.

Learning Models

Instinct-related explanation of aggression was criticized. However the idea that there is a force within the organism leads to aggressive behavior to an influential line of research that postulated an aggressive drive. Dollard, Doob, Miller, Mowrer, and Sears (1939) published their book *“Frustration and Aggression”* in an attempt to explain some of Freudian psychoanalytic concepts into learning theory. They postulated *“frustration-aggression hypothesis”*. The core assumption of Dollard et al. (1939)’s theory was, *“aggression is always a consequence of frustration”*, then they elaborated into two points; (a) *“the occurrence of aggressive behavior always presupposes the existence of frustration”* and (b) *“the existence of frustration always leads to some form of aggression”* (p. 1). They defined frustration as *“an interference with the occurrence of an instigated goal-response at its proper time in the behavior sequence”* (p. 7). The experience of frustration activates the desire for goal attainment and aggressive behavior results from drive to remove the source of the interference.

In the first version of the frustration-aggression hypothesis, Dollard and colleagues (1937) claimed that frustration would always trigger aggression and that aggression would always be attributed to a preceding frustration. However, it became clear soon that not every frustration leads to an aggressive response. Alternatively, a frustrated individual may withdraw from the situation, become upset or find a substitute object to express his aggressive feelings (Gross, 1992). The early deterministic approach between frustration and aggression was changed in a probabilistic version by Miller (1941). He refined the “*frustration-aggression theory*” and stated that “*frustration produces instigations to a number of different types of response, one of which is instigation to some form of aggression*” (p. 338).

Berkowitz (1962) reshaped “*the frustration-aggression hypothesis*” through some modifications. Berkowitz (1981; 1989; 1993) proposed that negative affect in the form of anger, and their cognitive appraisals are important mediators between frustration and aggression. Frustration leads to aggression only when it arouses a negative affective state. Berkowitz and Harmon-Jones (2004) defined anger as “*a syndrome of relatively specific feelings, cognitions, and physiological reactions linked associatively with an urge to injure some target*” (p. 108).

Social Learning Model

The other major theoretical formulation is the “social learning theory” of Bandura (1961; 1963; 1980). This theory postulated that aggression is an acquired instrumental behavior that is controlled by external rewards. According to Bandura’s theory (1963), an

individual acquires a repertoire of aggressive behavior from three main sources: (1) biological factors, (2) observational learning, and (3) direct experience. Biological factors include the brain, genetic traits and body chemistry, which equip people with neurophysiological mechanism whereby they behave aggressively. Observation of others (modeling) has been frequently a source of learning aggressive behavior. The individual witnesses an aggressive act and knows how to perform it. This experience greatly increases the probability that an observer will imitate the aggressive behavior. The individual also learns aggressive responses by direct experience which includes instructional and accidental trial and error learning (Albercht, Chadwick, & Jacobson, 1986).

Many models in a person's life influence behavior; Bandura (1976) identified three major pathways through which social learning processes take place in modern societies. These are family, subculture (such as peer groups), and culture (for example, television and movies). He claimed that "*aggression in children is influenced by the reinforcement of family members, the media, and the environment*" (p. 206). Therefore, one may learn violent behavior through modeling or reinforcement of behavior in the family (Farrington, 1991; Roopnarine, Cochran, & Mounts, 1988), in peer groups (Cairns & Cairns, 1991), and from television and movies (Huesmann, Eron, Berkowitz, & Chaffee, 1992). Berkowitz (1983) recognized that reinforcements might alter the strength of an aggressive display.

Social Cognitive Model

Perhaps the best known social-cognitive theory of aggression is that which has been explicated by Kenneth Dodge (1986), Dodge & Frame (1982), Steinberg & Dodge (1983) and Crick & Dodge (1994). Social cognitive processes seem to include encoding and interpreting environmental cues (McFall's decoding process), deriving a behavioral response (Simon's problem solving), and enacting the chosen response in behavior (McFall's encoding process). The social information processing model integrates and extends these ideas in a logical manner.

Social Information Processing Model

The way children think about aggression also may affect their behavior. Differences in aggression among children may be due to differences in social cognitive processes (Feshbach, 1970). Kenneth Dodge (1986) formulated "*social information processing model*" to describe the role of social cognition. He proposed that people born with have biologically determined capabilities and then shaped their behavior according to their past experiences, rules and schemas. Dodge and Crick (1990) discuss that "*skillful processing at each step will lead to competent performance within the situation, whereas biased or deficient processing will lead to deviant, possibly aggressive, social behavior*" (p. 13).

Model of Social Information Processing

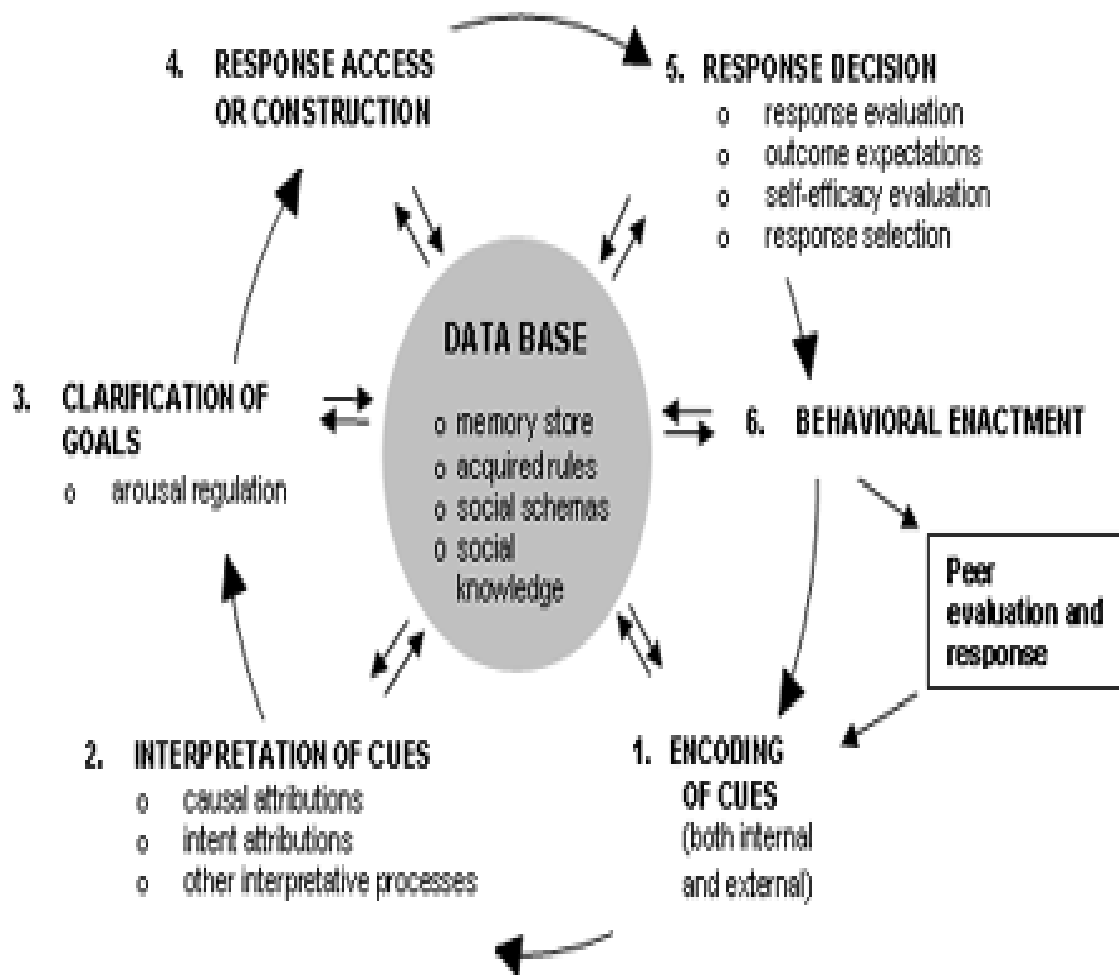


Figure 1. Reformulated social information processing model of children's social adjustment (Crick & Dodge, 1994, p. 76)

Crick and Dodge (1994; Dodge, & Pettit, 2003) reformulated this model to reflect advances in conceptual and empirical innovation. Social information processing (SIP)

model is based on six sequential processing steps. These steps are hypothesized to occur in “*real-time*”. These cognitive steps are always connected to a “database” of social knowledge, which is formed by the individual’s social experiences and linked to memory, acquired rules, social schemas, and social knowledge (Crick & Dodge, 1994).

SIP is considered as the most well researched and popular model for understanding the social cognitive based processes behind childhood aggression. The extensive empirical data established the links between deficiencies in SIP and aggressive behavior in children and adolescents (Crick & Dodge, 1996; Dodge, 1985; 1986; Dodge & Crick, 1990; Dodge et al; 1997; Dodge, Pettit, McClaskey, & Brown, 1986; Kendall, 1995; Ladd & Crick, 1989; Lochman & Dodge, 1994; Slaby & Guerra, 1988).

1. Encoding Situational and Internal Cues

The first step in social information processing is encoding the social cues (i.e., the internal and the external in the environment). Encoding means the “*formation of a representation of an external stimulus in the memory system*” (Kintsch, 1977, p. 48). The child receives cues through sensory processes and then perceives them. Encoding the cues involve attending to appropriate and relevant cues and information, using rehearsal and mnemonic devices in order to store the information. The child performs this task efficiently, for the encoding occurs in real time. Also, the child performs in a manner that is free from debilitating biases. Paying maximum attention to relevant cues and in an unbiased manner is the central feature of encoding (Dodge, 1986).

Research has been demonstrated that aggressive children have selective attention with more focus on hostile cues, and have difficulty in shifting their focus to non-hostile or prosocial cues (Coy, Speltz, DeKlyen, & Jones, 2001; Dodge & Newman, 1981; Dodge & Tomlin, 1987; Gouze, 1987).

2. Interpretation and Mental Representation of Cues

The second step in the model involves evaluation and interpretation of the cues that were encoded in step-1. This component of the model has received more research attention and empirical support than any other component. At this point, the child interprets the intentions of others, and makes attributions about the causes and relies on fewer cues to interpret the event (Matthys, Cuperus, & Van Engeland, 1999; Milich & Dodge, 1984). Aggressive children are supposed to have a hostile interpretation bias to ambiguous cues (Crick & Dodge, 1994; Dodge, 1986). Aggressive children are biased toward making attributions of hostility. In ambiguous situations, aggressive children are more likely assumed that the hurt was intentional and motivated by hostility than nonaggressive children (Dodge, 1980; 1986; Dodge, Bates, & Pettit, 1990; Dodge & Coie, 1987; Dodge & Frame, 1982; Dodge, Murphy & Buchsbaum, 1984; Lochman, 1987; Lochman & Dodge, 1998; Slaby & Guerra, 1988; Waas, 1988; Waldman, 1988).

3. Clarification or Selection of a Goal

In the third step, the children generate possible goals or select desired outcome for a new social situation. Crick and Dodge (1994) described goals as “*focused arousal state*

that function as orientations toward producing a particular outcome” (p. 87). The goal given high priority by the child is likely to elicit related behavior strategies, e.g., a retaliation goal is associated with aggressive strategies.

According to SIP model (Crick & Dodge, 1994), children carry their goal orientations to the peer situation and they revise and construct new goals to face new social stimuli. Although not all social situations change a child’s existing goals, whatever goal exists, or is formed, can serve an internal or external purpose. An internal goal may be feeling happy, whereas an external goal may be a state or outcomes (Crick & Dodge, 1994). The social goals developed by aggressive children during social interactions are also more maladaptive than nonaggressive children (Salmivalli, Ojanen, Haanpää, & Peets, 2005). Research has shown that faults at goal selection step may result in more aggressive and antisocial goal selection (Asher & Hymel, 1981; Coy et al., 2001; Crick & Dodge, 1989; Crick & Ladd, 1990; Kokko & Pulkkinen, 2005; Matthys et al., 1999).

4. Response Access or Construction

The fourth step in processing social information is a response search for a social problem. Once the child has represented the encoded information in a meaningful way, he can engage in searching for possible behavioral responses (Dodge, 1986). . Children search long term memory for possible behavioral strategies for the situation. It is the case that deviant responses may be generated either as a function of deviant processing or inadequate and biased searching.

Shure and colleagues found a negative relationship between the levels of aggressive behavior and the numbers of responses accesses skill (Shure, Newman, & Silver, 1973; Shure & Spivack, 1980; Spivack & Shure, 1974). When responses are formed, rejected aggressive children access more aggressive response to social problem (Renshaw & Asher, 1983).

5. Response Decision

The fifth stage, response decision, requires a range of cognitive skills, including generating alternative responses, considering the consequences of different actions, and planning to achieve the desired outcome. This type of cognitive activity overlaps closely with social problem solving. When a particular response is decided, then the child should be confident that the behavior would result in a positive way (Crick & Dodge, 1994; Dodge, 1986).

Crick and Ladd (1990) found that socially maladjusted children evaluate aggressive response more favorably than prosocial responses. Various SIP studies demonstrate that aggressive children have positive expectations of aggression than nonaggressive children (Asarnow & Callan, 1985; Crick & Ladd, 1990; Deluty, 1983; Garber, Quiggle, Panak, & Dodge, 1991; Hart, Ladd, & Burleson 1990; Lochman & Dodge, 1994; Perry, Perry, & Rasmussen, 1986; Quiggle, Garber, Panak, & Dodge, 1992; Slaby & Guerra, 1988).

6. Behavioral Enactment

Finally, at the last step, behavioral enactment, the children need the social skills, both verbal and non-verbal to perform the actions; they have decided and best suited to gain the outcome (i.e., social interaction). Behavioral protocols, and scripts, are connecting to verbal and motor skills. These skills are presumably acquired in development through rehearsal, feedback, and practice. Aggressive children demonstrate relatively poor skills for execution of competent responses to social situations (Dodge, McClaskey, & Feldman, 1985). Dodge and colleagues found that aggressive children are lacking competent enactment skills to initiate a friendly interaction for peer group entry (Dodge et al., 1986; Gottman, Gonso, & Rasmussen, 1975).

According to Dodge (1986) social information processing model is a transactional one. That is, it is presumed that the process does not terminate at the point of enactment because it involves another person. The cues that a child would use to alter his behavior, however, constitute new input from the environment. A peer's behaviors, which are cues to the first child, are also enactments by the peer. It must be remembered that the peer is also engaged in social information processing. If a child responds in an inappropriately aggressive way to a social situation, the peer may be likely to process this information in a way which leads him or her to label the child as deviant and respond by rejecting the child. As a result, the child may acquire even further social difficulties. In this way, the cognitive operations of each child interact with each other's behavior in a transaction.

CONTEXTUAL SOCIAL COGNITIVE MODEL OF AGGRESSION

A clear model of the factors that contribute to the development of behavioral problems makes it possible to specify targets and goals for interventions to prevent or treat them (Holmbeck, Greenley, & Franks, 2003; Lochman & Gresham, 2009). Several explanations for the development of aggression has been proposed, ranging from evolutionary theories that emphasized the adaptive nature of aggression (Cairns & Cairns, 2000) to social cognitive models that emphasized the importance of environmental influences (Bandura, 1977). Numerous prevention and intervention models for aggression are drawn from ecological theory of Bronfenbrenner (1989). One of the greatest challenges for developmental scientists is to explain and integrate the factors associated with the development of aggression. One such framework is the “*contextual social cognitive model*” (Lochman & Wells, 2002a) that demonstrates how anger develops in children and results in aggressive response.

Lochman and colleagues (Lochman, 2006; Lochman, Powell, Whidby, & FitzGerald, 2006; Lochman & Wells, 2002a; 2002b; Lochman, Wells, & Lenhart, 2008; Lochman, Whidby, & FitzGerald, 2000) have proposed a model that elaborates on social cognitive processes and key contextual factors that are most salient to the development of aggression (see Figure 2). This model is influenced by Novaco’s (1978) work with aggressive adults and Crick and Dodge’s (1994) social information processing model.

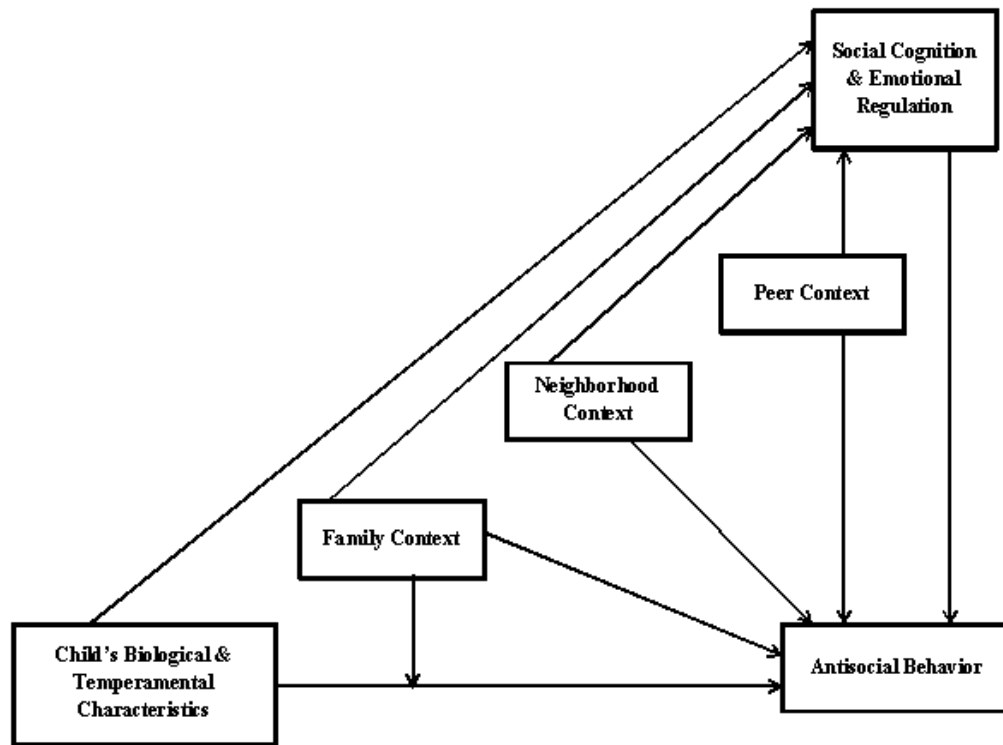


Figure 2. Developmental sequence of stacking of problem behaviors in children with disruptive behavior disorders (Lochman & Greham, 2009, p. 33).

This model theorizes that children’s social cognitive processes arise from the inherent biological and temperamental features with which they are born, shaped, and influenced by the contextual influences they encounter in their family, peer, and neighborhood (Powell et al., 2011). Across studies of aggression, this model identified two potential mediators (i.e., child factors and contextual factors) of adolescent behavior problems, such as aggression, disruptive, conduct problems, substance abuse, externalizing behavior problems (Figure 3).

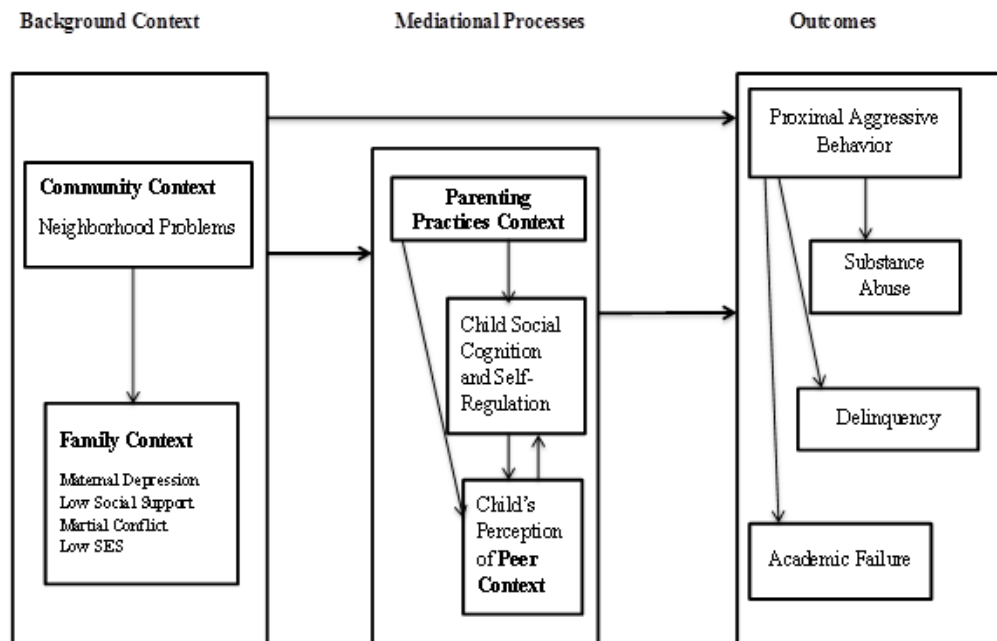


Figure 3. Contextual social cognitive model (Lochman, 2004; p. 313).

1. Child- Level Factors

The contextual social cognitive model focuses on how a child responds to interpersonal conflicts or frustration. The child- level factors are conceptualized as a model of anger arousal (Lochman, Nelson, & Sims, 1981). Child level factors include:

Biological and genetic factors: Neuropsychiatric genetic research is increasingly recognizing importance of genetic factors in aggression and related behaviors. These influences appear strongest for overt aggression, covert and oppositional behaviors (Guerra et al., 1997; Hewitt, Silbert, Neale, Eaves, & Erickson, 1992). Hormones' level, brain structure, and heredity also play a role in the development of aggression in children.

Temperament: Temperament is defined as “*an individual’s characteristic style of emotional and behavioral response in a variety of differing situations and to a variety of differing environmental stimuli*” (Prior, 1992). Temperament has heritable, biologically based aspects as well as environmentally mediated aspects. Cross-sectional and longitudinal research document a relationship between difficult temperament (i.e., negative emotionality, low inhibitory control, fearlessness, and sensation seeking, and over activity) and generalized psychopathology, including conduct problems in childhood, adolescence and adulthood (Caspi, Henry, McGee, Moffitt, & Silva, 1995, Caspi & Siva, 1995; Giancola, Mezzich, & Tarter, 1998).

Social cognition: Children with behavior problems are deficient in social information processing skills (Crick & Dodge, 1994). According to the contextual social cognitive model, two distinct sets of cognitive processes are at work during an interpersonal interaction: (1) the child’s perceptions and attributions of the problem (i.e., anger arousal and social cognition), (2) the child’s plan for response to the situation (i.e., social cognition). Lochman and his colleagues identified distortions in aggressive children’s social cognitive processing, e.g., appraisals, attribution, problem solving strategies, evaluation, and response access (Lochman et al., 2000; 2006; Lochman & Wells, 2002a; 2002b; Lochman, Wells, & Lenhart, 2008).

Crick and Dodge (1994) outline the series of steps taken in processing information in social interactions. These steps include encoding cues, interpreting cues, identifying and clarifying goals, generation of responses, deciding on a response and enacting the response. Test of the model has shown that aggressive children process

information differently in several steps. Aggressive children often have attributional and interpretational biases (Gouze, 1987; Lochman & Dodge, 1994, 1998; Orobio de Castro, Veerman, Koops, Bosch, & Monshouwer, 2002), generate few possible responses to social problems with fewer competent solutions (Dodge, McClaskey, & Feldman, 1985; Dunn, Lochman, & Colder, 1997; Guerra & Slaby, 1989; 1990), expect more positive outcomes of choosing aggressive solution to solve the social problems (Crick & Dodge, 1994; 1996; Dodge, 1986, 1993; Lochman & Dodge, 1994; Pepler, King, & Byrd, 1991; Zelli, Dodge, Lochman, Laird, & The Conduct Problems Prevention Research Group - CPPRG, 1999).

Lemerise and Arsenio (2000) updated the Crick and Dodge model to emphasize how emotional processes are influential like social information processing. They argued that social information will be processed differently when a child is emotionally aroused (e.g., anger, anxious) than when he is calm. Children with emotion regulation problems are more likely to display social information processing difficulties. Children with high impulsivity or emotionality may experience emotional arousal that makes escalating or retaliatory responses a high priority (Lemerise & Arsenio, 2000).

Physiological functioning-Anger arousal: Anger is “*a negative, phenomenological feeling state that motivates desires for actions, usually against others, that aim to warn, intimidate, control, or attack, or gain retribution*” (Kassinove & Tafrate, 2006, p. 4). Anger plays a central role in many aggressive behaviors. Humans generally experience anger when they are frustrated or provoked or their goals are blocked. According to cognitive arousal theories (e.g., Nelson & Finch, 2000) frustrating

or provoking experience produce automatic arousal. During early development, toddlers learn that this arousal is “anger”. Notably, higher rates of physical aggression (more than 70%) are observed in preschoolers (Keenan & Shaw, 2003). Anger is an important element in the “*fight*” and “*flight*” response, which is triggered to protect oneself against the instigating situation (Lazarus, 1991). Anger is an emotion that is often difficult to control due to the intense physiological reactions (i.e., fight or flight). Heart rate and blood pressure are linked to measure anger arousal. Aggressive children tend to have a high heart rate and elevated levels of blood pressure (Scarpa & Raine, 1997). Unregulated emotional distress (i.e., anger and impulsivity) is strongly related to aggression and antisocial behaviors (Block, Block, & Keyes, 1988; Camp, 1977; Swain, Oetting, Edwards, & Beauvais, 1989).

2. Contextual Factor

Environmental factors can initiate aggression and conduct problems in children and serve to escalate or stabilize it in others. The behavior of children shaped and influenced by the contextual influences they encounter in their environment. The contextual factors include:

a) Parent-Level Factors

Parenting practices: Research has shown that children’s aggressive behavior is influenced and maintained by parenting practices. Loeber (1990) theorized that poor parenting practices affect childhood aggression. Then, children’s aggressive behavior

becomes more prevalent, influencing developmental processes that heighten the risk of negative outcomes such as conduct disorder and substance abuse. According to Patterson, Reid, and Dishion (1992), antisocial behaviors during adolescence are the results of a developmental trajectory influenced by familial and personal factors. Harsh and/or inconsistent discipline, poor monitoring, vague commands, low parental involvement, and maternal depression have all been found to contribute to children's aggressive behavior (Downey & Coyne, 1990; Lahey et al., 1998; Patterson et al., 1992; Webster-Stratton & Hammond, 1998).

Coercive parent-child interactions exists in many families of children with aggressive, disruptive and conduct problems (Dumas, LaFreniere, & Serketich, 1995; Moffitt, Caspi, Dickson, Silva, & Stanton, 1996, Patterson et al., 1998). Coercive interactions are remarkably stable; Barkley and colleagues demonstrated that parent-child dyads, who were classified as coercive during the elementary school years, continue to be classified as coercive during adolescent years (Barkley, Fischer, Edelbrock, & Smallish, 1991; Fletcher, Fischer, Barkley, & Smallish, 1996). Problematic parent-child interactions are related to social information processing difficulties that are characteristic of overtly, reactively and proactively aggressive children (Crick & Dodge, 1994). Children who engage in coercive interactions with parents are also likely to engage in similar interactions with peers (Dishion, Duncan, Eddy, Fagot, & Fetrow, 1994; Webster-Stratton & Hammond, 1998; Wolfe, 1999).

Parent's social cognitive processes have also been examined for their contribution to children's aggressive behavior. Additionally, the relation between parenting practices

and aggressive behavior can be thought of a bidirectional, in that poor parenting contributes to the onset of aggressive behavior, which in turn results in negative reactions from the parents and impedes the use of effective parenting practices (Bell, 1977; Bell & Harper, 1977; Fite, Colder, Lochman, & Wells, 2006). Belsky (1984) proposes that parents reacted differently to children of the same gender and age based on the child's temperament and patterns of behavioral responses.

Family interactions: Certain characteristics of the family unit as a whole relate to negative developmental outcomes in children. One such characteristic frequently observed in children with conduct problems. Patterson (1984) found that both older siblings and parents tended to be aversive with clinically referred aggressive children. Garcia, Shaw, Winslow, and Yaggi (2000) discovered that young boys who are involved in conflictual sibling relationships, and who experienced parental rejection, tend to be aggressive at home and school.

Another association has been established between marital problems and childhood behavior problems (Crockenberg & Covey, 1991; Kazdin, 1995; Webster-Stratton & Hammond, 1999). High levels of marital problems can disrupt and adversely affect parenting, especially in low SES families, and combination of all the variables related to the aggressive behavior in children (Crockenberg & Covey, 1991). Inter-parental and family violence also contributes to the development of aggression in children. The higher the levels of verbal and physical violence between parents, more aggressive and socially maladjusted are school age children (Fantuzzo et al., 1991; McCloskey, Figueredo, & Koss, 1995).

Other family characteristics, i.e., the absence of father, divorce/separation, poverty, low parental education, or unemployment can disrupt childhood development, and may relate to the development of aggression (Capaldi & Patterson, 1991; Patterson, Vaden, & Kupersmidt, 1991). Even family size and birth order have been linked to childhood aggression. Kazdin (1995) noted that larger families are associated with more children exhibiting aggression and conduct problems, especially in low SES context.

b) Peer-Level factors

Social competence is defined as *“the ability to achieve personal goals in social interaction while simultaneously maintaining positive relationships with others over time and across settings”* (Rubin & Rose-Krasnor, 1992, p. 285). Dow and Rich (2001) consider social competence *“a psychological term used broadly to reflect the full range of skills, abilities, and cognitive processes that are involved in effective social interactions”* (p. 1555). When children experience serious difficulties in peer relations, the development of social competence may be threatened. Developmental trajectories in aggression development also differ according to characteristics of individuals involved. Haselager, Cillessen, Van Lieshiut, Riksen-Walraven, and Hartup (2002) demonstrate a connection between developmental trajectories in aggression and sociometric status among peers. They explored peer reported and self-reported aggression in 6 to 11 years’ old rejected boys. In cluster analysis, three groups (highly aggressive, moderately aggressive, and nonaggressive) emerged. Discriminant function analysis showed that the highly aggressive group differed from the other groups in social maladaptation.

Peer relations: The ability to make and maintain healthy and successful relationships with others is the substantial achievement throughout childhood. During school years, children learn socialization, which refines their skills to initiate and maintain a healthy relationship with peers and adults. A peer is, “*a classmate*”, “*a buddy*”, and “*a friend*” who is known to the child and who knows the child. Same aged peers provide an exceptional and unique development. Children’s peer relationships are more balanced in power, when comparing with adult’s relationship. Children get more understandings about prosocial skills like equality, loyalty, honesty and reciprocity from peers (Berndt, 1996).

Friendship is an important factor in facilitating children’s prosocial behavior (Gresham, Sugai, & Horner, 2001; Parker & Asher, 1993). More specifically, children tend to be more altruistic to someone they like, than to someone they dislike. Prosocial behavior seems to be greatly influenced by the child’s exposure to positive adult role models and certain social situations. Children are apt to learn such behaviors as helping and cooperating by receiving adult guidance and positive reinforcement, by interacting with other children, and by observing adults and other children behaving in socially constructive ways. Youngsters exposed to altruistic adults are likely to imitate such behaviors, especially if the adult model is affectionate and nurtured. Other adult behaviors, such as handling disciplinary situations in a positive manner, have also been shown to increase children’s levels of prosocial behavior (Gresham et al., 2001).

Aggression is viewed as a severe negative response that can enhance the display of social cognitive deficits in social relationships, hostile behavior, bullying, juvenile

delinquency, behavioral problems, violence, maladjustment, and a variety of serious disabilities in adolescent and adult years. Aggressive rejected children are less prosocial more aggressive, inattentive and imperceptive than their nonaggressive classmates. Research indicates that children who placed in classroom with highly aggressive peers will exhibit higher levels of aggressive behavior (Barth, Dunlap, Dane, Lochman & Wells, 2004). This finding suggested that child's peer groups are extremely influential in shaping their behavioral choices.

Peer interaction: Poor peer relationships typified by peer rejection and socialization with peers who also engage in aggressive or antisocial behavior. Aggressive children exhibit more physical aggression and reactive aggression and higher levels of activity in playgroups and on playgrounds (Coie, Dodge, Terry, & Wright, 1991; Pepler, Craig, & Roberts, 1998). When engaged in the cooperative and structured task, they are ineffective in their communication behaviors (Dumas, Blechman, & Prinz, 1994). Aggressive children are less able to ask questions, and show interest in others (Day, Bream, & Pal, 1992).

Peer status: Children who fail to make satisfying and close relationships with peers also miss the opportunity to learn social skills for initiating, maintaining social relationships, and resolving conflicts (Coie, Dodge, & Kupersmidt, 1990). Children who have friends are not as troubled as those who do not, but not having friends does not predict aggression (Hartup, 1996). Friendship quality contributes significantly to the development of aggression in children and adolescents. Poulin, Dishion, and Haas (1999) found significant interaction effects between boys' antisocial behavior, and friendship

quality. Empirical studies demonstrate that aggressive friends (poor friendship quality) are risk factors to instigate aggressive behavior and dysregulatory controls (Boivin, Vitaro, & Poulin, 2005).

Children who behave aggressively or in disruptive manner are mostly rejected by their peers (Coie et al., 1990; Coie, Terry, Lenox, Lochman, & Hyman, 1995; Laird, Jordon, Dodge, Pettit & Bates, 2001; Lochman & Wayland, 1994). Young children, who have accepted/popular status from peers, have shown better skills of labeling and relating emotions (Fabes et al., 1994). Aggressive children have been found to have higher levels of aggression with lower levels of prosocial behaviors as compared to aggressive/nonrejected, rejected/nonaggressive, and accepted children (Bierman, Smoot, & Aumiller, 1993). Controversial children are most likely perceived by their peers as “athletic” (Johnstone, Frame, & Bouman, 1992). Children with different type of aggression evidence different patterns of peer status. Reactive aggressive children are disliked more than proactive aggressive children (Poulin & Boivin, 1999; 2000a; 2000b). Overt aggression for boys and relational aggression for girls is the strongest predictor of rejection (Cricket et al., 1999). Peer rejection and aggression in children predicts adolescent antisocial behavior (Miller-Johnson, Coie, Maumary-Gremaud, Lochman, & Terry, 1999).

Children’s perception of peer’s intentions also affects their aggressiveness (Feldman & Dodge, 1987; Lochman & Dodge, 1994). Aggressive children generate fewer positive strategies and are more confident that their aggressive strategies will work, and cause less harm than nonaggressive children (Crick & Ladd, 1990).

c) School-Level Factors

The child's ability to make a positive and adequate bond with school and teachers depends on many factors, like involvement, interests of parent in child's school activities, providing encouragement and acquaintance with their child's peer group and child's capabilities (study habits, positive bond with school and teachers, organization abilities). In a review, Walker, Colvin, and Ramsey (1995) identified school factors that appear to be associated with children who display conduct problems. The first factor is; schools react "unprepared" with no proactive program to prevent children from developing problems. The second factor is the use of "punishment/exclusion methods" to deter children's behavior problems. These procedures made aggressive children to experience alienated and discouraged (Dishion, 1988). Third is "labeling" the children to determine their eligibility for services. Labels can further alienate these children and create a self-fulfilling prophecy. Fourth, parents of children with conduct and aggressive problems are often reluctant to become involved in the school process. Walker and colleagues (1995) argued that school factor likely pose additional risk and stress that accelerate the behavioral problems of aggressive children.

The bond with the teacher is another important risk factor for aggressive children. In a longitudinal study, Hughes, Cavell, and Jackson (1999) assessed child-teacher relationship quality in 2nd and 3rd grade, aggressive children and found that teachers are often negative in their interactions with aggressive children, they further elaborated their results that those children who had poor relationships with their teacher were more likely to maintain aggression.

d) Neighborhood-Level Factor

Neighborhood problems, such as chaotic housing, high crime rate, isolation, lack of economic resources, concentration of poverty, and generally unsafe conditions, are directly or indirectly related to increase rates of aggression, violence, crime and risk taking behaviors in children and adolescents (Codler, Mott, Levy, & Flay, 2000; Greenberg, Lengua, Coie, Pinderhughes, & CPPRG, 1999; Guerra, Huesmann, & Spindler, 2003; Kupersmidt, Griesler, DeRosier, Patterson, & Davis, 1995; Leventhal & Brooks-Gunn, 2000; Lochman, Barry, Barth, & Wells, 2001; Lochman, Wells, Qu, & Chen, 2013; Peeples & Loeber, 1994). Neighborhoods can influence children's schematic beliefs about aggression (Guerra et al., 2003) and their self-regulation abilities.

Aggressive children are likely to experience negative reactions from peer, parents, and teachers. These experiences, then in turn affect behavior and outcomes. Aggression develops via multiple person and contextual factors, and most of them are associated (Powell et al. 2011). The contextual social cognitive model has proven useful for identifying mechanisms or developmental processes of aggression that are essential for deciding which behaviors or processes might be the best targets for prevention and intervention. This integrated model is useful for identifying targets of intervention and has been cornerstones of "*cognitive behavior interventions*" (CBIs). Ellis (1962) argued that thoughts, especially irrational thoughts, are the root of behavior problems. Cognitive behavior treatment is based on the premise that cognition, emotion, and overt behavior are interdependent subsystems. Many researchers and clinicians share the assumption that

thinking (cognition) mediated behavior change, and those changes in thinking lead to behavior and emotional changes (Bandura, 2001; Brannon, Feist, Updegraff, 2013; DeRubeis, Tang, & Beck, 2001; Hayes, Folette, & Linehan, 2004; Leeuw, Goossens, Linton, Crombez, Boersma, & Vlaeyen, 2007; Veehof, Oskam, Schreurs, Bohlmeijer, 2010; Wright, Basco, & Thase, 2006).

SCHOOL-BASED PREVENTIVE INTERVENTION OF AGGRESSION

Schools provide an important setting for prevention and intervention with children with behavior disorders (i.e., aggression, disruptive and conduct problems, violence, antisocial behaviors). Prevalence studies consistently estimate that from 3-10% of the school age population have emotional and behavioral disorders and require the services (Kauffman, 2005). Aggressive children can be easily identified at school and schools offer an important context for intervening the behavioral problems in children because the children are present on a regular basis and can receive intervention without relying on their parents to bring them to clinics. Several empirically supported treatments are now available for use in school settings and demonstrated a cost effective way to treat conduct related problems (Powell et al., 2011; Weisz & Kazdin, 2010).

There are many school-based prevention and intervention programs (Gottfredson, et al., 2000) but one set of overlapping strategies used in school settings focuses on students' social cognitive processing. To address the social cognitive processing difficulties, several "cognitive behavior interventions" (CBIs) have been developed.

Some of the early programs designed to target social cognitive processes were D’Zurilla and Goldfried’s (1971) “*Problem-Solving Therapy*”, Shure and Spivack’s (Shure, 1992; Shure & Spivack, 1992) “*I Can Problem Solve*”, “*Fast Track Prevention Program*” (CPPRG, 1992), Hudley’s (1994) “*Brain-Power*”, Webster-Stratton’s (2001) “*The Incredible Years*”, Lochman’s “*Anger Coping Program*” (Lochman, Nelson, & Sims, 1981; Lochman, Lampron, Burch, & Curry, 1985; Lochman, Lampron, Gemmer, Harris, & Wyckoff, 1989) and “*Coping Power Program*” (Lochman & Wells, 1996; 2002a). These programs are designed to improve social behavior by teaching cognitively based problem solving skills.

Hawkins and colleagues advice to select those interventions that incorporate multiple risk factors of conduct problem in children (Hawkins, Catalano, Morrison, O’Donnell, Abbott, & Day, 1992). Many multi-component intervention programs supported this approach through their effectiveness trails (Pentz et al., 1989).

COPING POWER PROGRAM

The “*Coping Power Program*” (CPP- Lochman, & Wells, 1996; 2002a; Wells, Lochman, & Lenhart, 2008a; 2008b) is a school-based comprehensive, multi-component intervention program that is based on the “*contextual social cognitive model*” of risk for youth aggression. “*Coping Power Program*” (Lochman & Wells, 2002a) is an extension of “*Anger Coping Program*” (Lochman et al., 1981; 1985; 1987; Larson & Lochman, 2002; 2010). Coping Power draws upon many of the cognitive and behavioral techniques

of well-established parent training programs while also incorporating novel techniques that target child-level social cognitive risk factor for externalizing behavior problems. The program is designed for use in 4 to 7 grades as a preventive intervention for children with aggressive behavior, oppositional defiant or conduct disorder. It has also been adapted for use as a treatment component within existing children's mental health programs.

Child Component: The Coping Power Child Component (Lochman et al, 1996; 2008) consists of 34 structured weekly group sessions and periodic individual sessions, typically delivered to groups of 5 to 7 children in 4th through 6th grades (ages 9-12years). Group meetings are designed to last 45 minutes to one hour are led by two CP trained clinicians, one of them, takes primary responsibility for delivering the content of the session (Leader) while the other maintains behavior management in the group (Co-Leader). Sessions are highly structured and organized to teach targeted cognitive behavioral skills. Each group meeting follows a consistent format included standard opening and closing activities. During the middle part of the sessions, new activities with active teaching methods like discussions, games, and role play are introduced. Monthly basis individual meetings increase leader-child rapport and individualized program need is assessed.

Following the behavior management system, positive reinforcement is given for appropriate/prosocial behaviors and consequence for negative/inappropriate behaviors. Children earn "points" during each group meeting for positive participation, following

group rules, homework assignments, and for program's goal setting system (i.e., up to five points each week).

Parent Component: Coping Power program also target the parent levels factors. CP-parent component consists of 16 structures parent group sessions (Wells, Lenhart, & Lochman, 1996; 2008a; 2008b). The content of the CP-parent component is adapted from “*social learning theory-based parent training programs*”(Lochman & Wells, 2002b; Patterson, Reid, Jones, & Conger, 1975). During CPP sessions, parents learn to differentiate prosocial behavior of their children from the disruptive one, give reward for the desired behavior and ignore the inappropriate behavior. They also learn effective parenting behaviors, e.g., establishing clear and effective communication patterns with consistent monitoring and also applying stress management techniques to interact with children. Parents also learn how to support their children's social cognitive skills especially problem solving skill.

Abbreviated version of Coping Power Program

The full length Coping Power Program (34 child sessions, 16 parent sessions) requires 15 to 18 months to implement. An abbreviated version of the Coping Power Program (24 child sessions, 10 parent sessions) is also available, which can be administered in one academic year (see **appendix B** for detail). This abbreviated version is based on same theoretical and empirical evidences which are the base of full length CPP. Abbreviated version of CPP also showed promising outcome effects (Lochman,

Baden, Boxmeyer, Powell, Qu, Salekin, & Windle, 2014; Lochman, Boxmeyer, Powell, Roth, & Windle, 2006; Muratori et al., 2015).

A challenge for school-based interventions lies in the effective dissemination and implementation of evidence-based programs on a wide scale (Schoenwald & Hoagwood, 2001). At the level of implementation, Lochman and Gresham (2009) recommended a thorough assessment of children on entry in the Coping Power Program to guide a comprehensive treatment plan.

The Coping Power Program includes full length and an abbreviated version for child and parent manuals, a teacher curriculum is also available and is typically administered during in service teacher workshops. CPP can be implemented by mental health professionals in clinical practice settings, or by school guidance counselors and related school personnel. CPP was originally designed to be implemented with 4th -6th grade children, but has been successfully adapted for younger and older children. It has also been successfully adapted for other languages (e.g., Dutch, Spanish) and cultures (Dyer, 2010).

Efficacy and Effectiveness Studies of Coping Power Program

Initially, Coping Power Program was designed with an aim to target the early substance in at-risk aggressive boys. In effectiveness trial, Lochman and Wells (1996) reported significant effects of Coping Power on preadolescent boys' social behavior, social cognitive competence, temperamental inhibitions, , substance use and locus of

control and also showed improvements in parents' marital relationship, their social cognitive processes and their parenting behavior.

Another effectiveness study examined the effects of the full Coping Power Program (both parent and child components) for high risk children, along with the effects of a universal preventive intervention (Lochman & Wells, 2002a). A total of 245 male and female aggressive 4th grade students from 17 elementary schools were randomly assigned to one of four conditions: (1) Indicated Intervention + Universal Intervention (IU), (2) Indicated Intervention + Universal Control (I), (3) Indicated Control + Universal Intervention (U), and (4) Indicated Control + Universal Control (C). At the post intervention, the intervention conditions displayed lower rates of substance use. In one-year follow up, CPP children (indicated intervention condition) had significant lower rates of self-reported delinquency, substance use, and teacher rated physical aggression in comparison to the control children (Lochman & Wells, 2003).

In another efficacy study of the Coping Power Program, Lochman and Wells (2002b) recruited 183 aggressive boys from 11 elementary schools and randomly assigned them to one of three conditions: (a) a cognitive-behavioral Coping Power-child component, (b) Coping Power child and parent components combined, and (c) an untreated cell. The two intervention conditions took place during 4th -5th grades or 5th -6th grades, and intervention lasted for 1.5 school years. The Coping Power Program has been found to produce lower rates of substance use, reductions in aggression, improved social competence, and greater teacher-rated behavioral improvement at the end of intervention, in comparison with children who had not participated in the Coping Power

Program (Lochman & Wells, 2002b). One-year follow-up analyses (Lochman & Wells, 2004) indicated that the intervention cells (child component only and child plus parent components) have produced reductions in children's self-reported delinquent behavior, in parent-reported alcohol and marijuana use by the child, and improvements in their teacher-rated functioning at school during the follow-up year, in comparison to the high-risk control condition.

Several Coping Power effectiveness studies have been completed or underway, including evaluations of program with aggressive deaf children (Lochman et al., 2001), children with disruptive behavior disorders (Lochman & Wells, 2002a; 2002b; Lochman et al., 2015; Lochman, Wells, Qu, & Chen, 2013), in the Netherlands (van de Wiel, Matthys, Cohen-Kettenis, & van Engeland, 2003; van de Wiel, Matthys, Cohen-Kettenis, Maassen, Lochman, & van Engeland, 2007), in Puerto Rican children (Cabiya, Padilla-Cotto, González, Sanchez-Cestero, Martínez-Taboas, & Sayers, 2008), in Canada (Slavin-Stewart & Lipman, 2014), and evaluation of an abbreviated version of CPP indicated intervention (Lochman et al., 2006; Lochman et al., 2013) and as a universal prevention intervention (Muratori et al., 2015). Significant behavioral improvements have been observed in children receiving CPP. Four years following intervention study, in the Dutch sample also maintained the same results (Zonneville-Bender, Matthys, van de Wiel, & Lochman, 2007). Lochman and colleagues (2009) found significant reductions in teacher and parent reported externalizing behavior problems in the CPP group in comparison to control group at post-treatment (Lochman, Boxmeyer, Powell, Qu, Wells, & Windle, 2009). Coping Power Program also showed significant effects in different case

studies (Boxmeyer, Lochman, Powell, Yaros, & Wojnaroski, 2007; Lochman, Boxmeyer, Powell, Wojnaroski, & Yaros, 2007).

CULTURAL ADAPTATION FRAMEWORKS

Cultural adaptation is “*systematic modification of an evidence-based treatment (EBT) or intervention protocol to consider language, culture, and context in such a way that is compatible with the client’s cultural patterns, meaning, and values*” (Bernal, Jimenez-Chafey & Domenech-Rodriguez, 2009, p. 362). According to Castro, Barrera, and Martinez (2004), cultural adaptation is “*the modification of program content [and delivery modes] to accommodate the needs of a specific consumer group*” (p. 42).

There are persuasive arguments for conducting cultural adaptations of evidence-based treatments (EBTs) (Castro et al., 2004; Lau, 2006). Literature has shown the significance of cultural adaptation of mental health intervention programs (Griner & Smith, 2006; Smith, Domenech-Rodríguez, & Bernal G., 2011). Smith and colleagues (2011) conducted a meta-analysis to find the effectiveness of culturally adapted treatments. They included 65 studies with quasi-experiment or experiment design. They reported that culturally adapted interventions were 4 times more effective with an effect size of 0.46.

Different process models are available in the literature (Castro, Barrera, & Holleran-Steiker, 2010), but the difficulty is to select the one which fits to the needs of the locale staff and time required to implement the program. Bernal and colleague (1995)

published the first adaptation framework based on the ecological validity model for cultural adaptation in Latino Clients, which consists of eight dimensions (Bernal, Bonilla, & Bellido, 1995). The dimensions are cultural context, language, metaphors, concepts, etc. Domenech-Rodriguez and Weiling (2004) used Bernal's ecological validity model to propose three general phases and ten specific target areas for program adaptation. During the first phase, the change agent (researcher) and a community opinion leader collaborate to find a balance between community needs and scientific integrity. In the second phase, evaluation measures are selected and adapted in a process parallel to the adaptation of the intervention. The final phase consists of integrating the observation and data collected in phase 2 into a new packaged intervention. Each phase consists of an ongoing process of evaluation of the therapeutic process.

Resnicow, Soler, Braithwait, Ahluwalia, and Butler (2000) argued that there are two important distinctions to be made about adaptations: surface structure adaptations and deep structure adaptations. "*Surface structure adaptations*" involve changes in original materials or activities of the intervention that address the observable but more superficial aspects of a particular cultural group, such as people, place, language, food, clothing, etc. "*Deep structure adaptations*" involve changes based on deeper cultural, social, historical, environmental, and psychological factors that influence the health behaviors of members of a specific cultural group. A more specific and elaborated taxonomy was proposed by Kreuter, Lukwago, Bucholtz, Clark, and Sanders-Thompson (2003). As with surface adaptations, they define "*peripheral adaptation strategies*" to refer to how the curriculum is "packaged" to give the appearance of cultural

appropriateness (e.g., colors, images, font, and pictures). Interventions can be adapted by providing health information relevant to a particular group, an approach called an “*evidential strategy*” or by adapting the curriculum into a new language using a “*linguistic strategy*”. Next are “*constituent-involving strategies*” that use community members in program design. Finally, “*sociocultural strategies*” are seen as similar to Resnicow’s conception of deep structure and involve integrating cultural values and characteristics of the intended audience.

Heuristic Model for Cultural Adaptation

Barrera and Castro (2006) propose a heuristic model for cultural adaptation. This model consists on five stages: (1) information gathering, (2) preliminary adaptation design, (3) preliminary adaptation tests, (4) adaptation refinement, and (5) cultural adaptation trial, (fifth stage was added later in the heuristic model for cultural adaptation by Barrera, Castro, Strycker, & Toobert, 2012).

Stage 1: Information Gathering

This stage has “*the dual purpose of determining whether an adaptation is justified and, if so, which intervention components might be modified*” (Barrera et al. 2012, p. 3).

Literature reviews primarily based on identifying the cultural differences or similarities in the students (August & Sorkin, 2011; Sarkar, Fisher, & Schillinger, 2006) for a specific intervention. Mier, Ory, and Medina (2010) reported that 44% of the studies for cultural adaptation did literature searches, conduct focus groups, or surveys.

Stage 2: Preliminary Adaptation Design

The focus of this stage is to maintain the core components of the original program. Core components should only alter if there is substantial evidence from Stage 1 (Kumpfer, Pinyuchon, Melo, & Whiteside, 2008). According to Barrera and colleagues (2006; 2012) for cultural adaptations, language translations are “*surface structure*” changes. Original intervention materials (i.e., manuals, measures, etc.) require a careful language translation with reading comprehension and back-translations. In this stage the role of advisory panels is vital in reviewing pilot adaptation versions to identify translation inadequacies or other problematic areas in the translations.

Stage 3: Preliminary Adaptation Tests

When the first cultural adaptation version was finalized and drafted, the next stage is pilot testing (Barrera & Castro, 2006; Kumpfer et al., 2008). Barrera and colleagues (Barrera, Toobert, Strycker, & Osuna, 2012) give very much emphasis on the constant feedback and suggestions from staff members who deliver the intervention. To assure the clarity of items, instructions, and translations, it is recommended to pilot test the outcome measures that will be used in the effectiveness trial (Osuna et al., 2011).

Stage 4: Adaptation Refinement

In this stage, the feedback from the pilot testing is incorporated through making some changes in the preliminary adaptation version (Barrera & Castro, 2006). Changes

made in the preliminary adaptation version need a careful judgment from the intervention team and staff of the advisory board (Barrera et al., 2012).

Stage 5: Cultural Adaptation Trial

Cultural adaptation trial stage offers a full empirical trial of the cultural adaptation version. Such studies determined whether the cultural adaptation is more effective than control condition and finer analyses are used to measure effectiveness (Barrera et al., 2012).

Castro and colleagues also provided some important dimensions for adaptation strategies include: (a) *Cognitive information processing* characteristics such as language and age/developmental level; (b) *Affective motivational* characteristics such as gender, religious, and ethnic background, socioeconomic status; and (c) *Environmental* characteristics that include ecological aspects of the local community (Castro, Barrera, & Martinez, 2004).

AGGRESSION IN PAKISTANI CHILDREN

Political violence can produce profound changes in societies, families and social settings, which in turn influence children's development. War like situations and political violence has many negative effects on children, e.g., increase in aggression and violence, revenge-seeking behavior, and anxiety (Cummings, Goeke-Morey, Schermerhorn, Merrilees, & Cairns, 2009). It is a well-established phenomenon that media promote

aggression in children, and this is one way in which political violence is transmitted to children. Television is considered a powerful source of behavioral modeling (acting aggressively in children) (Bandura, 1973). In our time, films, TV shows, event cartoon channels are showing violence, and children with high exposure to the media may display relatively high levels of violence and hostility in imitation of the aggression (Huesmann, 2007). According to social information processing model, violent media may possibly affect cognitive structures and process incoming information in an aggression way (Bensley & Van Eenwyk, 2001).

Since 9/11 incident all the world in general and Pakistani children and adolescents specifically have direct or indirect exposure of violence. Terrorism in Pakistan has become a highly destructive phenomenon. According to Hamid (2011), the annual death toll from terrorist attacks recorded up to 3,318 in 2009. On 16 December 2014, Pakistani people witnessed a horrifying terrorist attack on the Army Public School of Peshawar. 132 school children with age range 8-18 were killed. Therefore, as the threat of attacks on 'soft targets' the federal and provincial governments took extreme measures to provide security to educational institutes. Students with school staff were provided "emergency and self-defense training" to handle any crisis, and evacuate building as well as use firearms if needed (Rehman & Ejaz, 2015).

For the last fifteen years, TV and video games generated aggression has been replaced by exposure to real life acts of brutality in Pakistani media. Viewing ruthless acts of violence can desensitize young minds to aggression (Gadit, 2009). The proliferation of violence has become a serious social problem in Pakistan today (Mushtaq

& Kayani, 2013; Syed, Hussein, & Haidry, 2009; Syed, Hussein, & Mahmud, 2007). Pakistani boys display more aggression than girls (Azam & Aftab, 2012). A display of early signs of aggression makes Pakistani boys vulnerable for severe later outcomes (violence, criminal behavior, drug abuse, etc.). A country like Pakistan, which has been experiencing violence for a long time has much to concern about her children's mental health. The levels of violence to which children are exposed affect their mind enormously. It is shocking that despite the serious impact of violence on the mental health of people, especially children, no cautionary measure has been taken to portray violence in Pakistani media (Gadit, 2009). With the increasing incidence of violence in Pakistan, the level of violence has been increased on television too. Sadly, the brutal scenes of suicide bombings and killing in big cities like Islamabad, Lahore, Rawalpindi, Peshawar etc., and live combating of the Army, Special Forces, and Police with terrorists, have taken special focus on small screen. What can be more thrilling than violence? These televised acts of violence can lead to an increase in aggressive behavior and bring changes in attitudes and beliefs of youngsters to solve conflicts through aggression. It can also inculcate tolerance to violence in the society.

Rationale of the Study

Worldwide 10-20% children and adolescents experience mental disorders. Low- and middle- income countries (LAMICs) with 85% world's population, share more than 9.8% burden of neuropsychiatric conditions across the life span. Pakistan alone contributes 11.9% of the global burden of disease (Bruckner et al., 2011; Lopez, Mathers, Ezzati, Jamison, & Murray, 2006; World Health Organization-WHO, 2011). The treatment rates in LAMI countries are low and 90% treatment gaps have been reported (Wang et al., 2007). Many countries in African and South-East Asian regions spend less than 1% of their limited health budgets on mental health. Pakistan spends 0.4% of the total health budget on mental health (WHO, 2005). Like other LAMICs, there is a paucity of mental health services for children and adolescents with inadequate need assessment information in Pakistan (Syed, Hussein, & Haidry, 2009). Poverty, low literacy rate, lack of public awareness and policy makers' interest, lack of funding, difficulty in the execution and dissemination of mental health services, shortage of trained staff, stigma and isolation attached with mental health disorders, and absence of strong evidence-based research are the major challenges for prioritizing and initiating intervention prevention services in LAMI countries (Sharan et al., 2009).

The use of different intervention and prevention programs for children with behavioral problems is relatively a neglected area of applied research in a country like Pakistan. It is a proven fact that the issues of developmental psychopathology should be addressed at the appropriate time. The early-onset of aggressive behavior predicts most

persistent, severe and violent, antisocial behavior, substance abuse, and delinquent behavior in adolescence and adult years (Lahey, Waldman, & McBurnett, 2001; Moffitt, 1993). The evidence based effects of CPP in developed countries as a finest indicated intervention program for at risk aggressive children, makes it worthy to implement with Pakistani children.

Evidence based treatments has to establish efficacy in LAMI countries; like Pakistan. It is the need of time to test the efficacy of indigenous interventions, mainly for culturally adapted interventions which have established cost-effectiveness in developed countries. The available empirical evidences for CPP effectiveness and efficacy in different cultures, make it the finest indicated intervention program to target social cognitive processes of at risk aggressive Pakistani school children. Violence, aggression, and intolerance are becoming a shared trait in Pakistani society (Mushtaq & Kayani, 2013). A display of early signs of aggression, making Pakistani boys vulnerable for severe later outcomes (violence, criminal behavior, drug abuse, etc.). Existing evidence regarding the prevalence, incidence, and acceptance of aggression at societal level (Gadit, 2009; Syed et al., 2009) specify the need of effectiveness trials of manualized or curriculum based preventive intervention programs for Pakistani families and children and these programs should be consistent with the cultural norms and belief system.

It is well established through empirical evidences that cognitive behavioral interventions (CBIs) produce significant declines in aggression and disruptive behavior at school as well as at home (Bierman, 2013; Conduct Problems Prevention Research Group-CPPRG, 1999; Kazdin, Siegel, & Bass, 1992; Lochman, Burch, Curry, &

Lampron, 1984; Lochman, Lampron, Gemmer, Harris, & Wyckoff, 1989; Lochman & Wells, 2002a; 2002b; Smith, 2002). The present study aims to evaluate the effectiveness of the CPP-child component to improve children's behavior, social and cognitive competence and anger management skill. The Coping Power Program is effective in promoting social competence, self-regulation and self-control, cognitive competence, school bond and positive parenting behaviors with low levels of corporal punishment and inconsistent discipline (Lochman & Wells, 2002a; 2002b; 2003; 2004). With this perspective in mind, the present study is conceptualized with an aim to evaluate the effectiveness of Coping Power Program to promote healthy behaviors in Pakistani school children.

In the present research, a systematic and structured heuristic framework for cultural adaptation (Barrera et al, 2006; 2012) with step by step cultural adaptation guidelines is used. Coping Power Program, which based on the contextual social cognitive model, targets the social cognitive competence and contextual factors like parenting practices, peer, school and community. The present work should also be considered as a step forward in adaptating a culturally fit evidence based intervention for aggressive children in Pakistan.

The relationship of social-cognitive factors and aggressive behavior in peer context has been relatively neglected in research within the social cognitive model (Kazdin, 1995; Vasey, Dangleish, & Silverman, 2003). In the west, many research (e.g., Crick & Dodge, 1994; 1989; Dodge & Coie, 1987; Dodge et al., 2003; Dodge, Godwin, & CPPRS, 2013; Dodge & Somberg, 1987; Kazdin, 1996; Lochman & Dodge, 1994;

Vasey, Dangleish, & Silverman, 2003) are being conducted to investigate the social cognitive processes in aggressive children, but in Pakistan, only one study conducted by Mushtaq (2007), explored the social-cognitive aspects of aggression in children. Few studies have investigated the aggressive children's status among peers related to their different social information processing styles (Dodge et al., 2003). The present research is designed keeping in view the practical significance of the problem. The study aims at identifying the social status of aggressive children among their peers, and how this status affects their social cognitive process, social competence, school bonding, and parenting behavior. This research will act as a milestone in providing a ground for future research in developmental psychopathology. It will also help to identify the maladaptive contextual social cognitive factors contributing to problematic relationships among children.

With the above mentioned main concerns, this research will also add some very useful investigation with reference to peer nominated social status (i.e., popular, rejected, neglected, controversial, and average) and severity of the aggressive behavior (mild to severe). There is only one research available which explored the aggression severity group differences. Lochman and Dodge (1994) conducted a study to explore the difference among nonaggressive, severely violent, and moderately aggressive boys on social cognitive processes. There is huge literature that demonstrate the differences among extreme groups (mild aggressive/nonaggressive and severely aggressive) with rejected or popular social status (Asher, & Coie, 1990; Bierman et al., 1993; Bierman & Wargo, 1995; Coie, 1990; Coie & Dodge, 1983; 1988; Coie & Kupersmidt, 1983; Dodge, 1983;

Dodge et al., 2003; Dodge, Price, Bachorowski, & Newman, 1990; Dodge, Price, Coie, & Christopoulos, 1990; Hartup, 1983). This research is the first which demonstrates the differences among different social status along with aggression severity groups and also establishes the evidence for the unique characteristics of severely aggressive children in behavioral, social and cognitive processes.

RESEARCH DESIGN

The present research aims to determine the effectiveness of the Coping Power Program (CPP) for Pakistani school children. A systematic cultural adaptation of evidence based practices for prevention and intervention of children's behavioral problems has gained importance. Contextual social cognitive factor has been considered as mediating factors for the children's behavioral problems.

The current research comprised of following three studies:

Study I: Cultural Adaptation of Coping Power Program

The study aimed at describing the cultural adaptation process of CPP with a heuristic approach (Barrera & Castro, 2006; Barrera et al., 2012). Pretesting of adapted and translated outcome measures and CPP was also done in this study. Cultural adaptation of CPP was concluded in following five stages.

Stage 1: Information Gathering

Stage 2: Preliminary Adaptation Design

Stage 3: Preliminary Adaptation Tests

Stage 4: Adaptation Refinement

Stage 5: Cultural Adaptation Trial

Study II: Initial Screening and Comparison of Aggression Severity Group Children on Contextual Social Cognitive Variables

In study II, initial screening and comparative study among aggression severity groups was conducted to explore the links with contextual social cognitive factors. This study was comprised of following two phases.

Phase I: Initial screening for aggressive behavior and peer sociometry

Phase II: Comparative study among aggressive and nonaggressive children

Study III: Effectiveness of Coping Power Program

This study was designed to see the effectiveness of CPP intervention for the reduction of aggressive behavior and other linked social and cognitive problem. Randomized control trial (RCT) design was used with pre- and post-testing. One hundred and twelve at risk aggressive boys were recruited to determine the efficacy of culturally adapted version of Coping Power Program (CPP).

STUDY I: CULTURAL ADAPTATION OF COPING POWER PROGRAM

This study was designed to evaluate cultural adaptation and translation of Coping Power Program (CPP) and outcome measures.

Objectives of the study

The objectives of the study I were as follows:

1. Cultural adaptation and translation of Coping Power Program (CPP) manual (Lochman, Lenhart, & Wells, 1996; Lochman & Wells, 2002a) and outcome measures.
2. Pilot testing of the outcome measures and intervention manual.
3. Identification of implementation difficulties related to structure, content, activities, length of sessions, etc., then incorporating suggested changes for cultural adaptation trial.

METHOD

For cultural adaptation of the Coping Power Program (CPP), a heuristic model proposed by Barrera and Castro (2006) was used (detail description on page 55). The

adaptation process was completed in five stages by following the three important dimensions for adaptation; (1) “*Cognitive information processing*” dimension includes language, age, and level of development, (2) “*Affective motivational*” dimension describes the characteristics such as gender, religion, ethnicity, and socioeconomic status. (3) “*Environmental*” characteristics such as community (Castro, Barrera, & Martinez, 2004).

Stage 1: Information Gathering

The critical aspects of this phase were to clarify the need for a cultural adaptation and to become well-versed about the content or material by searching the literature, and by conducting focus group interviews. After an extensive literature search, CPP theory and contextual mechanisms were found to be consistent with the literature on childhood aggression.



Figure 4. Process of information gathering

Researcher herself, supervisor of the study, and a doctoral student had experience of teaching child psychology, determined the mismatches (e.g., characteristics of

participants, intervention staff, material, etc.) between the original and proposed intervention program. They also verified the need and selection of the Coping Power intervention for high risk aggressive children in Pakistan (Figure 4). The CPP was considered adaptable for Pakistani children because of its behavioral management strategies, age-appropriate content, improvements in self-control, and reduction in aggression.

Program developer not only helped in identification of the core program modules, but also reviewed the suggested changes with valuable comments to preserve the core components of the intervention. Detailed face-to-face discussion meetings were done to identify both surface and deep structure changes in the manual.

Stage 2: Preliminary Adaptation Design

Language translation and cultural adaptation of the original CPP manual and intervention materials was the main focus of this stage (see Figure 5). This stage comprised of two steps.

Step I: Translation and adaptation of CPP manual. The reviews and information gathered was integrated with the input of relevant stakeholders to make preliminary changes in the original CPP intervention. For CPP manual's Urdu translation, a collaborative committee of four bilingual (researcher herself, a Ph.D. scholar in Psychology, M.Phil. in English language and a teacher graduated in Urdu language) completed the process after seventeen committee meetings of 2 to 3 hours each.

Committee members tried to maintain content similarity, and also translated manual with highlighting the material needed for cultural adaptation.

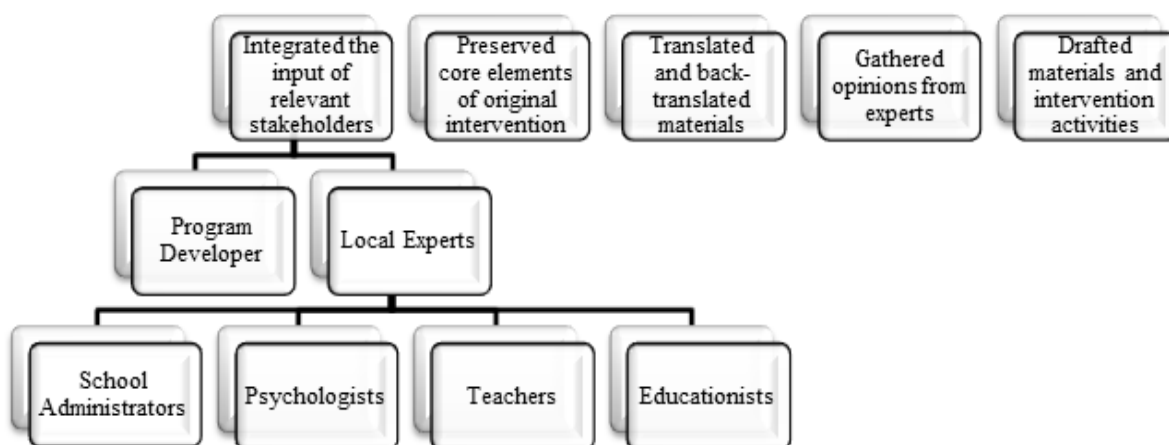


Figure 5. Preliminary adaptation design for Coping Power Program

Cultural adaptation of CPP was comprised of two levels of consultation. In the first level, disparities were identified and modifications in the material were suggested. For this purpose, the researcher made a “CP team” (consisted of two psychologists, two experienced school teachers and two educationists) who were bilingual and had an understanding of child behavior and development. The main task of the “CP team” was to see:

- a) Cultural relevance of CPP content,
- b) Expression of Urdu language with reference to English version of CPP,
- c) Urdu expression and labeling of emotions and feeling components,
- d) Cultural relevance of activities, social situations, stories, coping strategies, role plays etc. mentioned in CPP sessions,

- e) Inclusion of modified activities and material with adherence to the core components of CPP.

In the second level of consultation, the suggestions and feedback of the “CP team” was further discussed with program developer.

Step II: Translations of the outcome measures. Urdu translation of the outcome measures was carried out by following the guidelines postulated by Brislin (1980). Translation process involved following steps.

- a. In the first step, the scales were translated into Urdu. For this purpose, the English version of the scales was given to six translators (2 M.Phil. in Psychology, 2 graduates in English language, 1 graduate in Urdu, and 1 M.Phil. in Education) who were considered to be bilingual and having knowledge of the subject. They were asked to translate all items into Urdu.
- b. The second step involved committee approach in which five judges (2 M.Phil., 2 Ph.D. scholars of Psychology and the supervisor of the research) critically analyzed all the translations and selected the most relevant and closest Urdu translation of the items.
- c. These Urdu translated measures were again given to five bilingual experts (2 M.Phil. in English, 01 M.Phil. in Psychology, and 1 PhD in Urdu) for back translation in English. For this step, only those bilinguals were selected for back translation that were not the part of translation group and also not familiar with the content of items of the English version of all the measures.

- d. The committee scrutinized the back translation critically to see whether the original scale was translated adequately or not.

Stage 3: Preliminary Adaptation Tests

In this stage, an initial trial of CPP Urdu version with outcome measures was conducted to evaluate the cultural relevance of the modified version. The main focus of this stage was to identify difficulties in the content and activities, implementation related difficulties, satisfaction with intervention outcomes, and suggestions for further refinement (Figure 6). The preliminary adaptation test stage was concluded in three and half months.

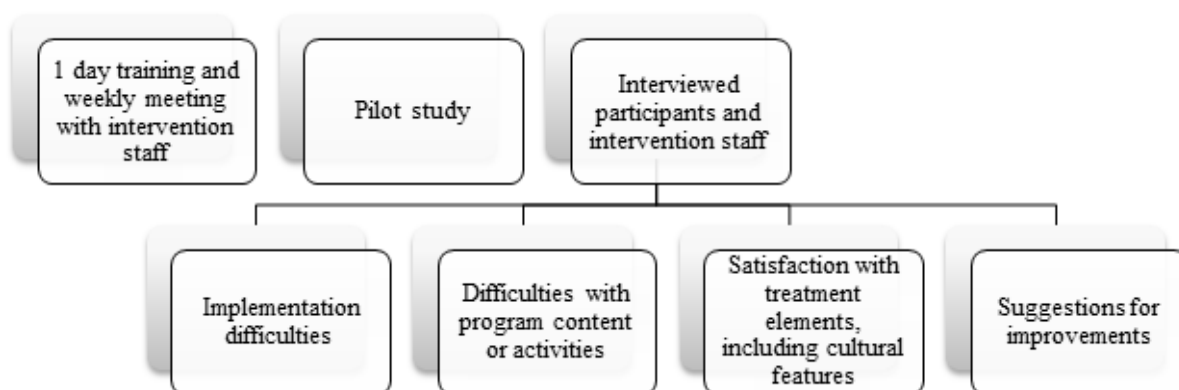


Figure 6. Process of preliminary adaptation test

Part I- Pilot testing of outcome measures. A private school of Rawalpindi was selected for the pilot testing of CPP manual and outcome measures (detail description

was given in Study II at page number 89). As a first step, the school administration was contacted and informed about the purpose of the study. After principal's approval, a consent form was sent to the parents of 49 boys from 4th and 5th grade (boys' section only) for the participation in the study. Only thirty-seven (75.5%) children (20 from 4th grade and 17 from 5th grade) between the ages of 9-11 years ($M=9.5$, $SD=0.53$) had parental consent for participation. Two teachers and 35 parents along with 37 children respond to the Urdu translated measures. Psychometric properties of the measures were determined (see Table 2).

The inter rater reliability of Social Problem Solving (SPS) measure was 0.86 and for Social Information Processing (SIP video) measure was 0.91. Disagreement was resolved after discussion on unmatched scoring codes and 100 % agreement was established later. Peer sociometry nominations were determined through standardized scores of like most nominations and like least nominations across the school by following the procedure described by Coie, Dodge, & Coppotelli (1982). Test retest reliability of peer sociometry nomination was .79 (after 1 month).

Part II- Selection and training of intervention staff. For the initial tryout of intervention manual, researcher herself (who is CPP trained) delivered the program with the help of intervention staff. The intervention staff consisted of a psychologist, two class teachers, and an educationist, who attended the one day extensive training seminar on the orientation of CPP core contents or concepts with implementation guidelines. Psychologist worked as a group co-leader, and the role of teachers and educationist was a silent observer during pilot testing sessions of the CPP (joined the weekly sessions with

identified aggressive children). Weekly meetings with the intervention staff were conducted to review the upcoming sessions throughout the pilot testing. Detailed discussions were also made during these meetings to identify the implementation difficulties, understanding of the content and activities, satisfaction or dissatisfaction with the cultural features, and participants' response to the content and activities.

Part III- Pilot testing of CPP manual. For the initial tryout of the adapted version of CPP, a group of five at risk aggressive boys was selected from the sample of the above mentioned 37 boys of 4th and 5th grades. A teacher rating of aggressive behavior was used as criteria for identification of at risk children (top 25% of the all sample). Ten sessions from the adapted manual of the CPP were selected for initial tryout on the recommendations of "CP team". The first two sessions were consisting of rapport building, acquaintance of group members, establishing and structuring the group rules, goal settings, and the last two sessions were on the review and termination of the intervention. Whereas session 3-8 covered the content on awareness and arousal of feelings, identification of personal triggers, anger coping, self-control, and perspective taking. Maximum modifications were done in these sessions, so they were included in pilot testing only. 40-60 minutes weekly sessions were conducted with group members during school time. Pilot testing of CPP was completed in 2 months and 3 weeks. The average child attendance rate was 91% in pilot testing of CPP group.

Step 4: Adaptation Refinement

After preliminary adaptation, feedback from the pilot with suggestions of “CP team” was incorporated in the adapted CPP Urdu version.

Stage 5: Cultural Adaptation Trial

The main purpose of this stage was to conduct a full effectiveness trial of the revised adapted intervention program (Figure 7). The CPP culturally adapted version was implemented on 112 at risk aggressive boys drawn from five public sector school in Rawalpindi (see study III-Effectiveness of CPP for details).

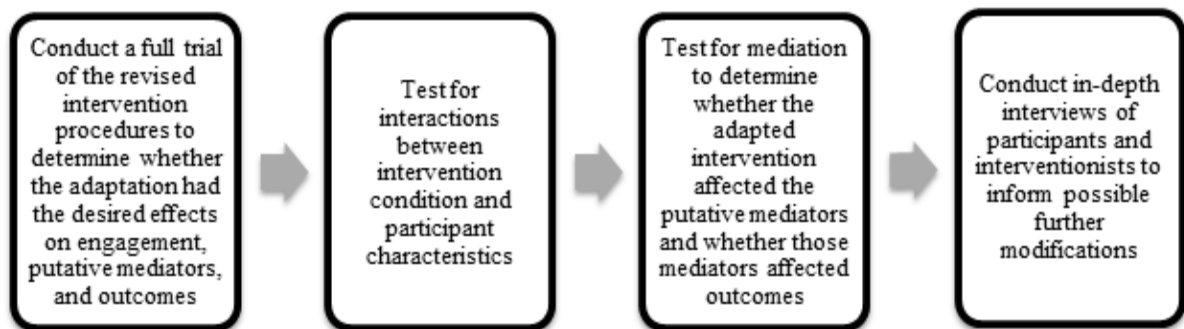


Figure 7. Cultural adaptation trial of Coping Power Program

RESULTS

The results of the study were reported into three phases.

Phase I: Cultural adaptation of CPP manual

The modifications suggested for CPP adaptation were in following two domains.

1. Adaptation of intervention structure

Inclusion of an extra session on identification and labeling of different feeling states was suggested. During pilot testing, it was noted that children were struggling to grasp the concepts related to feelings and emotions. The vocabulary, expression of emotions and the intensity of feeling states were difficult for them. Although in Urdu language, there are different words to describe the intensity of a specific emotion, but they are not commonly used in daily life. The English word “angry” is synonymous to “ghusa” in Urdu. In English language, the intensity words of anger emotion is described as “mad”, “angry”, “annoyed”, “Furious”, and in Urdu language, these emotions are said as, “ghusay se pagal hona”, “ghusa hona”, “naraz hona”, “taish main aana”. The same case was with intensity words for happy and sad emotions. We find these words in the school syllabus, Pakistani literature, and people are familiar with these words, but they are not in daily life’s common vocabulary of the Pakistani people, especially in Pakistani school children’s vocabulary. Therefore, an extra session is included in the final version of CPP intervention manual for identification of different feelings. This session was an

extension of “awareness of feelings and physiological arousal” session. For degree or intensity of anger emotion the word “ghusa” (angry) was used as “ghusa” (a mild form of anger), “zayada ghusa” (a moderate form of anger), and “bohat zayad ghusa” (a severe form of anger) in anger thermometer activity.

2. Adaptation of session content

Adaptation of CPP content was started with the identification of culturally mismatched conditions (see Table 1). Whole program content was translated into Urdu language. Changes were made in expression and vocabulary of the language in the CPP-Urdu version manual.

“*Three Strikes System*” for losing a point was replaced with “*Plenty Cards*” (Green, yellow and red cards). Hokey is a national game in Pakistan and children are well aware with its rules, whereas they are not much familiar with baseball game so “plenty cards” from hockey were considered better for the understanding of the children rather than strikes system of a baseball game.

The words, name, stories, and concepts describing gender, ethnicity, and religious views were modified. Some complimentary and positive labels were added in the reward list with other material gifts, for example, “*class monitor*”, “*school head boy*”, “*teacher helper*” and “*morning assembly organizer*” for one day.

Table 1*Sources of Coping Power Program mismatch*

Source of mismatch	CPP validation group	Pakistani group	Mismatch effect	Mismatch addressed
Language	English	Urdu	Inability to understand program content	Program content was translated into “Urdu”
Gender	Boys and girls	Boys	-	-
Ethnicity	All races	Muslim, and Pakistani	Culturally different life experiences, norms and beliefs	Cultural and religious beliefs, and values were added in the content activities
Religion	Christianity	Islam	Conflicts in beliefs	
Socioeconomic status	Middle and low class	Middle class	-	-
Urban-rural context	Urban	Urban	-	-
Number of risk factors	Several and high in severity	Several and high in severity	-	-
Family stability	Stable family system	Stable family system	-	-
Program delivery staff	Paid staff	Paid staff	-	-
Staff cultural competence	Culturally competent staff	Culturally competent staff	-	-
Community consultation	Consulted with the community	Consulted for administration and adaptation	-	-
Community readiness	Moderate to high readiness	Low readiness	Absence of infrastructure to address child related issues or problems	Schools were motivated to address child behavioral problems

Note: This table was made in the guidelines provided by Castro, Barrera, and Martinez (2004) for

identification of cultural mismatches

Islamic concepts and practices were included to validate the concepts of controlling and managing anger, be nice, friendly, and saying positive things to others. In the list of coping self-statements for anger, some methods listed in Islamic teachings were added, for example, saying “*Taawwudh*” (“A’uzu billahi minash shayta-nir-rajeem”) which means “*I seek refuge in Allah from Shaitan, the accursed one*”, drinking water, washing your face, doing “*Wazoo*” (“Ablution”), etc.

“*Playing cards*” is forbidden in Islam and also labeled as a bad game in Pakistani culture. On the suggestion of “CP team”, the use of playing cards in “self-control” activity was changed a bit. Activity cards with 1-10 numbers in four colors and pictures (Red balloon, Green tree, Blue dolphin, and Black clouds) on the pattern of Montessori activity cards were made.

The usual training in Coping Power Program for intervention staff is conducted in workshop format for 2 to 3 days. However, this type of program was new to the Pakistani people, so role-play, and practice sessions with detailed discussion were added to weekly intervention staff meeting too.

Phase II: Pilot testing of outcome measures

In this phase, appropriateness of the translated version of outcome measures was tested. Descriptive statistics of the translated outcome measures with alpha coefficients were reported in Table 2. The internal consistency and skewness for all scales suggest appropriateness and relevance of these measures for Pakistani children. Peer sociometric nominations revealed that 12 (32.4%) boys received rejected status and 16 (43.2%) were considered popular by peers.

Table 2*Psychometric properties of the major study variables (N=37)*

Variables	No. of		SD	α	Range		Skewness
	Items	M			Potential	Actual	
Self-regulation							
Proactive Aggression	3	8.92	1.99	.89	3-15	3-12	-.574
Reactive Aggression	3	8.11	2.04	.86	3-15	3-12	-.071
EAT-Activity level	6	17.41	4.76	.91	6-30	9-24	-.092
EAT-Fear	7	22.14	2.96	.85	7-35	16-26	-.775
Social Competence							
Social Competence	13	21.86	4.82	.93	13-26	13-26	-.909
Social Support	4	9.86	1.57	.84	4-16	5-14	-.360
Social Cognition							
HIWC	8	9.43	2.35	.86	8-16	8-15	.891
SPS	8	31.08	1.79	.87	0-48	25-39	.305
SIP videos	12	12.35	1.91	.69	0-24	8-17	.187
OEQ-RAT	6	9.89	1.59	.89	0-18	6-13	-.378
OEQ-ATR	6	9.95	1.73	.85	0-18	5-13	-.591
School Bonding							
School Bonding	20	51.59	4.39	.78	20-100	35-70	.041
CPAC	5	12.05	2.88	.81	5-20	8-17	.320

 Parenting Practices

Mother-Report

Parental Involvement	10	34.38	2.30	.82	10-50	29-39	.143
Positive Parenting	6	19.73	2.28	.81	6-30	15-24	.145
Poor Monitoring	10	19.54	2.47	.71	10-50	16-24	.377
Inconsistent Discipline	6	13.19	3.57	.73	6-30	10-21	.929
Corporal Punishment	3	7.19	1.41	.65	3-15	5-10	.335

Child-Report

Parental Involvement (Mother)	10	33.81	2.01	.85	10-50	24-38	-.116
Parental Involvement (Father)	10	31.38	2.28	.81	10-50	29-38	-.512
Positive Parenting	6	19.08	2.35	.88	6-30	14-25	.555
Poor Monitoring	10	21.92	2.99	.75	10-50	18-29	.877
Inconsistent Discipline	6	14.73	1.50	.79	6-30	12-19	.179
Corporal Punishment	3	8.24	1.88	.71	3-15	6-13	.719

Note. EAT= Early Adolescent Temperament scale, HIWC= Home Interview With Child, SPS=Social Problem Solving measure, SIP=Social Information Processing scale, OCE-RAT= Outcome expectations-reducing aversive treatment, CE-ATR= Outcome expectations-attaining tangible reward, CPAC= Children's Perceived Academic Competence.

Phase III: Pilot testing of the Coping Power Program

Pilot testing of the CPP-Urdu version was done in this phase of the study. Ten sessions were included in this phase. After the termination of intervention, in-depth interview was conducted with intervention staff, class teachers, and educationist,

regarding the appropriateness of the program content, cultural relevance, difficulty in program content and implementation. Class teachers and parents reported improvements in social skills, anger control, and positive behavioral changes in targeted boys.

DISCUSSION

There are convincing arguments for conducting the cultural adaptations and fidelity of evidence-based treatments (EBTs) for wider dissemination. The purpose of the present study was to translate and culturally adapt the Coping Power Program and outcome measures for Pakistani children. We conducted systematic adaptation through a heuristic model (Barrera & Castro, 2006) for cultural adaptation of EBTs.

Involvement of stakeholders is a positive sign of the successful adaptation process. The active role of the CPP intervention developer, school teachers, educationists, and parents can be regarded as a motivating feature. The possible culturally mismatched elements in the CPP were identified in the first stage of “*information gathering*”. The theoretical and empirical model of the CPP was found suitable for Pakistani aggressive children. Language, religion, and community readiness considered as a possible mismatch. Conducting detailed discussion with teachers, parents, child development experts with keeping in mind the cultural and religious elements for modifications in the CPP, is in the lines of suggested guidelines (Strolla, Gans, & Risica, 2006).

In the “*preliminary adaptation design*” stage, the main focus of adaptation was related to the language and religion components. Pakistan is a non-English speaking country, so CPP intervention and outcome measures were translated into Urdu language. Specific changes were made to the original CPP in the areas of intervention content, intervention staffing procedures, and outcome measures. The advisory team reviewed preliminary versions of the CPP to identify translation inadequacies. Although,

translation of CPP manual and outcome measures were “*surface structure*” changes, but they are the central features of cultural adaptations (Barrera et al., 2012). In the absence of empirical evidence to EBTs adaptation for Pakistani population, these adaptations would have been based on the advisory team’s expertise, cultural sensitivity, and intuitions. Core components of the CPP were not altered (Card, Solomon, & Cunningham, 2011; McKleroy et al., 2006). Our approach at this stage was to resist for those suggested changes that lacked sufficient explanations.

On the third stage of the study, we conducted a “*preliminary adaptation test*” of culturally adapted and translated version of CPP and outcome measures. Pilot testing of adapted version of CPP and outcome measures validated the language translations, suitability, and precision of the items (Osuna et al., 2011). Exit interviews with intervention staff, participants, teachers, and parents were also done.

In the “*adaptation refinement*” stage, pilot testing feedback is used to make changes in the initial adaptation version (McKleroy et al., 2006). The suggested modifications in the CPP intervention structure and content are in the direction of suggestions given by the CPP developers.

The impact of intervention is further explored in the “*cultural adaptation trial*” through some advanced and fine analyses.

**STUDY II: INITIAL SCREENING AND COMPARISON OF
AGGRESSION SEVERITY GROUP CHILDREN ON CONTEXTUAL
SOCIAL COGNITIVE VARIABLES**

Objectives of the study

This study was envisioned by keeping the following objectives in mind:

- To evaluate aggressive behavior, and dysregulated emotional distress, especially fearlessness and impulsivity in children.
- To explore the adequate protective bond with school and positive relationships with teachers.
- To investigate social information processing styles (hostile attributions, problem solving, response generation, response access, response evaluation, and out-come expectations) in children.
- To study differences in parenting practices (different aspects of positive and harsh parenting) experienced by aggression severity group children.
- To explore the relationship between aggressiveness and social status of the children among peers as a function of acceptability and non-acceptability of the peers.

- To investigate the association between aggression, contextual social and cognitive variables (i.e., child, peer, school, and parent related factors).
- To explore the differences in contextual social and cognitive variables (i.e., child, peer, school, and parent related factors) in aggression severity group children with different social status (popular, rejected, neglected, controversial, and average).

Hypotheses

1. Aggressive children (moderately and severely aggressive) are expected to have high levels of reactive and proactive aggression, fearlessness (engage in risky behaviors) and impulsivity as compared to nonaggressive children.
2. Aggressive children (moderately and severely aggressive) are expected to experience social rejection, with low levels of social competence and social support as compared to nonaggressive children.
3. Aggressive children (moderately and severely aggressive) are expected to have the tendency to attribute hostile intent to others behavior, generate fewer solutions, and expect a high positive outcome of aggressive responses as compared to nonaggressive children.
4. Aggressive children (moderately and severely aggressive) are expected to have low levels of school bonding and academic competence as compared to nonaggressive children.

5. Aggressive children (moderately and severely aggressive) are expected to experience low levels of parental involvement and positive parenting practices as compared to nonaggressive children.
6. Aggressive children (moderately and severely aggressive) are expected to experience high levels of corporal punishment and poor monitoring parenting practices as compared to nonaggressive children.

Operational Definition of the Study Variables

Aggression. Coie and Dodge (1997), define aggression as “*behavior that is aimed at harming or injuring another person*” (p. 781). In the present research, aggression was assessed with Teacher Checklist of Social Behavior (Urdu translated version - Mushtaq, 2007). The boys were classified as moderately aggressive if they received an aggression score that was 1 SD above the sample mean, severely aggressive when they received an aggression score that was 1 SD above the sample mean and also rated by teachers as 25% more aggressive than their classmates and all the other boys were categorized as nonaggressive (least aggressive).

Self-regulation. Self–regulation is defined as “*the processes and abilities that make it possible to modulate (i.e., facilitate or inhibit) reactivity, which refers to the motor, physiological, attention and emotional responses to internal and external stimuli*” (Rothbart & Derryberry, 1981, p. 40). In the present study self-regulation is measured in terms of aggressive behavior and temperamental distress through Proactive–Reactive

Aggressive Behavior Scale (Dodge & Coie, 1987) and Early Adolescent Temperament Scale (Capaldi & Rothbart, 1992).

Social Competence. Social competence is “*a psychological term used broadly to reflect the full range of skills, abilities, and cognitive processes that are involved in effective social interactions*” (Dow & Rich, 2001, p. 1555). Anita and Kreimeyer (1992) suggest that social competence can be conceptualized as the “*ability to interact appropriately with others*” (p. 135). Social competence in the present research is measured in terms of social behaviors and social cognition.

School Bonding. School bonding is the attachment students experience at their school; the extent to which they feel connected with their teachers and their level of participation and commitment to the school (Battistich, Schaps, & Wilson, 2004). Child’s school attitude and his bonding with teachers is measured through Piers-Harris 2 (Piers & Harris, 2002). High scores show a positive attitude toward school and strong bonding with teachers.

Parenting Practices. Parenting practices are the specific behaviors that parents use to socialize their children (Darling & Steinberg, 1993). In the present research, Alabama Parenting Questionnaire (Shelton, Frick, & Wootton, 1996) is used to measure parenting behavior in five dimensions, i.e., Parental Involvement, Positive Parenting, Poor Monitoring/Supervision, Inconsistent Discipline, and Corporal Punishment.

METHOD

Participants

Initial screening: 23 fourth grade teachers within five public schools (two schools with morning and evening shifts) of Rawalpindi were approached in the spring for the initial screening of aggressive behavior of their students. Only those classrooms were taken whose at least 70% of the parental consent forms (for initial screening) were returned (see **appendix A**). From 15 classrooms, 859 participants (boys only) who were 9 to 11 years old ($M = 9.44$, $SD = .50$) were recruited. Teacher ratings approach was used to identify aggressive and nonaggressive boys (Coie & Dodge, 1983, 1988). Class teachers were asked to rate their students (only those who had parental permission) on eight items of aggression scale from Teacher Checklist of Social Behavior (Urdu translated version - Mushtaq, 2007).

To identify severely (at risk) aggressive group, who will qualify for CPP intervention too (study III); teachers were asked to rate their students on 3 items (i.e., “verbally aggressive”, “physically aggressive”, and “disruptive”) with 1 to 5 point rating scale. Selecting a sample of at risk aggressive children through this screening method has found a stable and valid method in prior research (Hill, Lochman, Coie, Greenberg, & CPPRG, 2004; Lochman, 1992; Lochman & Wells, 2002a; Lochman, Wells, Qu, & Chen, 2013).

Teachers' rating of children's aggressive behavior ($M=24.37$, $SD=4.90$) determined the aggression severity groups (i.e., nonaggressive, moderately aggressive,

and severely aggressive boys) across all the classes. The boys were classified as moderately aggressive if they received an aggression score that was 1 SD above the sample mean. Similarly, severely (at risk) aggressive boys were identified when they received an aggression score that was 1 SD above the sample mean and also rated by teachers as 25% more aggressive than their classmates on three items. All the other boys were categorized as nonaggressive (least aggressive).

For sociometric nomination in all selected classes, children were given a class roster and were asked to write down the names of three liked most (LM) and three liked least (LL) classmates. Total nominations of each child for LM and LL were transformed into standard scores across classrooms within the school and then used to determine the status of the boys (see Table 4 for the summary of the sociometric criteria for each status group) according to the method suggested by Coie, Dodge, and Coppotelli, (1982).

On the basis of these ratings, 357 (41.6%) children were identified as aggressive in the whole sample [183 (21.3%) as moderately aggressive, 174 (20.3%) as at risk/severely aggressive] whereas 502 (58.4%) were identified as nonaggressive. Social status determined through sociometric criteria for each group (see Table 3).

Table 3

Frequencies of nonaggressive, moderately and severely aggressive children with their social status among peers (N = 859)

Social Status Group	Nonaggressive		Moderately Aggressive		Severely Aggressive		Total	
	F	%	F	%	f	%	f	%
Popular	184	21.4	20	2.3	16	1.9	220	25.6
Rejected	25	2.9	74	8.6	128	14.9	227	26.4
Neglected	201	23.4	08	1.0	0	0	209	24.3
Controversial	04	0.5	45	5.2	28	3.3	77	9.0
Average	88	10.2	36	4.2	02	0.2	126	14.7
Total	502	58.4	183	21.3	174	20.3	859	100

Final selection of the sample: After initial screening, parents of the children were contacted for consent regarding participation in study-II. Detailed demographic sheet was also sent with the consent form. 261 (30.4%) parents refused to participate, 179 (20.8%) did not meet inclusion criteria. So, 419 (48.8%) boys were the eligible participants of the study. There were no significant differences in child age, $t(857) = 0.103$, $p = .918$, and teacher ratings of aggression score, $t(857) = 0.065$, $p = .948$, for children who participated in the study (Age: $M=9.44$, $SD=.49$; Aggression score: $M=24.36$, $SD=4.90$) and those who did not (Age: $M=9.45$, $SD=.51$; Aggression score: $M=24.37$, $SD=4.89$). During data collection 18 boys were dropped out from the study

(eleven for their non-serious behavior or refusal to participate, and seven were either moved to another school or city).

The inclusion/exclusion criteria for the selection of the sample were:

1. Fourth grade boys with 9-12 years of age
2. Children having parental permission to take part in the study
3. Intact families (no case of divorce or separation)
4. Both parents alive
5. No history of child and parental psychopathology
6. Literate families with minimum education up to 8th grade

On the basis of parental permission and inclusion criteria, 401 children (180 nonaggressive, 100 moderately aggressive and 121 severely aggressive) were taken as potential participants of the present study. The parents' age ranged from 30-48 years and education ranged from 10th to 16th grade. The average age of the mothers at the time of testing was 35.46 years (SD = 1.98) and had completed an average education of 12.73 years (SD = 2.06). The average age of fathers at the time of testing was 38.78 years (SD = 2.37), and had completed an average education of 13.42 years (SD = 1.96). The average income of the families was between 40,000 -50,000 per month. All children were living with both parents and had more than two siblings (M = 3.22, SD = 0.90, range = 2-6).

Instruments

Identification of Aggressive Behavior and Status Group

Teacher Checklist of Social Behavior: Urdu version of aggression subscale of “Teacher checklist of social behavior” (Mushtaq, 2007) was used to identify different aggressive severity groups (nonaggressive, moderately aggressive and severely aggressive children). This checklist is originally developed by Coie, Terry, Underwood and Dodge (1987; Unpublished manuscript). This checklist is an instrument designed to obtain information from teachers with regard to children’s patterns of behavior, academic ability, and physical characteristics. The checklist consists of six primary subscales: (1) Aggressive-Dominant (additionally this subscale consists of two related but factorially distinct subscales; an aggressive subscale and a dominant subscale), (2) Disruptive, (3) Socially insecure, (4) Academic, (5) Prosocial, and (6) Attractive. The alpha reliability of these subscales are .95, .95, .89, .91, .88, .85, .82, .69 respectively. Aggression in children was measured on a 5-point Likert Scale (1= “Never True”, to 5= “Almost Always True”). This scale consists of 8 items and scores range from 8 to 40.

Sociometric Measure: A sociometric measure is an assessment used to determine social status of persons among their peers (Asher & Williams, 1987). Sociometric status, also known as “*social status*”, is the rank a child has in relation to other students. Sociometric status can be seen as the level of peer acceptance and linked to an “index” of peer relationships (Wentzel & Caldwell, 1997). Five levels of status (or clusters) are commonly found in peer relations (Asher & Coie, 1990; Asher & Williams, 1987, 1996; Bierman & Furman, 1984; Bierman & Schwartz, 1986; Coie & Dodge, 1988; Coie et al., 1982; Crick & Ladd, 1993; Dodge, 1983).

Popular: Children categorized as popular are those children who are chosen by a large number of their peers as somebody they like very much (i.e., many highest positive nominations) (Coie & Dodge, 1988).

Rejected: Rejected children are overtly or actively disliked and will receive numerous negative nominations from peers (Asher & Coie, 1990; Bierman & Schwartz, 1986; Crick & Ladd, 1993).

Neglected: Neglected children are largely ignored by peers (Bierman & Schwartz, 1986; Crick & Ladd, 1993). They are identified as children who may not be nominated by other children as someone they like or someone they like very much, but they also receive few, if any, nominations of dislike (i.e., a pattern that combines some positive and neutral nominations).

Controversial: Controversial children are those children who have high liking scores and high disliking scores (Coie et al., 1982).

Average: Average status group consists of those children who have a low liking score and low disliking scores. It provides a reference group with whom the more extreme groups are compared (Coie et al., 1982).

For the purpose of collecting peer data, all students were handed a class roster and were asked to write down the names of three liked most (LM) and three liked least (LL) classmates. Nominations were used to determine their status. Measuring social status through this method has established stability across time and situations (Coie & Dodge, 1983; Coie et al., 1982; Coie & Kupersmidt, 1983) even when boys are the only focus of

the study. Each boy's total nominations for LM and LL were transformed into standardized scores across classroom within each school.

Two sociometric variables of social preference (SP) and social impact (SI) were derived from standard scores of LM and LL scores. As suggested by Peery (1979), social preference (SP) was calculated by the formula $zLM - zLL$ and social impact (SI) was calculated by the formula $zLM + zLL$. These scores used to determine the status of the boys according to the procedure suggested by Coie et al. (1982). Table 4 contains a summary of the sociometric criteria defining each group.

Table 4

Defining Criteria for Status Group

Status Group	
Popular	Social Preference ($zLM - zLL$) > 1.0 and $zLM > 0$, $zLL < 0$
Rejected	Social Preference ($zLM - zLL$) $< - 1.0$ and $zLM < 0$, $zLL > 0$
Neglected	Social Impact ($zLM + zLL$) < -1.0 and $zLM < 0$, $zLL < 0$
Controversial	Social Impact ($zLM + zLL$) >1.0 and $zLM > 0$, $zLL > 0$
Average	$1.0 > \text{Social Preference } (zLM - zLL) > - 1.0$ and $1.0 > \text{Social Impact } (zLM + zLL) > - 1.0$

Note: z = standard score, LM=like most, LL=like least

Outcome Measures

The instruments used in the study are a cluster of four domains (see **appendix C**). This measurement battery is specially designed for Coping Power Program (CPP) to evaluate the outcome variables in the contextual communal cognitive model. All these measures demonstrated good reliability and validity in numerous research on children with an age range 4-18 years (for review see; Capaldi & Rothbart, 1992; Dadds, Maujean, & Fraser, 2003; Dodge et al., 1997; Dodge, Bates, & Pettit, 1990; Ellis & Rothbart, 2001; Essau, Sasagawa, & Frick, 2006; Frick, Christian, & Wooton, 1999; Frick, Kimonis, Dandreaux, & Farell, 2003; Hall, Herzberger, & Skrowronski, 1998; Lochman & Wells, 2002a; 2002b; Pardini, Lochman, & Frick, 2003; Piers & Herzberg, 2002; Rothbart & Derryberry, 1981; Stewart, Crump, & McLean, 1979; Trzesniewski, Donnellan, & Robins, 2003; etc.).

1. Self-regulation Measures

The self-regulation domain was assessed through the following measures;

a) Aggressive Behavior

The aggressive behavior subgroup was assessed through **Proactive–Reactive Aggressive Behavior Scale**. Urdu version of Proactive–Reactive Aggressive Behavior Scale was used in this study. Dodge and Coie (1987) originally develop this scale to obtain information from teachers and parent regarding children’s aggressive behavior. The six items measure two types of aggression, i.e., reactive aggression (having 3 items) and proactive aggression (having 3 items). Responses are marked on 5 point Likert scale

(i.e., 1 = “Never” to 5 = “Almost Always”). Both scales are the sum of the 3 items with a range of 3 to 15. The inter correlation (see Table 7) between proactive and reactive aggression subscales in the current sample was .55 ($p=.006$).

b) **Internal Behavioral Processes**

This group was assessed in term of dysregulated emotional distress. **Early Adolescent Temperament Scale (EAT)** is originally developed by Capaldi and Rothbart (1992). EAT is a 5-point Likert scale (1 = “very false” to 5 = “very true”). The child self-report was used to measure the temperamental distress. Two subscales of EAT for fear and activity level are used as a measure of self-regulation. **Fear** subscale consists of seven items to measure behavioral inhibition in children. Higher scores indicate increased levels of temperamental fear and lower scores reflect more fearlessness. Six items of **activity level** subscale measure child’s capacity to perform an action and impulsivity. Higher scores indicate impulsivity.

2. **Social Competence**

Second domain was determined through the following measures.

a) **Social Behavior**

Social Preference: Social preference (SP) scores from sociometric measure were used to assess the popularity of the children (for details see sociometric measure).

Piers-Harris Children’s Self-Concept Scale (Piers-Harris 2): Urdu translated version of Piers-Harris 2 was used to measure children’s social competence and support.

This scale is originally developed by Piers and Harris (2002). Two child-reported subscales were used, **Social Competence** subscale measures children's perceptions of their competence/acceptance with 13 yes-no questions (e.g., "I have many friend"). **Social Support** was measured with four items (e.g., "I am liked by lots of kids in my class") on a 4-point Likert scale (1 = "very much like me" to 4 = "Not at all like me"). A higher score indicates more social competence and social support.

b) **Social Cognition**

Home Interview with Child (HIWC): Hostile attribution biases were measured using adapted and Urdu translated version of "Home Interview With Child (HIWC)" (Mushtaq, 2007). This scale was developed by Dodge, Pettit, McClaskey, and Brown (1986). The child was asked to judge the intention of peer's behavior in each of eight stories. In this interview, first the picture is showing to the child, then reading the story, and asking the questions. For attribution, a question, "Why did this happen?" is asked and then interviewer needs to record verbatim the child's response and then immediately rate the response as either an accidental (non-hostile) or hostile attribution. Responses were coded as 1= "benign intent" or 2= "hostile intent". The mean scores were used for analysis. The inter rater reliability (Kappa Coefficient) was 0.91. The disagreements were resolved through discussion and reevaluation and 100% agreement was achieved.

Social Problem Solving (SPS) Measure: Response generation and thinking alternative solution to a social problem was measured through another eight-cartoon stimulus with stories (Dodge et al., 1986). Urdu translated and adapted version of Social

Problem Solving (Mushtaq, 2007) was used. The child was asked to generate solutions to the social problems presented in the stories. For each story, subjects can give up to eight solutions to the specified problem. The mean scores were calculated. Only aggressive and competent responses were used in this study. The inter rater reliability (Kappa Coefficient) was 0.94 and 0.92 respectively. The disagreements were resolved through discussion and reevaluation and 100% agreement was achieved.

Social Information Processing Measures: Social information processing of the subjects was measured by using 12-videotaped social situations (Dodge et al., 1986) particularly designed to see a child's reaction to being rejected in peer group. The video stimuli were translated, adapted, and recorded with Pakistani children. The Urdu version of vignettes (Mushtaq, 2007) was used in the study. The peer intent in rejecting a child varies as "hostile", "benign", or "ambiguous" for each situation. These scenarios were presented to the child and asked to imagine himself as a protagonist. Then questions were asked to assess his patterns and skills of processing.

To assess the child's ability to attend the appropriate and relevant social cues, the child was asked to recall, "what had happened in the story". Responses were marked as 0 ("not at all relevant"), 1 ("partially relevant"), and 2 ("fully relevant"), and averaged across the 12 vignettes.

To assess response evaluation skills, the child was asked to rate alternative strategy option ("aggressive", "inept", and "competent") either good or bad to do (1 = "very bad, 2 = "bad", 3 = "good", and 4 = "very good") for all 12 videos. The behavioral responses were presented in random order and the scale has good internal consistency for

the all three options in the current sample ($\alpha = .86$ for aggressive, .81 for competent, and .83 for inept responses) only aggressive and competent response evaluation categories used in this study.

Outcome Expectation Questionnaire (OEQ): Urdu version of OEQ (Perry, Perry, & Rasmussen, 1986) was used to determine the child's belief about the consequences of aggressive behavior. This measure consists of 12 brief vignettes in which participants were asked to imagine that they were executing a behavior toward a specific peer and then to indicate their level of confidence that a particular consequence would succeed. The two consequences are "Reducing Aversive Treatment (RAT) - (aggression will stop aversive treatment)" and "Attaining Tangible Rewards (ATR) - (aggression will lead to attainment of rewards)". Respondents rated whether they thought the other child will stop or continue teasing. Children were asked to rate outcomes on 4-point Likert scale (0 = "Very sure the target will get a desirable outcome"; 1 = "Pretty sure the target will get a desirable outcome"; 2 = "Pretty sure the target will get an undesirable outcome"; 3 = "Very sure the target will get an undesirable outcome"). Low scores indicate that the child expects a desirable outcome and high scores indicate that a child expects an undesirable outcome. Inter correlation between subscales of RAT and ATR in the current sample was .81 ($p=.002$) (see Table 7).

3. School Bonding

School bonding domain was assessed through Piers-Harris 2 (Piers & Harris, 2002). To measure child's school attitude and his bonding and attachment with the

teachers, **Attitudes toward School and Bonding with Teachers** was used. Children respond to 20 items on a 4-point Likert scale (1= “Strongly disagree” to 4= “Strongly agree”). High scores show a positive attitude toward school and strong bonding with teachers. The five items of **Children’s Perceived Academic Competence** measure children’s perception about their academic aptitude. Children were asked to mark their choice on a 4-point Likert scale ranging from 1= “Not at all like me” to 4= “very much like me”.

4. Parenting-Practices

Alabama Parenting Questionnaire (APQ): APQ is originally developed by Shelton, Frick, and Wootton (1996). It is a self-report questionnaire, having 42 items that measure five dimensions of parenting behaviors, which are considered to be the cause of childhood problems and issues. Both child and parent forms are available. APQ is designed to be administered on children of age range 6-18 years. The five dimensions are “Parental Involvement” (10 items), “Positive Parenting” (6 items), “Poor Monitoring/Supervision” (10 items), “Inconsistent Discipline” (6 items), and “Corporal Punishment” (3 items). “Other Discipline Practices” (7 items), is not a scale, but provides information on an item by item basis. Parents and children were asked to mark their response by using a 5-point Likert scale (1= “Never” to 5 = “Always”). APQ has good psychometric properties including reliability with standards range from .5 to .9 and criterion validity (Dadds, Maujean, & Fraser, 2003; Essau, Sasagawa, & Frick, 2006).

Procedure

As a first step, competent authorities and school administrations were contacted and informed about the purpose and nature of the study. After having their permission, five public sector schools (two schools with morning and evening shifts) from Rawalpindi were approached. A meeting with the all school principals was arranged to explain the research purpose and requested their cooperation. 23 fourth grade classrooms (boys sections only) were recruited and to get parental consent, parents were approached indirectly through their children. Only 15 (62.12%) classrooms were selected on the provision of 70% parental consent for participation. Screening was done in the spring of the academic year of 4th grade boys. Teacher's rating of aggressive behavior was used as criteria for subject selection. Peer data were collected during school hours in group sessions.

After initial screening, along with consent letter, a demographic sheet aimed at collecting basic information according to the sampling criteria for study II was sent to 859 parents. Parents were requested to fill that form if they agreed to take part in the research study along with their children. After getting the consent, 401 boys and their parents who fulfilled the sampling criteria, were eligible participants. Assessments were collected in the spring and summer from teachers, parents (mothers) and children. No incentives were used to reward the participants for their time. Different instruments (e.g., Self-Regulation-Aggressive Behavior, Self-Regulation-Internal-Behavioral Processes, Social Competence-Social Behavior, Social Competence-Social Cognition, School Bonding, and Parenting Practices) were administered individually to children, their

mothers, and teachers by trained research assistants who were unaware about boys' grouping (i.e., nonaggressive, moderately and severely aggressive status). Appropriate statistical analyses were done to test the hypotheses.

Analysis Plan

Preliminary, descriptive, and correlational analyses were performed to find out the associations between study variables. When there were multiple variables present in a domain then multivariate analysis of variance (MANOVA) was applied. MANOVA minimize the possibility of Type-II error. Aggression severity group (nonaggressive, moderately aggressive and severely aggressive) and social status (popular, rejected, neglected, controversial and average) were entered as fixed factor, and outcome measures as dependent variables. Subsequent univariate analyses of variance (ANOVAs) were further used to examine the group differences when MANOVA showed significant effects. Some associations were emerged between the demographic variables and some outcome measures, so that particular variable was tested differently, by conducting an analysis of covariance (ANCOVA) where demographic variable entered as a covariate.

RESULTS

The results are organized in two sections. The first section describes issues related to data screening, normality scores, and preliminary analyses which included examining the psychometric properties of the measures used in the study and the participants' characteristics including demographics for the potential covariates. The second section describes the analyses related to the study hypotheses and post hoc analyses to explain differences between the means of aggression severity group (nonaggressive, moderately aggressive, and severely aggressive children) with different social status.

Preliminary Analyses

For the purpose of preliminary data analysis, the dataset was reviewed to assure proper data entry. Variables ranges (minimum and maximum) were examined to ensure reasonableness.

Normality was tested by reviewing through analysis of skewness, kurtosis, histograms, stem-and-leaf plots, mean scores, and standard deviations. Descriptive statistics were examined in order to observe normality of data for all variables. All values were within the possible range. Scores for each outcome measures appeared normally distributed. The values of skewness and kurtosis were in acceptable range (+1.00 to – 1.00) and were providing evidence that assumptions were not violated (George & Mallery, 2003; Morgan, Griego, & Gloeckner, 2001).

Table 5*Demographic characteristics*

Demographic Characteristics	Frequency (%)	Mean(SD)
Child's age		9.44(0.49)
Father's age		38.78(2.37)
Father's education		13.42(1.96)
High School (10 years) or less	54(13.5 %)	
Higher Secondary School (12 years)	108(26.9 %)	
Undergraduate (14 years)	142(35.4 %)	
Postgraduate (16 years or more)	97(24.2%)	
Mother's age		35.46(1.98)
Mother's education		12.73(2.06)
High School (10 years) or less	94(23.4 %)	
Higher Secondary School (12 years)	137(34.2 %)	
Undergraduate (14 years)	99(24.7 %)	
Postgraduate (16 years or more)	71(17.7%)	
Familial structure		
Nuclear	213(53.1%)	
Extended	188(46.9%)	
Mother's work status		
Working	151(37.7%)	
Not working	250(62.3%)	
Family size		7.13(2.96)
Monthly income (in Pakistani Rupees)		
20,000-30,000	72(18.0%)	
30,000-40,000	164(40.4%)	
40,000-50,000	109(27.2%)	
More than 50,000	58(14.5%)	

Table 5 summarizes the demographic characteristics of the sample.

Table 6

Psychometric properties of the major study variables (N=401)

Variables	No. of Items	M	SD	α	Range		Skewness
					Potential	Actual	
Self-regulation							
Proactive Aggression	3	8.84	2.78	.87	3-15	3-15	-.288
Reactive Aggression	3	8.62	2.85	.85	3-15	3-15	-.146
EAT-Activity level	6	15.59	4.98	.93	6-30	6-30	.413
EAT-Fear	7	20.60	3.48	.87	7-35	12-28	.104
Social Competence							
Social Competence	13	21.53	4.08	.94	13-26	13-26	-.778
Social Support	4	9.12	1.83	.91	4-16	5-14	.149
Social Cognition							
HIWC	8	10.16	2.21	.84	8-16	8-16	.771
SPS	8	31.06	2.01	.89	0-48	25-39	.539
SIP videos	12	13.05	1.83	.81	0-24	9-18	.160
OEQ-RAT	6	8.22	1.98	.87	0-18	5-13	.283
OEQ-ATR	6	8.42	1.96	.86	0-18	5-13	.432
School Bonding							
School Bonding	20	51.51	5.74	.80	20-100	35-75	.336
CPAC	5	11.36	2.46	.86	5-20	7-17	.724
Parenting Practices							
Mother-Report							
Parental Involvement	10	33.19	3.38	.84	10-50	22-39	-.073

Positive Parenting	6	18.89	2.01	.85	6-30	10-26	.014
Poor Monitoring	10	20.21	2.42	.81	10-50	15-25	.046
Inconsistent Discipline	6	14.49	4.01	.78	6-30	10-22	.580
Corporal Punishment	3	7.78	1.32	.69	3-15	5-10	-.151
Child-Report							
Parental Involvement (Mother)	10	32.80	3.01	.84	10-50	25-39	.206
Parental Involvement (Father)	10	30.73	3.05	.82	10-50	23-38	.233
Positive Parenting	6	18.42	2.09	.89	6-30	11-26	.158
Poor Monitoring	10	23.17	3.78	.79	10-50	18-31	.420
Inconsistent Discipline	6	15.34	1.81	.81	6-30	11-19	-.176
Corporal Punishment	3	9.22	1.80	.70	3-15	6-13	.072

Note. EAT= Early Adolescent Temperament scale, HIWC= Home Interview With Child, SPS=Social Problem Solving measure, SIP=Social Information Processing scale, OEQ-RAT= Outcome Expectation Questionnaire-Reducing Aversive Treatment, OEQ-ATR= Outcome Expectation Questionnaire-Attaining Tangible Reward, CPAC= Children's Perceived Academic Competence.

The above-mentioned table shows the descriptive details with reliability and normality scores of Urdu translated scales for child, teachers and parents. Table also displays moderate to high internal consistency which provides the evidence about the relevance of these measures for local sample.

Correlation analyses were done with demographic variables and the study variable. Some associations were emerged between the age of the children and their tendency to hostile attribution biases ($r = -.108$, $p = .030$), number of response generation ($r = .120$, $p = .017$), mother reported corporal punishment ($r = -.121$, $p = .016$) and child reported corporal punishment ($r = -.100$, $p = .046$) and poor monitoring ($r = -.102$, $p = .042$). Father's education was negatively correlated with mother reported parenting practices,

i.e., poor monitoring ($r = -.115$, $p = .021$), inconsistent discipline ($r = -.120$, $p = .016$) and corporal punishment ($r = -.142$, $p = .004$) and child reported parenting practices, i.e., poor monitoring ($r = -.119$, $p = .018$), inconsistent discipline ($r = -.113$, $p = .024$) and corporal punishment ($r = -.122$, $p = .014$). So these demographic variables were used as control variables in the main analyses.

Social status of the children among peers is another theoretically and empirically important factor for the development of aggression, poor social skills, and errors in social information processing styles. So social status (i.e., popular, rejected, neglected, controversial, and average) was included as a second factor with aggression severity groups (nonaggressive, moderately aggressive and severely aggressive).

The zero-order correlation was calculated between the study variables (Table 7). This correlation matrix indicates how much and in which direction these variables associated with each other. Significance displays the presence of correlation links between the variables.

Table 7*Correlation matrix of all Study Variables (N = 401)*

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1 Proactive Aggression	1	.55**	-.52**	-.46**	.49**	-.39**	.40**	-.41**	.47**	-.10	.13**	-.59**	-.40**	-.15**	-.08	-.48**	-.46**	-.21**	.67**	.61**	.63**	-.45**	-.41**
2 Reactive Aggression		1	-.59**	-.48**	.50**	-.40**	.48**	-.48**	.55**	-.10*	.13**	-.57**	-.37**	-.25**	-.11*	-.49**	-.55**	-.23**	.74**	.68**	.70**	-.53**	-.48**
3 Social Preference			1	.57**	-.61**	.57**	-.46**	.48**	-.69**	.45**	.13**	.55**	.58**	.45**	.56**	.47**	.54**	.38**	-.69**	-.64**	-.62**	.45**	.43**
4 Encoding Relevant Cue				1	-.65**	.45**	-.37**	.37**	-.50**	.28**	-.04	.44**	.42**	.28**	.33**	.42**	.44**	.27**	-.61**	-.57**	-.49**	.38**	.37**
5 Hostile Attribution Biases					1	-.38**	.45**	-.46**	.54**	-.25**	.01	-.53**	-.42**	-.29**	-.30**	-.47**	-.43**	-.32**	.63**	.58**	.61**	-.44**	-.39**
6 Responses Generation						1	-.30**	.39**	-.47**	.33**	.03	.33**	.40**	.33**	.42**	.37**	.40**	-.49**	-.45**	-.43**	-.43**	.28**	.32**
7 Generation of Aggressive Response							1	-.82**	.44**	-.13**	.11*	-.48**	-.25**	-.11*	-.10	-.44**	-.40**	-.15*	.58**	.60**	.54**	-.48**	-.46**
8 Generation of Competent Response								1	-.45**	.12*	-.08	.50**	.32**	.17**	.13*	.49**	.45**	.24**	-.60**	-.60**	-.57**	.50**	.49**
9 Positive Evaluation of Aggressive Outcome									1	-.26**	-.02	-.48**	-.38**	-.34**	-.33**	-.43**	-.48**	-.26**	.66**	.61**	.60**	-.46**	-.42**
11 Positive Evaluation of Competent Outcome										1	.32**	.06	.40**	.40**	.61**	.04	.15**	.22**	-.15**	-.18**	-.06	.05	-.01
11 Activity Level											1	-.14**	.08	.10*	.34**	-.19**	-.02	.23**	.12*	.16**	.14**	-.08	-.08
12 Fear												1	.62**	.14**	.08	.52**	.59**	.38**	-.71**	-.61**	-.68**	.52**	.49**
13 School Bonding													1	.49**	.42**	.27**	.48**	.44**	-.47**	-.37**	-.38**	.29**	.26**
14 Academic Competence														1	.39**	.16**	.28**	.27**	-.28**	-.25**	-.21**	.20**	.18**
15 Social Competence															1	.08	.19**	.25**	-.17**	-.16**	-.08	.06	.03
16 Social Support																1	.43**	.20**	-.63**	-.59**	-.61**	.47**	.46**
17 Parental Involvement-MR																	1	.52**	-.64**	-.56**	-.56**	.42**	.43**
18 Positive Parenting-MR																		1	-.32**	-.24**	-.28**	.23**	.21**
19 Poor Monitoring-MR																			1	.83**	.85**	-.66**	-.62**
20 Inconsistent Discipline-MR																				1	.78**	-.58**	-.55**
21 Corporal Punishment-R																					1	-.64**	-.60**
22 Outcome Expectation (RAT)																						1	.81**
23 Outcome Expectation (ATR)																							1
Mean	8.84	8.62	-.41	13.05	10.16	31.06	11.82	10.35	25.45	25.55	15.59	20.60	51.51	11.36	21.53	9.12	33.19	18.89	20.21	14.49	7.78	8.22	8.42
SD	2.78	2.85	1.77	1.83	2.21	2.02	5.79	6.09	5.24	7.16	4.98	3.48	5.74	2.46	4.08	1.83	3.38	2.01	2.42	4.09	1.32	1.98	1.96

** $P < .01$, * $P < .05$

Note: MR=Mother Report, Outcome Expectation (RAT)=Outcome Expectation-Reducing Aversive Treatment, & Outcome Expectation (ATR)=Outcome Expectation-Attaining Tangible Reward

Table 8

Correlation matrix of parenting practices reported by mothers and children (N = 401)

Parenting Practices	Child Report						
	Mother Report	PI (Mother)	PI(Father)	PP	PM	ID	CP
Parental Involvement (PI)		.816**	.810**	.599**	-.480**	-.421**	-.513**
Positive Parenting (PP)		.489**	.470**	.737**	-.324**	-.225**	-.308**
Poor Monitoring (PM)		-.438**	-.454**	-.442**	.594**	.513**	.594**
Inconsistent Discipline (ID)		-.267**	-.292**	-.316**	.384**	.232**	.346**
Corporal Punishment (CP)		-.346**	-.350**	-.368**	.461**	.384**	.519**

** $P < .01$,

The above table shows link between parenting styles reported by mothers and children with a significant positive correlation (0.82 - 0.23, $p < .01$) and significant negative correlation (-0.23 to -0.51, $p < .01$). The relationship was in the expected direction.

Social status links with the prosocial and aggressive behavior of children. There is a strong association between peer rejection and aggressive display of behavior in the school children and adolescents. Table 9 shows the relation between aggressiveness and social status of children. Nonaggressive children were popular with their peers where as severely aggressive children were more likely rejected by their peers than moderately aggressive and nonaggressive children. Controversial status is predominantly seen for the aggressive children.

Table 9

Frequencies of aggression severity groups (moderately aggressive, severely aggressive, and nonaggressive children) with their social status among peers (N = 401)

Social Status	Nonaggressive	Moderately Aggressive	Severely Aggressive	Total
Popular	98	11	03	112
Rejected	14	65	112	191
Neglected	50	0	0	50
Controversial	0	12	06	18
Average	18	12	0	30
Total	180	100	121	401

Main Analyses

The hypotheses of the study were tested with either multivariate analyses of variance (MANOVAs), analyses of variance (ANOVAs), or analyses of covariance (ANCOVAs), using general linear model (GLM). When demographic variables were significantly correlated with the dependent variables, then they were used as a covariate in ANCOVA. The initial analysis for each dependent variable examined the main effects for the two independent variables of aggression severity groups (1= nonaggressive, 2= moderately aggressive, 3= severely aggressive) and social status (1=popular, 2=rejected, 3= neglected, 4= controversial, 5= average) and the interaction effects for *Group X Social Status*.

Self-regulation Domain. Aggression and internal behavioral processes were assessed in this domain. MANOVA for the teacher rated proactive-reactive aggression variable yielded a significant main effects. Subsequent univariate analyses (ANOVAs) revealed that severely aggressive children had greater levels of reactive and proactive aggression than the other two groups (results displayed in Table 10 and 11).

Pillai's trace in MANOVA showed a significant effect of social status on reactive and proactive aggression, $V = 0.725$, $F(4, 390) = 31.096$, $p = .003$. Subsequent ANOVAs revealed a significant main effect of social status for reactive aggression, $F(4, 390) = 3.441$, $p = .048$ and non-significant main effect for proactive aggression, $F(4, 390) = 1.155$, $p = .330$, with a non-significant interaction effect *Group X Social Status* for aggressive behavior variables.

Pairwise comparison between aggression severity groups with different social status revealed that social status did not contribute significantly to proactive and reactive aggression in nonaggressive children. Severely aggressive children with rejected status had significantly higher levels of reactive aggression ($M = 12.20$, $SD = 1.10$) than moderately aggressive children with popular ($M = 9.18$, $SD = 1.54$), average ($M = 9.00$, $SD = .85$), and controversial status ($M = 9.52$, $SD = 1.43$), but there was non-significant differences for severely aggressive and moderately aggressive children with rejected status (see Table 12).

On internal behavior processes variables, MANOVA generated significant main effects for dysregulated emotional distress (fearlessness and impulsivity). Follow up ANOVAs showed that severely aggressive children were more fearless and had higher

levels of activity than the comparison groups. Post hoc analyses using the Bonferroni test revealed significant mean differences between nonaggressive children ($M=23.32$, $SD=2.52$), moderately aggressive children ($M=19.33$, $SD=2.70$) and severely aggressive children ($M=17.60$, $SD=1.84$) on fear subscale, but non-significant mean difference was seen between moderately aggressive ($M=16.23$, $SD=4.87$) and severely aggressive children ($M=16.26$, $SD=501$) on activity level (see Table 10 and 11).

MANOVA for social status yielded a significant main effect for fear and activity level variables. Following with ANOVAs showed significant main effects of social status for fear, $F(4, 390) = 2.416$, $p = .048$, and for activity level, $F(4, 390) = 20.850$, $p = .001$, with a significant *Group X Social Status* interaction effects for fear, $F(4, 390) = 2.643$, $p = .033$ and a non-significant interaction effect for activity level, $F(4, 390) = 1.800$, $p = .128$.

Pairwise comparison between aggression severity groups with different social status revealed that moderately aggressive boys with controversial status ($M=21.92$, $SD=2.43$) had significantly high levels of fear as compared to moderately and severely aggressive boys with popular, rejected, and average status and severely aggressive boys with controversial social status. On activity level, moderately aggressive boys with rejection ($M=21.09$, $SD=4.99$) and severely aggressive boys with controversial status ($M=23.00$, $SD=4.36$) had higher levels of impulsivity. Moderately aggressive boys with popular status ($M=14.92$, $SD=4.46$) had significantly lower levels of activity as compared to all other groups (see Table 13).

Table 10*Difference among aggression severity groups on the self-regulation domain ((N= 401)*

Variables	Nonaggressive		Moderately Aggressive		Severely Aggressive		F	p	η^2
	(n=180)		(n=100)		(n=121)				
	M	SD	M	SD	M	SD			
Aggressive Behavior									
Proactive Aggression	6.72	2.09	9.89	1.79	11.13	1.92	54.26	.000	.218
Reactive Aggression	6.24	1.98	9.46	1.41	11.49	1.52	69.57	.000	.263
Internal Processes									
Fear	23.32	2.52	19.33	2.70	17.60	1.84	53.44	.000	.215
Activity Level	14.79	4.93	16.23	4.87	16.26	5.01	6.47	.002	.032

df = 2, 390

Note: η^2 = Partial eta squared values are suggestive of significant effect size. Cohen (1969) classified effect of 0.2 as small, 0.5 as medium, and 0.8 or higher as large.

Table 11

Post hoc analysis of group difference on the self-regulation domain (N=401)

Variables	(I) Aggression severity groups	(J) Aggression severity groups	Mean Difference (I-J)	(i-j)	S.E	95% CI	
						LL	UL
Proactive Aggression	Nonaggressive	Moderately Aggressive	NA < MA	-3.17 ^{***}	.245	-3.76	-2.58
	Nonaggressive	Severely Aggressive	NA < SA	-4.42 ^{***}	.232	-4.98	-3.86
	Moderately Aggressive	Severely Aggressive	MA < SA	-1.24 ^{***}	.266	-1.88	-.60
Reactive Aggression	Nonaggressive	Moderately Aggressive	NA < MA	-3.22 ^{***}	.215	-3.73	-2.70
	Nonaggressive	Severely Aggressive	NA < SA	-5.25 ^{***}	.203	-5.74	-4.76
	Moderately Aggressive	Severely Aggressive	MA < SA	-2.04 ^{***}	.233	-2.60	-1.48
Fear	Nonaggressive	Moderately Aggressive	NA > MA	3.99 ^{***}	.288	3.42	4.56
	Nonaggressive	Severely Aggressive	NA > SA	5.72 ^{***}	.273	5.18	6.25
	Moderately Aggressive	Severely Aggressive	MA > SA	1.73 ^{***}	.313	1.11	2.34
Activity Level	Nonaggressive	Moderately Aggressive	NA < MA	-1.43 [*]	.554	-2.52	-.34
	Nonaggressive	Severely Aggressive	NA < SA	-1.46 ^{**}	.525	-2.50	-.43
	Moderately Aggressive	Severely Aggressive	MA < SA	-.03 NS	.601	-1.21	1.15

*p<.05, **p<.01, ***p<.001, NS=Non significant

Note: NA= Nonaggressive, MA= Moderately Aggressive, SA= Severely Aggressive children

2	Rejected nonaggressive	6.00	2.04	NS	-										
3	Neglected nonaggressive	6.40	2.21	NS	NS	-									
4	Average nonaggressive	5.78	1.96	NS	NS	NS	-								
5	Popular moderately aggressive	9.18	1.54	.000	.000	.000	.000	-							
6	Rejected moderately aggressive	9.77	1.64	.000	.000	.000	.000	NS	-						
7	Controversial moderately aggressive	9.52	1.43	.000	.000	.000	.000	NS	NS	-					
8	Average moderately aggressive	9.00	.853	.000	.000	.000	.002	NS	NS	NS	-				
9	Popular severely aggressive	10.67	.577	.000	.000	.000	.000	NS	NS	NS	.027	-			
10	Rejected severely aggressive	12.20	1.10	.000	.000	.000	.000	.001	NS	.019	.000	NS	-		
11	Controversial severely aggressive	11.48	1.54	.000	.000	.000	.000	NS	NS	NS	NS	NS	NS	-	

Note: only significant differences at $p < .05$ are reported.

2	Rejected nonaggressive	11.93	1.77	.000									
3	Neglected nonaggressive	11.30	2.41	.000	NS								
4	Average nonaggressive	16.22	4.44	NS	.007	.000							
5	Popular moderately aggressive	14.92	4.46	.012	.023	.000	NS						
6	Rejected moderately aggressive	21.09	4.99	.002	.000	.000	.005	.000					
7	Controversial moderately aggressive	19.23	3.90	NS	.000	.000	NS	.002	NS				
8	Average moderately aggressive	15.58	4.01	NS	.038	.003	NS	.003	.041	NS			
9	Popular severely aggressive	18.33	1.58	NS	.002	.000	NS	.005	NS	NS	.019		
10	Rejected severely aggressive	19.79	3.79	.041	.000	.000	.032	.000	NS	NS	.012	NS	
11	Controversial severely aggressive	23.00	4.36	.002	.000	.000	.003	.000	.000	NS	.002	NS	NS

Note: only significant differences at $p < .05$ are reported.

Social Competence Domain. This domain consists on social behavior and social cognition variables. MANOVA for the social behavior variables yielded significant main effects. Subsequent univariate analysis (ANOVA) revealed that social preference of severely aggressive children in their peer group was distinctly low. Post hoc analyses using the Bonferroni test revealed significant mean differences between the all groups on social preference. ANOVAs for social competence and social support also indicated significant main effects for aggression severity groups (see Table 14). Post hoc analyses by using the Bonferroni test revealed non-significant mean differences between nonaggressive and moderately aggressive children on social competence variable, and non-significant differences between moderately aggressive and severely aggressive boys for social support (see Table 15).

Pillai's trace in MANOVA showed a significant main effect of social status and *Group X Social Status* interaction effect on social behavior variables. Subsequent ANOVA revealed a significant main effect ($F(4, 390) = 235.305, p = .000$), and *Group X Social Status* interaction effect, $F(4, 390) = 2.309, p = .050$ for social preference. ANOVA also demonstrated a significant main effect of social status, $F(4, 390) = 96.644, p = .000$, and *Group X Social Status* interaction effect, $F(4, 390) = 15.361, p = .001$, for social competence. Whereas a non-significant main effect, $F(4, 390) = 0.141, p = .967$, with a non-significant interaction effect of *Group x Social Status*, $F(4, 390) = 0.413, p = .799$ for social support.

Pairwise comparison between aggression severity groups with different social status revealed that social status played a significant role in social preference of the children in peer groups. Popular status children with severity groups of nonaggressive ($M=1.95$, $SD=.597$), moderately aggressive ($M=1.63$, $SD=.388$), or severely aggressive ($M=1.96$, $SD=.774$) had a higher preference. Rejected children (nonaggressive, moderately aggressive or severely aggressive) scored least on social preference. The pairwise comparison showed that nonaggressive boys with neglected ($M=16.92$, $SD=3.71$), and rejected status ($M=13.64$, $SD=2.13$) scored significantly lower on social competence than the other comparison groups. On social support, moderately aggressive boys with popular, rejected, controversial and average status scored significantly lower than the comparison groups (see Table 16).

On social cognitive variables, some associations were emerged with the demographic variables, so this domain treated in a different manner. We conducted analysis of covariance (ANCOVA) on hostile attribution biases, and number of response generation variables with age as a covariate and MANOVA with subsequent ANOVAs on other social cognitive variables. Significant main effects were appeared on all social cognitive variables except positive evaluation of competent outcome for aggression severity groups (see Table 14). To see the differences between the groups, Post hoc analysis was computed. Post hoc analyses by using the Bonferroni test revealed non-significant mean differences between moderately aggressive and severely aggressive children on number of response generation, aggressive and competent response

generation, and outcome expectation variables (see Table 15). Results were in the expected direction.

ANCOVA and subsequent ANOVAs shown mixed results of social status for social cognitive variables. Significant main effects of social status were demonstrated on encoding relevant cues, $F(4, 390) = 7.160, p = .000$, hostile attribution biases, $F(4, 389) = 9.306, p = .000$, number of response generation, $F(4, 389) = 10.940, p = .001$, and positive evaluation of aggressive outcome, $F(4, 390) = 23.941, p = .000$ and competent outcome, $F(4, 390) = 79.908, p = .000$. Non-significant main effects were found for, generation of aggressive and competent responses, and outcome expectation. ANOVAs and ANCOVA yielded significant interaction effects (*Group x Social Status*) on encoding of relevant cues, $F(4, 390) = 6.532, p = .000$, number of response generation, $F(4, 389) = 7.269, p = .000$, generation of aggressive response, $F(4, 390) = 2.756, p = .028$, and positive evaluation of aggressive outcome, $F(4, 390) = 6.815, p = .000$ and competent outcome, $F(4, 390) = 7.569, p = .000$. Non-significant interaction effects were found on hostile attribution biases, $F(4, 389) = 1.009, p = .402$, generation of competent responses, $F(4, 390) = 1.835, p = .121$, and outcome expectations (RAT), $F(4, 390) = 1.725, p = .144$, and outcome expectations (ATR), $F(4, 390) = 0.965, p = .426$.

Pairwise comparison between aggression severity groups with different social status revealed that aggression severity played a significant role in children's social cognitive patterns. Moderately aggressive and severely aggressive boys had faulty cognitive patterns as compared to nonaggressive boys. They had hostile biases, limited

cue detection, more endorsements for aggressive responses and high positive evaluations and expectations to aggressive outcomes than competent outcomes. These social cognitive deficiencies were more obvious in moderately aggressive and severely aggressive children with rejected status than other comparison groups (see Table 17).

Table 14*Difference among aggression severity groups on the social competence domain ((N= 401)*

Variables	Nonaggressive		Moderately Aggressive		Severely Aggressive		F	p	η^2
	(n=180)		(n=100)		(n=121)				
	M	SD	M	SD	M	SD			
Social Behavior									
Social Preference	.95	1.27	-.82	1.21	-2.10	1.03	4.68	.010	.023
Social Competence	22.13	5.19	21.68	3.14	20.51	2.33	16.39	.000	.078
Social Support	10.55	1.33	7.82	1.27	8.08	1.25	71.86	.000	.269
Social Cognition									
Encoding Relevant Cue	14.24	1.51	12.48	1.55	11.73	1.28	31.55	.000	.139
Hostile Attribution Biases ^a	8.57	1.35	11.13	2.06	11.73	1.71	27.99	.000	.126
Responses Generation ^a	32.19	2.09	30.29	1.26	30.02	1.49	18.459	.000	.086
Generation of Aggressive Response	7.82	4.71	15.02	4.77	15.11	4.08	32.424	.000	.143

Generation of Competent Response	14.76	4.96	6.80	4.76	6.74	3.90	35.022	.000	.152
Positive Evaluation of Aggressive Outcome	21.67	2.90	26.94	5.22	29.88	3.66	21.477	.000	.099
Positive Evaluation of Competent Outcome	26.44	9.13	26.03	5.96	23.82	3.57	.190	.827	.001
Outcome Expectation (RAT)	9.69	1.71	7.32	1.14	6.79	1.30	35.901	.000	.155
Outcome Expectation (ATR)	9.83	1.81	7.29	1.17	7.23	1.16	39.077	.000	.167

For ANCOVA (df =2,389); for ANOVA (df =2,390)

Note: a=age of the child is used as a covariate; η^2 =Partial eta squared values are suggestive of significant effect size. Cohen (1969) classified effect of 0.2 as small, 0.5 as medium, and 0.8 or higher as large.

Table 15*Post hoc analysis of group difference on the social competence domain (N=401)*

Variables	(I) Aggression severity groups	(J) Aggression severity groups	Mean Difference (I-J)	(i-j)	S.E	95% CI	
						LL	UL
Social Preference	Nonaggressive	Moderately Aggressive	NA < MA	1.77***	.069	1.63	1.91
	Nonaggressive	Severely Aggressive	NA < SA	3.05***	.066	2.92	3.18
	Moderately Aggressive	Severely Aggressive	MA < SA	1.28***	.075	1.14	1.43
Social Competence	Nonaggressive	Moderately Aggressive	NA < MA	.45 NS	.290	-.12	1.02
	Nonaggressive	Severely Aggressive	NA < SA	1.62***	.275	1.08	2.17
	Moderately Aggressive	Severely Aggressive	MA < SA	1.17***	.315	.56	1.79
Social Support	Nonaggressive	Moderately Aggressive	NA < MA	2.73***	.162	2.41	3.05
	Nonaggressive	Severely Aggressive	NA < SA	2.47***	.153	2.17	2.77
	Moderately Aggressive	Severely Aggressive	MA < SA	-.26 NS	.176	-.61	.08
Encoding Relevant	Nonaggressive	Moderately Aggressive	NA < MA	1.77***	.164	1.45	2.09
Cue	Nonaggressive	Severely Aggressive	NA < SA	2.51***	.155	2.21	2.82
	Moderately Aggressive	Severely Aggressive	MA < SA	.74***	.178	.39	1.09
Hostile Attribution	Nonaggressive	Moderately Aggressive	NA < MA	-2.56***	.196	-2.94	-2.17
Biases	Nonaggressive	Severely Aggressive	NA < SA	-3.16***	.185	-3.53	-2.80

	Moderately Aggressive	Severely Aggressive	MA<SA	-.60**	.213	-1.02	-.19
Responses Generation	Nonaggressive	Moderately Aggressive	NA< MA	1.90***	.183	1.54	2.26
	Nonaggressive	Severely Aggressive	NA< SA	2.16***	.173	1.82	2.50
Generation of	Moderately Aggressive	Severely Aggressive	MA<SA	.26 NS	.198	-.13	.65
Aggressive Response	Nonaggressive	Moderately Aggressive	NA< MA	-7.20***	.560	-8.30	-6.10
	Nonaggressive	Severely Aggressive	NA< SA	-7.29***	.531	-8.33	-6.24
Generation of	Moderately Aggressive	Severely Aggressive	MA<SA	-.09 NS	.608	-1.28	1.11
Competent Response	Nonaggressive	Moderately Aggressive	NA< MA	7.95***	.573	6.83	9.08
	Nonaggressive	Severely Aggressive	NA< SA	8.01***	.543	6.95	9.08
Positive Evaluation of	Moderately Aggressive	Severely Aggressive	MA<SA	.06 NS	.622	-1.16	1.28
Aggressive Outcome	Nonaggressive	Moderately Aggressive	NA< MA	-5.27***	.398	-6.06	-4.49
	Nonaggressive	Severely Aggressive	NA< SA	-8.22***	.377	-8.96	-7.48
Positive Evaluation of	Moderately Aggressive	Severely Aggressive	MA<SA	-2.94***	.432	-3.79	-2.09
Competent Outcome	Nonaggressive	Moderately Aggressive	NA< MA	.41 NS	.560	-.69	1.52
	Nonaggressive	Severely Aggressive	NA< SA	2.63***	.531	1.58	3.67
Outcome Expectation	Moderately Aggressive	Severely Aggressive	MA<SA	-.41 NS	.560	-1.52	.69
(RAT)	Nonaggressive	Moderately Aggressive	NA< MA	2.37***	.181	2.02	2.73
	Nonaggressive	Severely Aggressive	NA< SA	2.90***	.172	2.56	3.23

	Moderately Aggressive	Severely Aggressive	MA<SA	.53**	.197	.14	.91
Outcome Expectation	Nonaggressive	Moderately Aggressive	NA< MA	2.55***	.186	2.18	2.91
(ATR)	Nonaggressive	Severely Aggressive	NA< SA	2.60***	.176	2.25	2.95
	Moderately Aggressive	Severely Aggressive	MA<SA	.05 NS	.202	-.34	.45

*p<.05, **p<.01, ***p<.001, NS=Non significant

Note: NA= Nonaggressive, MA= Moderately Aggressive, SA= Severely Aggressive children,

2	Rejected nonaggressive	13.64	2.13	.000									
3	Neglected nonaggressive	16.92	3.71	.000	.000								
4	Average nonaggressive	22.83	4.32	.000	.000	.000							
5	Popular moderately aggressive	25.18	2.09	NS	.000	.000	.009						
6	Rejected moderately aggressive	20.12	2.40	.000	.000	.000	.000	.000					
7	Controversial moderately aggressive	24.15	2.70	.013	.000	.000	NS	NS	.000				
8	Average moderately aggressive	24.25	1.71	.023	.000	.000	NS	NS	.000	NS			
9	Popular severely aggressive	25.00	1.00	NS	.000	.000	NS	NS	.000	NS	NS		
10	Rejected severely aggressive	20.22	2.11	.000	.000	.000	.000	.000	NS	.000	.000	.001	
11	Controversial severely aggressive	24.20	1.92	NS	.000	.000	NS	NS	.000	NS	NS	NS	.000
Social Support													
1	Popular nonaggressive	10.51	1.38										
2	Rejected nonaggressive	10.57	1.34	NS									
3	Neglected nonaggressive	10.52	1.15	NS	NS								
4	Average nonaggressive	10.83	1.58	NS	NS	NS							
5	Popular moderately aggressive	7.36	1.29	.000	.000	.000	.000						
6	Rejected moderately aggressive	7.94	1.21	.000	.000	.000	.000	NS					
7	Controversial moderately aggressive	7.77	1.64	.000	.000	.000	.000	NS	NS				

8	Average moderately aggressive	7.67	1.16	.000	.000	.000	.000	NS	NS	NS			
9	Popular severely aggressive	8.33	1.53	.005	.007	.005	.002	NS	NS	NS	NS		
10	Rejected severely aggressive	8.08	1.27	.000	.000	.000	.000	NS	NS	NS	NS	NS	
11	Controversial severely aggressive	8.00	1.00	.000	.000	.000	.000	NS	NS	NS	NS	NS	NS

Note: only significant differences at $p < .05$ are reported.

2	Rejected nonaggressive	9.00	1.57	NS									
3	Neglected nonaggressive	9.20	2.11	.000	NS								
4	Average nonaggressive	8.56	.922	NS	NS	NS							
5	Popular moderately aggressive	10.55	1.75	.000	.015	.011	.001						
6	Rejected moderately aggressive	11.74	2.09	.000	.000	.000	.000	.021					
7	Controversial moderately aggressive	9.77	1.17	.001	NS	NS	.035	NS	.000				
8	Average moderately aggressive	9.83	1.53	.001	NS	NS	.030	NS	.000	NS			
9	Popular severely aggressive	10.33	2.31	.021	NS	NS	.071	NS	NS	NS	NS		
10	Rejected severely aggressive	11.86	1.67	.000	.000	.000	.000	.009	NS	.000	.000	NS	
11	Controversial severely aggressive	9.80	.447	.027	NS	NS	NS	NS	.008	NS	NS	NS	.004
Responses Generation													
1	Popular nonaggressive	33.45	1.72										
2	Rejected nonaggressive	30.21	1.31	.000									
3	Neglected nonaggressive	30.58	1.37	.000	NS								
4	Average nonaggressive	31.33	1.28	.000	.033	NS							
5	Popular moderately aggressive	30.36	1.12	.000	NS	NS	NS						
6	Rejected moderately aggressive	30.31	1.32	.000	NS	NS	.009	NS					
7	Controversial moderately aggressive	30.69	1.11	.000	NS	NS	NS	NS	NS				

2	Rejected nonaggressive	14.85	5.35	NS									
3	Neglected nonaggressive	14.66	4.85	NS	NS								
4	Average nonaggressive	14.22	4.22	NS	NS	NS							
5	Popular moderately aggressive	6.45	3.01	.000	.000	.000	.000						
6	Rejected moderately aggressive	6.49	4.61	.000	.000	.000	.000	NS					
7	Controversial moderately aggressive	6.00	4.67	.000	.000	.000	.000	NS	NS				
8	Average moderately aggressive	9.67	6.36	.003	.000	.001	.008	NS	.029	.048			
9	Popular severely aggressive	11.00	7.00	NS	NS	NS	NS	NS	NS	NS	NS		
10	Rejected severely aggressive	6.53	3.77	.000	.000	.000	.000	NS	NS	NS	.025	NS	
11	Controversial severely aggressive	9.00	3.67	.011	.006	.009	.026	NS	NS	NS	NS	NS	NS
Positive Evaluation of Aggressive Outcome													
1	Popular nonaggressive	20.37	2.07										
2	Rejected nonaggressive	23.62	2.08	.000									
3	Neglected nonaggressive	22.71	4.58	.011	NS								
4	Average nonaggressive	22.50	3.65	.010	NS	NS							
5	Popular moderately aggressive	24.18	5.74	.000	NS	NS	NS						
6	Rejected moderately aggressive	29.49	3.16	.000	.000	.000	.000	.000					
7	Controversial moderately aggressive	21.54	3.07	NS	.037	NS	NS	.044	.000				

2	Rejected nonaggressive	9.47	1.73	NS									
3	Neglected nonaggressive	9.94	1.67	NS	NS								
4	Average nonaggressive	9.78	1.77	NS	NS	NS							
5	Popular moderately aggressive	7.45	.820	.000	.000	.000	.000						
6	Rejected moderately aggressive	7.18	1.22	.000	.000	.000	.000	NS					
7	Controversial moderately aggressive	7.31	1.03	.000	.000	.000	.000	NS	NS				
8	Average moderately aggressive	7.92	.900	.000	.001	.000	.001	NS	NS	NS			
9	Popular severely aggressive	8.00	.210	.017	NS	.026	.051	NS	NS	NS	NS		
10	Rejected severely aggressive	6.79	1.30	.000	.000	.000	.000	NS	NS	NS	.011	NS	NS
11	Controversial severely aggressive	6.20	1.10	.000	.000	.000	.000	NS	NS	NS	NS	NS	NS
Outcome Expectation (ATR)													
1	Popular nonaggressive	10.14	1.46										
2	Rejected nonaggressive	9.66	1.85	NS									
3	Neglected nonaggressive	10.14	1.81	NS	NS								
4	Average nonaggressive	9.67	1.88	NS	NS	NS							
5	Popular moderately aggressive	7.09	1.30	.000	.000	.000	.000						
6	Rejected moderately aggressive	7.25	1.13	.000	.000	.000	.000	NS					
7	Controversial moderately aggressive	7.62	1.19	.000	.000	.000	.000	NS	NS				

8	Average moderately aggressive	7.33	1.30	.000	.000	.000	.000	NS	NS	NS			
9	Popular severely aggressive	8.33	.577	NS	NS	.042	NS	NS	NS	NS	NS		
10	Rejected severely aggressive	7.22	1.15	.000	.000	.000	.000	NS	NS	NS	NS	NS	
11	Controversial severely aggressive	6.80	1.30	.000	.000	.000	.000	NS	NS	NS	NS	NS	NS

Note: only significant differences at $p < .05$ are reported.

School Bonding Domain. Pillai's trace in MANOVA showed significant main effects of aggression severity groups, $V = 0.040$, $F(2, 390) = 4.026$, $p = .003$ and social status, $V = 0.158$, $F(4, 390) = 8.368$, $p < .001$, with a significant *Group X Social Status* interaction effect, $V = 0.041$, $F(4, 390) = 2.021$, $p = .020$, on school bonding variables. Subsequent univariate analysis (ANOVA) revealed a significant main effect for attitude towards school and teachers, whereas a non-significant main effect for perceived academic competence of aggression severity groups. Post hoc analyses using the Bonferroni test revealed significant mean differences between the all groups on attitude towards school and teachers, but a non-significant mean difference was found for moderately aggressive ($M=11.03$, $SD=2.41$), and severely aggressive boys ($M=10.58$, $SD=1.76$) on perceived academic competence (see Table 18 & 19).

ANOVA revealed a significant main effect of social status on attitude towards school and teachers, $F(4, 390) = 14.460$, $p = .000$, and non-significant *Group X Social Status* interaction effect, $F(4, 390) = 1.238$, $p = .294$. ANOVA also demonstrated a significant main effect of social status, $F(4, 390) = 7.829$, $p = .000$, and significant *Group X Social Status* interaction effect, $F(4, 390) = 2.961$, $p = .020$, for perceived academic competence.

Pairwise comparison between aggression severity groups with different social status revealed that rejected children (nonaggressive, moderately aggressive and severely aggressive) relatively scored low on school bonding domain as compared to popular status boys with aggression severity groups (Table 20).

Table 18

Difference among aggression severity groups on the school bonding domain ((N= 401)

Variables	Nonaggressive (n=180)		Moderately Aggressive (n=100)		Severely Aggressive (n=121)		F	p	η^2
	M	SD	M	SD	M	SD			
Attitude towards School & Teachers	54.16	5.52	51.13	5.08	47.84	4.35	7.90	.000	.039
Perceived Academic Competence	12.07	2.69	11.03	2.41	10.58	1.76	.829	.437	.004

df = 2,390

Note: η^2 = Partial eta squared values are suggestive of significant effect size. Cohen (1969) classified effect of 0.2 as small, 0.5 as medium, and 0.8 or higher as large

Table 19

Post hoc analysis of group difference on the school bonding domain (N=401)

Variables	(I) Aggression severity	(J) Aggression severity	Mean Difference (I-J)	(i-j)	S.E	95% CI	
	groups	groups				LL	UL
Attitude towards	Nonaggressive	Moderately Aggressive	NA< MA	3.03 ^{***}	.560	1.93	4.13
School & Teachers	Nonaggressive	Severely Aggressive	NA< SA	6.32 ^{***}	.531	5.28	7.36
	Moderately Aggressive	Severely Aggressive	MA<SA	3.29 ^{***}	.608	2.09	4.48
Perceived	Nonaggressive	Moderately Aggressive	NA< MA	1.04 ^{***}	.264	.52	1.56
Academic	Nonaggressive	Severely Aggressive	NA< SA	1.50 ^{***}	.250	1.01	1.99
Competence	Moderately Aggressive	Severely Aggressive	MA<SA	.45 NS	.287	-.11	1.02

*p<.05, **p<.01, ***p<.001, NS=Non significant

Note: NA= Nonaggressive, MA= Moderately Aggressive, SA= Severely Aggressive children

3	Neglected nonaggressive	10.24	1.61	.000	NS									
4	Average nonaggressive	11.06	2.49	.000	NS	NS								
5	Popular moderately aggressive	12.27	3.38	NS	.021	.004	NS							
6	Rejected moderately aggressive	10.49	1.81	.000	NS	NS	NS	.010						
7	Controversial moderately aggressive	11.15	2.30	.000	NS	NS	NS	NS	NS					
8	Average moderately aggressive	12.67	3.39	NS	.005	.000	.042	NS	.001	NS				
9	Popular severely aggressive	10.67	1.53	.026	NS	NS	NS	NS	NS	NS	NS			
10	Rejected severely aggressive	10.54	1.76	.000	NS	NS	NS	.010	NS	NS	.001	NS		
11	Controversial severely aggressive	11.20	2.17	.021	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Note: only significant differences at $p < .05$ are reported.

Parenting Practices Domain. Some associations between parenting practices and demographic variables (i.e., child age, father's education) were emerged in preliminary analysis, so this domain also treated in a different manner. We conducted ANCOVAs on mother and child reported corporal punishment with age as a covariate, and on child and mother reported poor monitoring, inconsistent discipline, and corporal punishment with father's education as a covariate. ANOVAs and ANCOVAs revealed that moderately aggressive and severely aggressive children experienced more harsh parenting behavior as compared to nonaggressive children. Post hoc analyses using the Bonferroni test revealed non-significant mean differences between moderately aggressive and severely aggressive children on poor monitoring, inconsistent discipline, and corporal punishment. Significant mean differences were found on positive parenting and parental involvement the all groups (see Table 21 & 22).

Non-significant main effects of social status were found on all parenting practices variables except positive parenting-child reported, ($F(4, 390) = 2.332, p = .050$), and positive parenting-mother reported, ($F(4, 390) = 2.492, p = .043$). ANOVAs and ANCOVs demonstrated non-significant *Group X Social Status* interaction effects for parenting practices.

Pairwise comparison between aggression severity groups with different social status revealed that social status did not linked significantly with parenting behavior. Parental involvement was high for nonaggressive children with low levels of corporal punishment, inconsistent discipline and poor monitoring (see Table 23 & 24).

Table 21

Difference among aggression severity groups in the parenting practice domain ((N= 401)

Variables	Nonaggressive (n=180)		Moderately Aggressive (n=100)		Severely Aggressive (n=121)		F	p	η^2
	M	SD	M	SD	M	SD			
Mother-reported									
Parental Involvement	35.51	2.812	32.08	2.344	30.64	2.479	29.63	.000	.132
Positive Parenting	19.65	2.065	18.83	1.990	17.80	1.320	7.73	.001	.038
Poor Monitoring ^b	18.24	1.51	21.72	1.801	21.88	1.732	75.51	.000	.279
Inconsistent Discipline ^b	12.17	2.19	16.06	4.152	16.64	4.430	27.38	.000	.123
Corporal Punishment ^{a,b}	6.91	1.05	8.47	1.045	8.51	1.115	31.90	.000	.141
Child-reported									
Parental Involvement (Mother)	34.85	2.547	31.96	2.191	30.43	2.011	29.16	.000	.130
Parental Involvement (Father)	32.87	2.573	29.86	2.131	28.27	1.930	32.08	.000	.141
Positive Parenting	19.76	1.792	17.95	1.532	16.81	1.530	28.31	.000	.127
Poor Monitoring ^b	19.93	1.24	25.41	3.076	26.16	2.922	85.69	.000	.305
Inconsistent Discipline ^b	14.06	1.37	16.34	1.577	16.43	1.268	33.98	.000	.148
Corporal Punishment ^{a,b}	7.66	.988	10.02	1.191	10.91	1.053	96.63	.000	.331

For ANCOVA (df =2,389); for ANOVA (df =2,390)

Note: a=age of the child, b=father's education are used as covariate; η^2 =Partial eta squared values are suggestive of significant effect size. Cohen (1969) classified effect of 0.2 as small, 0.5 as medium, and 0.8 or higher as large.

Table 22*Post hoc analysis of group difference in the parenting practice domain (N=401)*

Variables	(I) Aggression severity	(J) Aggression severity	Mean Difference (I-J)	(i-j)	S.E	95% CI	
	groups	groups				LL	UL
Parental	Nonaggressive	Moderately Aggressive	NA < MA	3.43 ^{***}	.322	2.65	4.20
Involvement-MR	Nonaggressive	Severely Aggressive	NA < SA	4.86 ^{***}	.305	4.13	5.60
	Moderately Aggressive	Severely Aggressive	MA < SA	1.44 ^{***}	.350	.60	2.28
Positive Parenting-MR	Nonaggressive	Moderately Aggressive	NA < MA	.82 [*]	.227	.27	1.37
	Nonaggressive	Severely Aggressive	NA < SA	1.85 ^{***}	.216	1.33	2.37
	Moderately Aggressive	Severely Aggressive	MA < SA	1.03 ^{***}	.247	.44	1.63
Poor Monitoring-MR	Nonaggressive	Moderately Aggressive	NA < MA	-3.48 ^{***}	.205	-3.97	-2.99
	Nonaggressive	Severely Aggressive	NA < SA	-3.63 ^{***}	.194	-4.10	-3.16
	Moderately Aggressive	Severely Aggressive	MA < SA	-.15 NS	.223	-.69	.38
Inconsistent	Nonaggressive	Moderately Aggressive	NA < MA	-3.89 ^{***}	.439	-4.94	-2.83
Discipline-MR	Nonaggressive	Severely Aggressive	NA < SA	-4.47 ^{***}	.416	-5.47	-3.47
	Moderately Aggressive	Severely Aggressive	MA < SA	-.58 NS	.476	-1.73	.56
Corporal	Nonaggressive	Moderately Aggressive	NA < MA	-1.56 ^{***}	.133	-1.88	-1.24
Punishment-MR	Nonaggressive	Severely Aggressive	NA < SA	-1.60 ^{***}	.126	-1.91	-1.30
	Moderately Aggressive	Severely Aggressive	MA < SA	-.04NS	.144	-.39	.30

Parental Involvement (Mother) -CR	Nonaggressive	Moderately Aggressive	NA < MA	2.89 ^{***}	.286	2.20	3.58
	Nonaggressive	Severely Aggressive	NA < SA	4.42 ^{***}	.271	3.77	5.08
	Moderately Aggressive	Severely Aggressive	MA < SA	1.54 ^{***}	.311	.79	2.28
Parental Involvement (Father) -CR	Nonaggressive	Moderately Aggressive	NA < MA	3.01 ^{***}	.284	2.32	3.69
	Nonaggressive	Severely Aggressive	NA < SA	4.60 ^{***}	.269	3.95	5.25
	Moderately Aggressive	Severely Aggressive	MA < SA	1.59 ^{***}	.308	.85	2.34
Positive Parenting-CR	Nonaggressive	Moderately Aggressive	NA < MA	1.81 ^{***}	.201	1.33	2.29
	Nonaggressive	Severely Aggressive	NA < SA	2.95 ^{***}	.191	2.49	3.41
	Moderately Aggressive	Severely Aggressive	MA < SA	1.14 ^{***}	.219	.62	1.67
Poor Monitoring-CR	Nonaggressive	Moderately Aggressive	NA < MA	-5.47 ^{***}	.293	-6.18	-4.77
	Nonaggressive	Severely Aggressive	NA < SA	-6.23 ^{***}	.278	-6.89	-5.56
	Moderately Aggressive	Severely Aggressive	MA < SA	-.75 NS	.318	-1.52	.01
Inconsistent Discipline-CR	Nonaggressive	Moderately Aggressive	NA < MA	-2.28 ^{***}	.171	-2.69	-1.86
	Nonaggressive	Severely Aggressive	NA < SA	-2.37 ^{***}	.162	-2.76	-1.98
	Moderately Aggressive	Severely Aggressive	MA < SA	-.10 NS	.185	-.54	.35
Corporal Punishment-CR	Nonaggressive	Moderately Aggressive	NA < MA	-2.36 ^{***}	.131	-2.68	-2.05
	Nonaggressive	Severely Aggressive	NA < SA	-3.25 ^{***}	.124	-3.55	-2.95
	Moderately Aggressive	Severely Aggressive	MA < SA	-.89 [*]	.142	-1.23	-.55

*p<.05, **p<.01, ***p<.001, NS=Non significant

Note: NA= Nonaggressive, MA= Moderately Aggressive, SA= Severely Aggressive children; MR=Mother report; CR=Child report

3	Neglected nonaggressive	19.00	2.18	.000	NS								
4	Average nonaggressive	19.28	1.71	NS	NS	NS							
5	Popular moderately aggressive	19.55	1.86	NS	NS	NS	NS						
6	Rejected moderately aggressive	18.55	2.11	.000	NS	NS	NS	NS					
7	Controversial moderately aggressive	19.54	1.45	NS	NS	.046	NS	NS	NS				
8	Average moderately aggressive	18.92	1.73	NS	NS	NS	NS	NS	NS	NS			
9	Popular severely aggressive	17.33	.577	.013	NS	NS	NS	NS	NS	NS	NS		
10	Rejected severely aggressive	17.78	1.35	.000	.009	.046	.001	.002	.007	.001	.041	NS	
11	Controversial severely aggressive	18.60	.548	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Poor Monitoring													
1	Popular nonaggressive	18.05	1.45										
2	Rejected nonaggressive	18.36	1.55	NS									
3	Neglected nonaggressive	18.62	1.52	NS	NS								
4	Average nonaggressive	18.17	1.65	NS	NS	NS							
5	Popular moderately aggressive	22.36	1.63	.000	.000	.000	.000						
6	Rejected moderately aggressive	21.58	1.86	.000	.000	.000	.000	NS					
7	Controversial moderately aggressive	21.31	1.55	.000	.000	.000	.000	NS	NS				
8	Average moderately aggressive	22.33	1.78	.000	.000	.000	.000	NS	NS	NS			
9	Popular severely aggressive	21.33	2.89	.000	.000	.000	.000	NS	NS	NS	NS		
10	Rejected severely aggressive	21.86	1.73	.000	.000	.000	.000	NS	NS	NS	NS	NS	

11	Controversial severely aggressive	22.60	1.14	.000	.000	.000	.000	NS	NS	NS	NS	NS	NS
Inconsistent Discipline													
1	Popular nonaggressive	12.04	2.14										
2	Rejected nonaggressive	12.00	2.42	NS									
3	Neglected nonaggressive	12.46	2.21	NS	NS								
4	Average nonaggressive	12.22	2.32	NS	NS	NS							
5	Popular moderately aggressive	17.09	4.09	.000	.000	.000	.000						
6	Rejected moderately aggressive	15.89	4.29	.000	.000	.000	.000	NS					
7	Controversial moderately aggressive	16.15	4.34	.000	.000	.000	.000	NS	NS				
8	Average moderately aggressive	15.92	3.55	.000	.000	.000	.000	NS	NS	NS			
9	Popular severely aggressive	20.00	.412	.000	.000	.000	.000	NS	NS	NS	NS		
10	Rejected severely aggressive	16.62	4.45	.000	.000	.000	.000	NS	.000	NS	.001	NS	
11	Controversial severely aggressive	15.20	4.87	.000	.000	.000	.000	NS	NS	NS	NS	NS	NS
Corporal Punishment													
1	Popular nonaggressive	6.96	.896										
2	Rejected nonaggressive	6.50	1.09	NS									
3	Neglected nonaggressive	6.98	1.24	.001	NS								
4	Average nonaggressive	6.72	1.18	.008	NS	NS							
5	Popular moderately aggressive	8.27	1.01	.000	.000	.000	.000						
6	Rejected moderately aggressive	8.55	1.06	.000	.000	.000	.000	NS					

7	Controversial moderately aggressive	8.23	.725	.000	.000	.000	.000	NS	NS				
8	Average moderately aggressive	8.42	1.31	.000	.000	.000	.000	NS	NS	NS			
9	Popular severely aggressive	7.67	2.08	.000	.000	.000	.000	.049	NS	NS	NS		
10	Rejected severely aggressive	8.51	1.08	.000	.000	.000	.000	.003	.001	.006	NS	NS	
11	Controversial severely aggressive	9.00	1.23	.000	.000	.000	.000	.007	.024	.013	.046	NS	NS

Note: only significant differences at $p < .05$ are reported.

3	Neglected nonaggressive	32.32	2.65	.020	NS								
4	Average nonaggressive	32.56	1.95	NS	NS	NS							
5	Popular moderately aggressive	30.36	1.96	.000	.017	.010	.012						
6	Rejected moderately aggressive	29.68	2.00	.000	.000	.000	.000	NS					
7	Controversial moderately aggressive	30.54	2.44	.000	.021	.013	.016	NS	NS				
8	Average moderately aggressive	29.67	2.64	.000	.001	.000	.001	NS	NS	NS			
9	Popular severely aggressive	28.67	2.52	.001	.007	.007	.007	NS	NS	NS	NS		
10	Rejected severely aggressive	28.21	1.92	.000	.000	.000	.000	.003	.000	.001	.036	NS	
11	Controversial severely aggressive	29.40	1.82	.000	.008	.007	.007	NS	NS	NS	NS	NS	NS
Positive Parenting													
1	Popular nonaggressive	20.22	1.84										
2	Rejected nonaggressive	19.79	1.19	NS									
3	Neglected nonaggressive	18.98	1.66	.000	NS								
4	Average nonaggressive	19.39	1.54	.045	NS	NS							
5	Popular moderately aggressive	17.64	1.43	.000	.001	.013	.005						
6	Rejected moderately aggressive	17.78	1.62	.001	.000	.000	.000	NS					
7	Controversial moderately aggressive	18.62	1.12	.000	NS	NS	NS	NS	NS				
8	Average moderately aggressive	18.42	1.38	.000	.032	NS	NS	NS	NS	NS			

3	Neglected nonaggressive	14.14	1.53	.030	NS								
4	Average nonaggressive	14.72	1.41	NS	NS	NS							
5	Popular moderately aggressive	15.27	1.68	.000	.000	.000	.000						
6	Rejected moderately aggressive	16.23	1.53	.000	.000	.000	.000	NS					
7	Controversial moderately aggressive	17.31	1.32	.000	.000	.000	.000	NS	NS				
8	Average moderately aggressive	16.83	1.40	.000	.000	.000	.000	NS	NS	NS			
9	Popular severely aggressive	16.67	.577	.000	.000	.000	.000	NS	NS	NS	NS		
10	Rejected severely aggressive	16.41	1.28	.000	.000	.000	.000	NS	NS	NS	NS	NS	
11	Controversial severely aggressive	16.80	1.48	.000	.000	.000	.000	NS	NS	NS	NS	NS	NS
Corporal Punishment													
1	Popular nonaggressive	7.83	.942										
2	Rejected nonaggressive	7.64	.929	NS									
3	Neglected nonaggressive	7.50	1.06	NS	NS								
4	Average nonaggressive	7.17	.924	.017	NS	NS							
5	Popular moderately aggressive	9.45	1.04	.000	.000	.000	.000						
6	Rejected moderately aggressive	10.15	1.22	.000	.000	.000	.000	NS					
7	Controversial moderately aggressive	9.77	1.17	.000	.000	.000	.000	NS	NS				
8	Average moderately aggressive	10.08	1.17	.000	.000	.000	.000	NS	NS	NS			

9	Popular severely aggressive	11.33	.577	.000	.000	.000	.000	.010	NS	.029	NS		
10	Rejected severely aggressive	10.88	1.07	.000	.000	.000	.000	.000	NS	.001	NS	NS	
11	Controversial severely aggressive	11.20	.837	.000	.000	.000	.000	.004	.044	.015	NS	NS	NS

Note: only significant differences at $p < .05$ are reported

DISCUSSION

The Study II primarily focused on screening of aggressive children and assessment of their behavior, social and academic competence, and parenting practices. This study was conducted to follow the assumptions made by Lochman and Wells (2002a) in contextual social cognitive model on Pakistani school children, identified as moderately aggressive, severely aggressive and nonaggressive with different peer nominated social status. We believe that the results could contribute in understanding the contextual social cognitive model for aggressive Pakistani children, as well add useful support to the existing literature.

The main objective of the study was to explore the association between contextual social cognitive factors in aggressive and nonaggressive children. Over the last decade, research has found evidence of significant impact of aggression and peer rejection on child development and adjustment. Research on western societies and non-western, e.g., a study in China supported the links between peer rejection, aggression and later serious behavioral problems in adolescent and adulthood (Chen, Rubin, & Li, 1997). However, this area has not been explored scientifically in Pakistan. There are some research evidences on emotional and behavioral problems of the children (Saleem & Mahmood, 2013; Syed, Hussein, & Haidry, 2009; Syed, Hussein, & Mahmud, 2007) and children's social information processing styles (Goraya & Shamama-tus-Sabah, 2013; Mushtaq, 2007). However, the importance of peer relations and its impact on child development has never been explored properly (Mushtaq, 2007). Therefore, another key objective was to explore the links between

aggression severity in children, their social status, social cognitive patterns, school bonding, self-regulation, and parenting practices.

It was hypothesized that elevated levels of aggression in children will be associated with peer rejection, poor and faulty social information processing styles, negative parenting practices, low academic and social competencies. The overall results have supported the expected relationship between aggression severity and contextual social cognitive factors, significant differences were found between nonaggressive and aggressive (severely and moderately) children on all outcome variables.

Aggression is viewed as a severe negative response that can boost the display of social cognitive deficits in children with poor social skills, behavioral problems, and violence (e.g., Laird, Jordon, Dodge, Pettit & Bates, 2001). This study indicated a high prevalence of aggression in elementary school boys (41.6%). This finding is consistent with the previous study done by Mushtaq (2007). The prevalence of aggression in 4th, 5th, and 6th grade boys was 46.1%. These findings will help in understanding the aggressive behavior of children in the Pakistani context.

There is a considerable body of literature demonstrating that aggression is a strong predictor of peer rejection (Coie et al., 1990; Coie, Lochman, Terry, & Hyman, 1992; Kupersmidt & Coie, 1990; Kupersmidt, Coie, & Dodge, 1990; Pettit, Clawson, Dodge, & Bates, 1996). The relationship between aggression and social status is complex. It was hypothesized that aggressive children are rejected by their peers, whereas popular children show low levels of aggressiveness. Results of the present study supported the hypothesis, 21.4% nonaggressive, and 4.2 % aggressive children

were considered popular, and 2.9 % nonaggressive, and 23.5% aggressive children got rejected status from their peers.

Multivariate analysis of variance (MANOVA) was performed to test the hypothesis. 3 (aggression severity group) X 5 (social status) factorial design was used. There is no literature available which has explored the differences in social cognitive patterns, self-regulation processes, parenting practices and social and academic competencies of severely aggressive, moderately aggressive and nonaggressive children with different social status. Therefore, this research is unique and first to explore the characteristics of aggression severity groups with different social status.

It was hypothesized that severely aggressive and moderately aggressive children will display high levels of reactive and proactive aggression and dysregulated emotional distress (fearlessness and activity levels). Consistency in the results can be seen in the existing literature on the inverse relation between low impulse control and antisocial behavior (Bechtold, Cavanagh, Shulman, & Cauffman, 2013; White, Pandina, & LaGrange, 1987). The present study also presents the same direction. Significant differences were also found between severely aggressive and moderately aggressive children. Severely aggressive children had higher scores on reactive and proactive aggression and less fearful (low impulse control) than the moderately aggressive children (Table 11).

Social information processing deficiencies i.e., attributional biases, irrelevant encoding of social cues, deficiencies in the problem solving process, and positive expectation of aggressive outcomes, emerged as crucial features of aggressive children (Crick & Dodge, 1994; Dodge, 1986; Lochman & Dodge, 1994; Zelli et al., 1999). The findings of the present study indicated that aggressive children have

distorted social cognitive patterns. They differed on attributional biases, encoding of cues, aggressive response assessing skills, positive evaluation of aggressive outcome, and positive expectation of aggressive response for reducing aversive treatment. These problems are related to the severity of the aggressive behavior problems. In comparison to moderately aggressive boys, severely aggressive boys exhibited greater defects on social cognitive patterns. The findings of this research are consistent with the existing literature (Crick & Dodge, 1994; Dodge, 1980; 1986; 2006; Dodge et al., 1986; Dodge & Pettit, 2003; Gifford-Smith & Rabiner, 2004; Rabiner, Lenhart, & Lochman, 1990).

Severely aggressive children differed significantly from the other comparison groups on attitude towards school and bonding with teachers. They had significantly low scores on this domain. Aggressive behavior in children was found to be linked with academic failure, school dropouts and poor bonding with school and teachers. The research literature demonstrated a link between early disruptive problems (Ensminger & Slusarcick, 1992), low academic achievement (Garnier, Stein, & Jacobs, 1997), and low parental support with poor supervision and school drop-out (Howell & Frese, 1982; Rumberger, Ghatak, Poulos, Ritter, & Dornbusch, 1990).

The “contextual social cognitive model” also highlights the role of parenting practices in the development of childhood behavioral problems. Patterson, Reid, and Dishion (1992), demonstrated that aggression in children usually arises from the early experiences of harsh parenting, poor supervision and physical or corporal punishment. Childhood aggression is linked with parent’s inconsistent discipline practices with low involvement (Capaldi & Patterson, 1991). As hypothesized, aggressive children (moderately aggressive and severely aggressive) will experience low positive

parenting and parental involvement and higher levels of inconsistent discipline practices, poor monitoring and corporal punishment as compared to nonaggressive children. The findings supported the hypothesis. Non-significant differences were found among severely aggressive children and moderately aggressive children. They did not exhibit significant differences on receiving negative parenting practices (poor monitoring, inconsistent discipline and corporal punishment).

When asked about social status, and aggression severity, we found very interesting results. The findings of the study revealed that the social status of children did not contribute significantly to social behavior (proactive and reactive aggression). Severity aggression played significant role in elevated scores of proactive and reactive aggression. Severely aggressive and moderately aggressive children had non-significant differences except severely aggressive popular and rejected children who had significantly higher levels of proactive aggression and reactive aggressive respectively. Severely aggressive children (with popular, rejected, and controversial status) also demonstrated fearlessness than moderately aggressive and nonaggressive children with the same social status. Moderately aggressive and severely aggressive children (with rejected and controversial status) exhibited higher levels of impulsivity than the other comparison groups. Uncontrolled aggression with impulsivity and sensation seeking is a higher order trait which predicts later antisocial behavior (Caspi, 2000).

Social status played a significant role in social preference of the children in peer groups. Popular status children with severity groups (i.e., nonaggressive, moderately aggressive, and severely aggressive) had a higher preference. Rejected children (nonaggressive, moderately aggressive, or severely aggressive) scored least

on social preference. Non-aggressive boys with neglected and rejected status scored lower on social competence than the other comparison groups. Popular children (nonaggressive, moderately aggressive, and severely aggressive) and controversial children had higher scores on social competence. Moderately aggressive boys with popular, rejected, controversial, and average status scored significantly lower on social support.

Findings of the present study for aggression severity groups with different social status revealed that aggression played a significant role in children's social cognitive patterns. Moderately aggressive and severely aggressive boys had faulty cognitive patterns as compared to nonaggressive boys. They had hostile biases, limited cue detection, more endorsements for aggressive responses and high positive evaluations and expectations to aggressive outcomes than competent outcomes. These social cognitive deficiencies were more obvious in moderately aggressive and severely aggressive children with rejected status than other comparison groups.

Studies have demonstrated consistent links between social competence and academic outcomes and suggested that rejected and /or aggressive children are at risk for academic failure than the popular or prosocial peer (Dishion, 1990; Lambert, 1972; Ollendick, Weist, Borden, & Greene, 1992). The results of the present research are also consistent with the literature; rejected status played a significant role in poor academic competence and developed a weak bond with the school and teachers as compared to popular children (moderately aggressive, severely aggressive, and nonaggressive boys).

Positive parenting is linked to prosocial behavior and better emotional regulation in children. Parental involvement was higher for nonaggressive children

with low levels of corporal punishment, poor monitoring, and inconsistent discipline practices. Moderately aggressive and severely aggressive children experienced more inconsistent discipline, poor monitoring and corporal punishment from their parents (Patterson et al., 1990). Social status of the child did not link with parenting behavior in this study.

Results of the Study II provide future researchers a base for in depth exploration of aggression severity and social status in the contextual social cognitive model with a more elaborated form. This study also provides us an evidence to choose at risk aggressive children for Coping Power intervention program.

STUDY III: EFFECTIVENESS OF COPING POWER PROGRAM

Objectives of the study

The present study was carried out keeping the following objectives in mind:

- To test the efficacy of Coping Power Program (child component) in reducing aggressive behavior (proactive and reactive aggression), and unregulated emotional distress (fearlessness and impulsivity).
- To assess the effects of Coping Power Program (child component) on social cognition (attributions, social goals, response access, response evaluation and out-come expectations) of the aggressive children.
- To evaluate the impact of Coping Power Program (child component) on social behavior of aggressive children.
- To investigate the effectiveness of Coping Power Program (child component) on school bonding, and academic competency in aggressive children.
- To evaluate the impact of Coping Power Program (child component) on parenting practices of parents of aggressive children.

Hypotheses

1. Teachers and parents will report low levels of aggression in the intervention group at posttest.
2. Children in the intervention group will show low levels of fearlessness and impulsivity at posttest.

3. Children in the intervention group will exhibit better social and cognitive competencies at posttest.
4. Children in the intervention group will display improvements in academic competencies and bonding with school and teachers.
5. Coping Power Program (child component) will not display improvements in the parenting practices of the parents of children in the intervention group.
6. Teachers will report progress in intervention group's social behavior, problem solving, and social skills at the termination of intervention.

METHOD

Research Design

Randomized control trial (RCT) design was used with pre- and post-testing. We randomly assigned 121 at risk aggressive boys to the two conditions; (a) "The Coping Power (CP) group" and (b) a "control cell". Allocation sequences were computer-generated for each school. Aggressive boys were recruited from August 2011 to August 2012. The baseline data was taken during August-September. The average interval between the pre testing and post testing was 26.13 weeks (SD=1.14).

Participants

The screened children of the study II with high levels of aggression (severely aggressive/at risk) participated in the study III. 121 severely aggressive (at risk) boys were randomly divided to treatment (n=59) and control conditions (n=62).

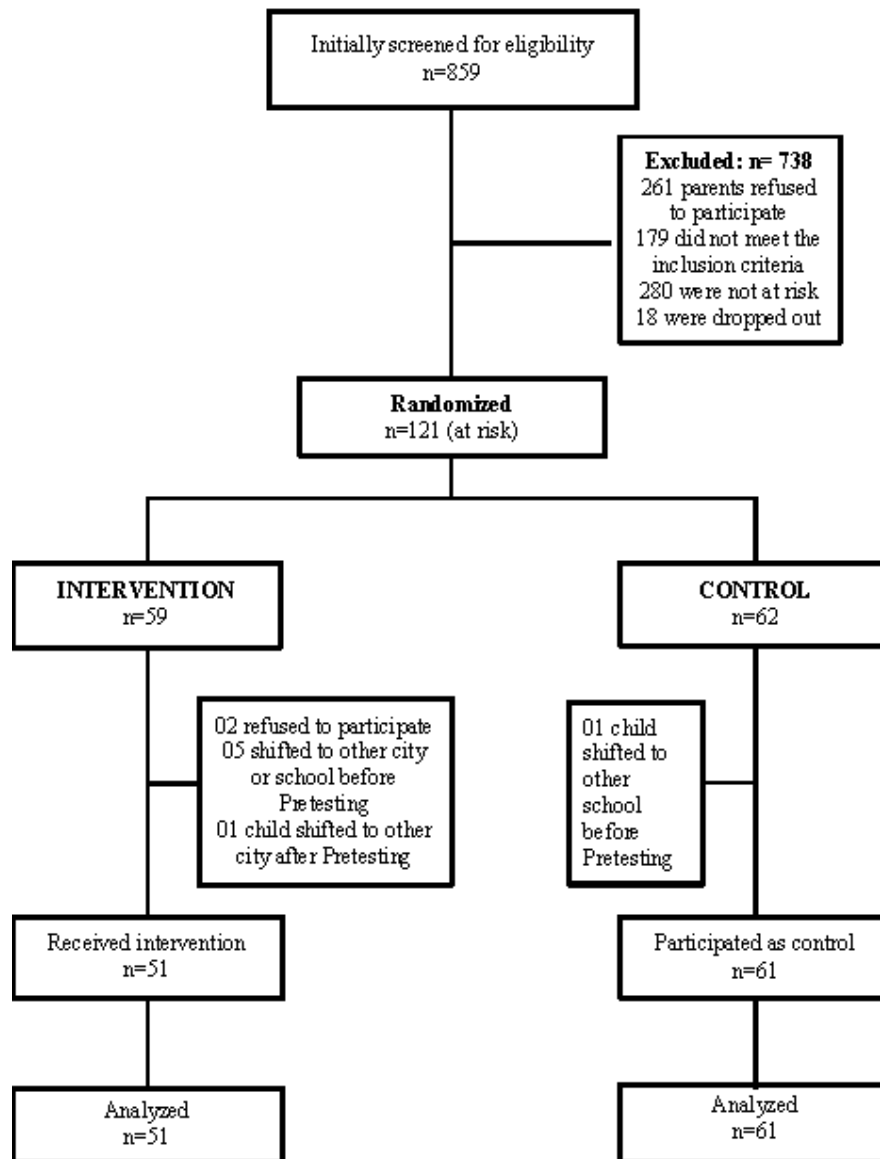


Figure 8. Consort flow diagram showing the flow of participants through each stage of the study

After allocation, two boys from the treatment condition refused to participate in the study (even after providing a brief motivational counseling session); six were shifted to other school and city before pretesting. Finally 113 at risk aggressive children (52

in the intervention group, 61 in the control group) from fifteen 5th grade classes were recruited to test the effectiveness of Coping Power Program (CPP) in five schools (two with morning and evening shifts) of Rawalpindi (see Figure 8 and Table 25 for details).

The intervention condition (CP-child component) was introduced when the targeted boys were in fifth grade. The CP intervention was lasted for one school year; as an abbreviated version of CPP was used. Fifteen teachers (for intervention and control groups) were involved in this research project. Baseline data were collected from teachers, parents, and children after summer vacations. The average age of the boys was 9.64 years (SD=0.59) at the pretesting stage. Posttest data was taken from 112 (intervention group = 51, and control group = 61) at risk aggressive children.

Table 25*At risk boys' screening and sampling details through all stages of the study*

Schools	Screened	At risk	Participated	Randomized		Participated in	Effectiveness Study of CPP	
	(N=859)	Boys	in Study II	(N=121)		Study III (Pretesting)	(N=112)	
		(N=174)	(N=121)	Experimental	Control	(N=113)	Experimental	Control
				(n=59)	(n=62)		(n=51)	(n=61)
School 1	156	32	21	11	10	20	10 ^b	10
School 2								
Morning Shift	123	22	16	8	8	15	7	8
Evening Shift	109	21	17	8	9	16	7	9
School 3								
Morning Shift	121	26	17	8	9	16	7	9
Evening Shift	113	28	17	8	9	15 ^a	6	8
School 4	111	22	17	8	9	16	7	9
School 5	126	23	16	8	8	15	7	8

Note: Computer generated random assignment to treatment or control groups was done separately for each school; CPP=Coping Power Program

a= one child left school after pretesting; b= Two intervention groups (5 boys in each group).

Measures

Intervention Procedures

Coping Power Program (CPP-Child Component)

“Coping Power Program” (Lochman & Wells, 2002a) is based on “Anger Coping Program” (Larson & Lochman, 2010). CPP is a manual based cognitive behavioral intervention that consists of 34 child sessions and 16 parent sessions. CPP focuses on establishing goals, group rules and reward, alternative solution generation, coping with anger arousal, social skills, and peer relationship. On the same theoretical and empirical grounds, an abbreviated version of the CPP is comprised of twenty-four child sessions and ten parent sessions through one school year.

In this study, CPP (child component) was administered to Pakistani children. Adapted version of CPP consists of 25 child group sessions (one extra session was added for identification of feelings session). CPP groups were managed by two members; one doctoral/MS level (research herself and two MS students led the group as a leader) and one Master level member (three MSc graduates participated as a co-leader). Leaders also completed a self-reported measure about intervention integrity after each child group meeting. This measure indicates the degree to which the objectives of each session covered (“completely,” “partially,” or “not at all”) in each meeting. The ratings of counselor and observer are necessary to assess the fidelity and efficacy of an intervention program (Lochman et al., 2009), but unavailability of the counselors in Pakistani schools and limited resources for observer ratings, fidelity report is not available in this study.

The CPP was delivered in small group of 5–7 highly aggressive boys at five schools (eight intervention groups). Each session (50–60 minutes) tailed by a planned

format of specific intervention activities. These sessions are divided into three parts; the first was “review of weekly goal sheets, homework, and content discussion”; the second was “specific activities for each session”; and the third was “assigning points (participation in activities and goal sheets), homework assignment, positive feedback, and prize box”. First and third parts were repeated in every session, whereas new subjects and skills were presented in the second part of the session. Weekly group sessions were accompanied by brief individual meetings, once-a-month (20-30 minutes) to discuss problems and difficulty in program content. The average child attendance rate was 89% in CP intervention condition (see **appendix B** for details of Coping Power Program manualized sessions).

Intervention Adherence

The intervention was delivered by researcher herself who got CP training from “Center for the Prevention of Youth Behavior Problems (CPYBP)”, University of Alabama, USA. She trained two MS-Psychology graduates (participated as “Group Leader”) and three M.Sc.-Psychology graduates (participated as “Group Co-leader”). They received two days intensive training to understand and deliver Coping Power Program and followed with weekly or twice-monthly meetings and phone call consultations to discuss the program content or sessions till the end of CP intervention.

Assessment Procedures

Outcome measures used in study II were also administered in the study III (the details on page 96). Other measures gathered during intervention and at the end of intervention were as follows.

Therapeutic Alliance Scale for Children (TASC): To measure the bonding between the child and therapist, TASC is a reliable measure designed by Shirk and Saiz (1992). This measure has been adapted by Coping Power team at the University of Alabama and additional items were included to assess the child's satisfaction with the program. The measure was administered in the middle of the intervention and at the end of the intervention.

Peer Sociometric Nominations: This measure involves collection of information on peer relationships specific to children participating in the Coping Power Program at a specific school. In the CPP group, children are asked to nominate other CPP group children for each of the following categories: like most, like least, fight, seem sad, are leaders, bother others, and are teased by others. Children are also asked to rate each of their classmates on a Likert scale from 1 ("Best friends") to 6 ("Do not know"). The measure is administered during regularly scheduled meetings or individual contacts midway through the intervention and at the end of the intervention period.

End of Year Evaluation: This measure is used to assess the social competence improvements in targeted children at the end of the intervention. This scale was developed for Fast track preventive intervention program (CPPRG, 1999a; 1999b). It measures improvements in, "behavioral" (01 item)," anger management and problem solving" (01 item), and "social skills" (07 items). The measure was recorded on a 7-point rating scale from 0 ("problems have gotten worse") to 6 ("great improvement"). A higher score indicates improvement in social, behavioral, and cognitive domains. These measures were collected at the end of the intervention (Time 2) only.

Table 26*Details of measures, source of information, and time period*

Domain/Measures	Informant	Time Period
Self-regulation		
Proactive-Reactive Aggression Scale	Teacher & Mother	T1, T2
Behavioral Improvement ^a	Teacher	T2
Early Adolescent Temperament	Child	T1, T2
Social Competence		
Social Competence	Child	T1, T2
Social Support	Child	T1, T2
Social Skills Improvement ^a	Teacher	T2
Home Interview With Child	Child	T1, T2
Social Problem Solving	Child	T1, T2
Social Information Processing (videos)	Child	T1, T2
Outcome Expectations Questionnaire	Child	T1, T2
Problem Solving Improvement ^a	Teacher	T2
School Bonding		
School Bonding	Child	T1, T2
Children Perceived Academic Competence	Child	T1, T2
Parenting Practices		
Alabama Parenting Questionnaire	Child & Mother	T1, T2

Note: a= teacher rated improvements in children's behavioral, problem solving and social skills collected only at Times 2 (at the end of the intervention); T1=Pretesting time, T2=Post-testing time

Procedure

Parents and targeted boys were contacted in spring 2011 to get informed consent for participation. 113 parents and children provided consent for participation. Assessments from the mothers were collected either through the help of school authorities or home visits in a few cases; children and teachers' measures were obtained in their school settings. Data was collected by four trained research staff (psychology graduates) who were blind to the boys' status (intervention and control group). Time 1 (pretest) evaluations were taken prior to the CPP trial in August 2011 and Time 2 (post-test) assessments were administered at the end of intervention in April 2012. An incentive was also given to the control condition boys for their participation in the study.

RESULTS

This section of the study describes the data analyses into two parts. The first part includes the preliminary analyses to see the equivalence of sample groups at baseline on demographic and outcome variables. This analysis provides us a comprehensive picture regarding differences or equivalence of control and intervention group.

The second part describes the analyses for intervention effects. Analyses of covariance (ANCOVAs) were used to evaluate the effectiveness of CP program. A series of repeated measures analyses of variance (ANOVAs) was conducted to examine the interaction effects and effect sizes were also calculated.

Part I: Equivalence of Sample on Demographic and Outcome Variables at Baseline

Equivalence analyses were conducted for outcome and demographic measures. Chi-squares for categorical, and t-tests for continuous demographic variables shown non-significant differences between intervention and control group at baseline assessment (see Table 27). t-tests were also conducted for outcome measures. Non-significant differences were found on outcome measures except school bonding and parental involvement at the baseline evaluation.

A significant difference was found for school bonding, $t(111)=2.095, p=.038$, with the control group ($M=48.51, SD=4.51$) having higher baseline scores than the intervention group. Some significant differences were found for parenting practices (corporal punishment -mother report and father and mother involvement-child report)

with intervention group having higher scores (see Table 28). Because of these baseline differences, covariance analyses were conducted to evaluate intervention effects.

Table 27

Baseline comparison between control and intervention group on demographic variables (N=113)

Demographic Variables	Control Group	Intervention Group	t / χ^2	p
	% /Mean(SD)	% /Mean(SD)		
Child's age	9.31(.467)	9.45(.487)	1.56	.120
Father's age	38.62(2.26)	38.19 (1.87)	1.09	.277
Mother's age	35.05(1.47)	35.23 (1.84)	.58	.562
Father's Education				
High School (10 years) or less	10(16.4 %)	8(15.4%)		
Higher Secondary School (12 years)	16(26.2 %)	16(30.8 %)		
Undergraduate (14 years)	19(31.1%)	19(36.5%)	1.48	.688
Postgraduate (16 years or more)	16(26.2%)	9(17.3%)		
Mother's Education				
High School (10 years) or less	11(18.0 %)	14(26.9%)		
Higher Secondary School (12 years)	27(44.3%)	15(28.8%)		
Undergraduate (14 years)	17(27.9%)	13(25.0%)	4.63	.201
Postgraduate (16 years or more)	6(9.8%)	10(19.2%)		
Familial Structure				
Nuclear	31(55.4%)	25(44.6%)	.084	.771
Extended	30 (52.2%)	27(47.4%)		
Mother's work status				
Working	19 (31.1%)	20(38.5%)	.664	.415
Not working	42(68.9%)	32(61.5%)		
Family Monthly Income				
20,000-30,000	13(21.3%)	9(17.3%)		
30,000-40,000	27(44.3%)	22(42.3%)	.955	.812
40,000-50,000	15(24.6%)	13(25.0%)		
More than 50,000	6(9.8%)	8(15.4%)		

Table 28

*Baseline comparison between control and intervention group on outcome variables
(N=113)*

Variables	Intervention Group (n = 52)		Control Group (n = 61)		t(111)	p	95% CI		Cohen's d
	M	SD	M	SD			LL	UL	
	Self-regulation								
Aggressive Behavior									
Proactive Aggression-TR	10.90	1.86	11.34	1.99	1.208	.230	-1.16	.282	
Reactive Aggression-TR	11.71	1.50	11.25	1.51	1.637	.104	-.098	1.03	
Proactive Aggression-MR	8.15	1.02	8.31	.696	0.973	.333	-.479	.166	
Reactive Aggression-MR	9.50	1.13	9.67	1.08	0.829	.409	-.584	.239	
Internal Behavioral Processes									
Fear	17.27	1.71	17.87	1.96	1.788	.076	-.175	3.41	
Activity level	16.87	4.86	15.25	4.74	1.714	.089	1.29	.093	
Social Competence									
Social Behavior									
Social Preference	-2.08	.763	-2.28	1.04	1.161	.248	-.145	.546	
Social Competence	20.37	2.22	20.39	2.38	-.064	.949	-.892	.836	
Social Support	8.23	1.26	8.07	1.21	.709	.480	-.296	.627	
Social Cognition									
Encoding Relevant Cue	11.65	1.24	11.70	1.31	.212	.832	-.528	.426	
Hostile Attribution Biases	11.69	1.68	11.87	1.73	.549	.584	-.814	.460	
Responses Generation	30.06	1.49	29.93	1.53	.433	.666	-.441	.687	
Generation of Aggressive Response	15.54	3.69	15.11	4.29	.558	.578	-1.08	1.93	
Generation of Competent Response	5.87	3.53	7.23	4.01	1.903	.060	-2.78	.056	
Outcome Expectation (RAT)	6.65	1.39	6.82	1.26	.667	.506	-.659	.327	
Outcome Expectation	7.40	1.16	7.03	1.11	1.735	.085	-.053	.795	

(ATR)

School Bonding

School Bonding	46.81	4.04	48.51	4.51	2.095	.038	-3.31	-.09	0.40
Perceived Academic Competence	10.67	2.03	10.39	1.41	.862	.391	-.363	.923	
Parenting Practices									
Mother-report									
Parental Involvement	31.02	2.14	30.25	2.75	1.648	.102	-.157	1.70	
Positive Parenting	17.85	1.16	17.79	1.45	.237	.813	-.436	.555	
Poor Monitoring	21.71	1.70	22.11	1.70	1.260	.210	-1.04	.231	
Inconsistent Discipline	16.35	4.54	16.61	4.43	.308	.759	-1.94	1.42	
Corporal Punishment	8.79	.92	8.30	1.16	2.480	.015	.099	.888	0.47
Child-report									
Parental Involvement(M)	30.87	1.76	30.08	2.24	2.060	.042	.030	1.54	0.39
Parental Involvement (F)	28.69	1.64	27.93	2.14	2.087	.039	.038	1.48	0.40
Positive Parenting	16.85	1.53	16.72	1.57	.426	.671	-.455	.705	
Poor Monitoring	26.23	2.95	26.08	2.94	.268	.789	-.952	1.25	
Inconsistent Discipline	16.48	1.42	16.46	1.18	.089	.929	-.463	.506	
Corporal Punishment	11.10	1.09	10.79	1.02	1.558	.122	-.084	.703	

Note. TR= Teacher Rating; M= Mother Rating; Outcome Expectation (RAT)= Outcome Expectation (Reducing Aversive Treatment); Outcome Expectation (ATR)= Outcome Expectation (Attaining Tangible Rewards); Parental Involvement (M)=Parental Involvement (Mother); Parental Involvement (F)=Parental Involvement (Father).

Part II: Intervention Effects

Intervention effects were calculated on four domains of outcome variables.

These four sets of variables included: (1) “self-regulation domain” (consists of two subgroup variables; aggressive-behavior and internal behavioral processes), (2)

“social competence domain” (consists of two subgroup variables; social behavior and social cognition), (3) “school bonding domain”, and (4) “parenting practice domain”.

The General Linear Model (GLM) with analysis of covariance (ANCOVA) was used to see the treatment effects by controlling the baseline scores. ANCOVA provides a way of statically controlling the linear effect of variables (Vogt, 1999). Table no. 29, 31, 33, and 35 shows the results, when baseline measures were included in the model as covariate. To analyze the effectiveness of CPP, an ANCOVA was performed by entering the post-treatment outcome measures as the dependent variable; baseline score as the covariate and group (intervention and control group) as the fixed factor in the model. The between-subject independent variable was an intervention status (experimental, control), and the within-subject independent variable was time (pre-treatment, post-treatment). For effect size index, “Cohen’s d” consisted of the mean difference (numerator) between two groups divided by the pooled standard deviation (denominator) at post-test (Cohen, 1992).

For further verification, General Linear Model (GLM) with repeated measures analysis was applied to get interaction effects and to explore within group trends. A series of repeated measures ANOVAs were done on the intervention group and control group separately to see the pre post treatment effects. For effect size index, “Cohen’s d” was calculated separately for control and intervention groups’ pre and post treatment effects and “partial eta” was used for interaction effect (*Time x Group*).

Self-regulation Domain. This domain consists of “aggressive behavior” and “internal behavioral processes”. The analysis of covariance (ANCOVA) for the aggressive behavior variables, revealed more reductions in teacher and parent rated

proactive and reactive aggression in CPP boys than the control group. Repeated measures ANOVA produced a significant *Time x Group* interaction effect for teacher and parent-rated aggressive behavior. The Intervention group had reduction in aggression over time. The control group had a significant increase in their reactive aggression scores over time. With regard to the internal behavioral processes, although non-significant differences were found between two groups on post-test assessment and but CPP boys had significantly lesser scores in activity level and fear over time. The Control group had non-significant reduction in their impulsivity (in terms of fearlessness and activity levels). These results were in the expected direction (results are presented in Table 29 and 30).

Table 29

Analysis of covariance (ANCOVA) for self-regulation measures at pre-treatment and post-treatment (N=112)

Measures	Intervention Group (n = 51)				Control Group (n = 61)				F	p	Cohen's d
	Pre Treatment		Post Treatment		Pre Treatment		Post Treatment				
	M	SD	M	SD	M	SD	M	SD			
Aggressive Behavior											
Proactive Aggression-TR	10.84	1.83	10.00	1.11	11.34	1.99	11.54	1.25	103.055	.000	1.30
Reactive Aggression-TR	11.76	1.46	10.04	1.04	11.25	1.51	11.85	1.15	207.953	.000	1.65
Proactive Aggression-MR	8.14	1.02	7.84	1.07	8.31	0.70	8.44	0.89	8.047	.005	0.61
Reactive Aggression-MR	9.49	1.14	8.16	1.10	9.67	1.08	9.90	1.22	92.349	.000	1.50
Internal Behavioral Processes											
Fear	17.29	1.72	16.78	1.47	17.87	1.96	17.75	1.58	1.043	.309	
Activity level	16.92	4.89	15.33	4.02	15.25	4.74	15.07	4.29	7.693	.007	0.08

Note: TR=teacher rating; MP=mother rating; "Cohen's d" was calculated on post treatment scores only for significant results.

Table 30

Repeated measures analysis of variance for control and experimental group for pre-treatment and post-treatment self-regulation measures

Measures	Groups	n	Pre Treatment		Post Treatment		F	Time		Time x Group		
			M	SD	M	SD		p	Cohen's d	F	p	η^2
Aggressive Behavior												
Proactive Aggression-TR	Intervention group	51	10.84	1.83	10.00	1.11	33.112	.000	0.56	24.225	.000	.180
	Control group	61	11.34	1.99	11.54	1.25	1.735	.193				
Reactive Aggression-TR	Intervention group	51	11.76	1.46	10.04	1.04	236.09	.000	1.36	155.71	.000	.586
	Control group	61	11.25	1.51	11.85	1.15	18.061	.000	0.45			
Proactive Aggression-MR	Intervention group	51	8.14	1.02	7.84	1.07	4.735	.034	0.29	7.724	.006	.066
	Control group	61	8.31	0.70	8.44	0.89	2.523	.117				
Reactive Aggression-MR	Intervention group	51	9.49	1.14	8.16	1.10	121.42	.000	1.19	86.656	.000	.441
	Control group	61	9.67	1.08	9.90	1.22	3.952	.050	0.20			
Internal Behavioral Processes												
Fear	Intervention group	51	17.29	1.72	16.78	1.47	5.581	.022	0.32	2.421	.123	.022
	Control group	61	17.87	1.96	17.75	1.58	.661	.435				
Activity level	Intervention group	51	16.92	4.89	15.33	4.02	64.097	.000	0.36	43.457	.000	.283
	Control group	61	15.25	4.74	15.07	4.29	3.050	.086				

Note: TR= teacher rating, MR=mother rating, Control group=df (1, 60) and intervention group=df (1, 50)

Social Competence Domain. This domain consists of social cognition and behavior. ANCOVA for the social behavior revealed significant intervention effect with positive increases in social competence and social behavior in CPP boys. The repeated measures ANOVA also produced a significant *Time x Group* effect, $F(1, 110) = 20.615, p < .001$. The repeated measures ANOVAs for intervention and control group revealed that the intervention group had significant improvement in social support and peer group acceptance and control group had a significant reduction in social competence, $F(1, 60) = 6.958, p = .011$.

On social cognitive variables, ANCOVAs revealed great improvement in CPP boys' social cognitive processes. Repeated measures ANOVA generated a significant *Time x Group* effect for social cognition processes. The intervention group was more accurate in encoding of social events, generated more alternative solutions, with higher number of competent solutions than aggressive solutions to social or interpersonal problems over time. The intervention group had less hostile attribution biases, and fewer expectations that aggressive behavior would reward them or would work to stop the aversive treatment from others. The Control group had a significant increase in generation of aggressive responses to social problems and non-significant results over time for other variables in social cognition domain (see Table 31 and 32).

Table 31

Analysis of Covariance (ANCOVA) for social competence measures at pre-treatment and post-treatment (N=112)

Measures	Intervention Group (n = 51)				Control Group (n = 61)				F	p	Cohen's d
	Pre Treatment		Post Treatment		Pre Treatment		Post Treatment				
	M	SD	M	SD	M	SD	M	SD			
Social Behavior											
Social Competence	20.51	1.98	21.18	1.49	20.39	2.38	19.95	2.21	28.652	.000	0.65
Social Support	8.20	1.33	9.59	0.98	7.98	1.23	8.30	0.94	88.904	.000	1.34
Social Cognition											
Encoding Relevant Cue	11.61	1.17	12.73	1.19	11.72	1.32	11.97	1.18	12.823	.001	0.64
Hostile Attribution Biases	11.69	1.69	10.55	1.10	11.87	1.73	11.85	1.56	58.250	.000	0.96
Responses Generation	22.06	1.59	23.02	1.38	21.97	1.82	21.98	1.51	22.887	.000	0.72
Generation of Aggressive Response	10.98	1.81	9.92	1.21	10.70	2.10	11.05	1.47	22.310	.000	0.84
Generation of Competent Response	7.18	1.91	10.88	1.44	7.84	2.27	8.02	2.16	123.671	.000	1.56
Outcome Expectation (RAT)	6.47	1.36	7.51	1.12	6.79	1.25	6.92	1.09	31.398	.000	0.53
Outcome Expectation (ATR)	6.63	1.39	7.69	1.19	6.75	1.27	6.67	1.09	25.966	.000	0.89

Note: Outcome Expectation (RAT)= Outcome Expectation (Reducing Aversive Treatment); Outcome Expectation (ATR)= Outcome Expectation (Attaining Tangible Rewards); "Cohen's d" was calculated on post treatment scores only for significant results.

Table 32

Repeated measures analysis of variance (Within subject effects) for control and experimental group for pre-treatment and post-treatment social competence measures (N=112)

Measures	Groups	n	Pre Treatment		Post Treatment		Time			Time x Group		
			M	SD	M	SD	F	p	Cohen's d	F	p	ηp^2
Social Competence												
Social Competence	Intervention group	51	20.51	1.98	21.18	1.49	14.286	.000	0.38	20.615	.000	.158
	Control group	61	20.39	2.38	19.95	2.21	6.958	.011	0.19			
Social Support	Intervention group	51	8.20	1.33	9.59	0.98	129.52	.000	1.19	42.869	.000	.280
	Control group	61	7.98	1.23	8.30	0.94	7.876	.007	0.29			
Social Cognition												
Encoding Relevant Cue	Intervention group	51	11.61	1.17	12.73	1.19	33.426	.000	0.95	9.340	.003	.078
	Control group	61	11.72	1.32	11.97	1.18	1.444	.000	0.20			
Hostile Attribution Biases	Intervention group	51	11.69	1.69	10.55	1.10	44.544	.000	0.80	35.868	.000	.246

	Control group	61	11.87	1.73	11.85	1.56	.030	.863				
Responses Generation	Intervention group	51	22.06	1.59	23.02	1.38	33.665	.000	0.64	13.171	.000	.107
	Control group	61	21.97	1.82	21.98	1.51	0.007	.933				
Generation of Aggressive Response	Intervention group	51	10.98	1.82	9.92	1.21	8.856	.004	0.69	15.722	.000	.125
	Control group	61	10.70	2.10	11.05	1.47	7.257	.009	0.19			
Generation of Competent Response	Intervention group	51	7.18	1.91	10.88	1.44	125.71	.000	2.19	113.16	.000	.507
	Control group	61	7.84	2.27	8.02	2.16	2.087	.154				
Outcome Expectation (RAT)	Intervention group	51	6.47	1.36	7.51	1.12	44.474	.000	0.83	27.128	.000	.198
	Control group	61	6.79	1.25	6.92	1.09	2.034	.159				
Outcome Expectation (ATR)	Intervention group	51	6.63	1.39	7.69	1.19	42.588	.000	0.82	16.203	.000	.128
	Control group	61	6.75	1.27	6.67	1.09	0.188	.666				

Control group= df (1,60) and intervention group = df (1,50)

Note: Outcome Expectation (RAT)= Outcome Expectation (Reducing Aversive Treatment); Outcome Expectation (ATR)= Outcome Expectation (Attaining Tangible Rewards).

School Bond Domain. The ANOCVA for the school bonding domain yielded significant intervention effects for attitude towards teachers and school. Subsequent repeated measures ANOVAs displayed significant interaction effect of *Time x Group* for school bonding and perceived academic competence. The intervention group had increased levels of bonding with school and perceived more academic competencies over time than the control group. The control group had significant reduction, $F(1,60) = 11.940, p = .001$, in school bonding over time (pre-treatment: M=48.51, SD=4.51, & post-treatment: M=47.93, SD=3.82) (see Table 33 and 34).

Table 33

Analysis of Covariance (ANCOVA) for school bonding measures at pre-treatment and post-treatment (N=112)

Measures	Intervention Group (n = 51)				Control Group (n = 61)				F	p	Cohen's d
	Pre Treatment		Post Treatment		Pre Treatment		Post Treatment				
	M	SD	M	SD	M	SD	M	SD			
School Bonding	46.90	4.02	48.06	4.69	48.51	4.51	47.93	3.82	7.410	.008	0.03
Perceived Academic Competence	10.71	2.03	11.57	1.66	10.39	1.41	10.54	1.35	31.877	.000	0.68

Note: "Cohen's d" was calculated on post treatment scores only for significant results.

Table 34

Repeated measures analysis of variance (Within subject effects) for control and experimental group for pre-treatment and post-treatment measures (N=112)

Measures	Groups	n	Pre Treatment		Post Treatment		Time			Time x Group		
			M	SD	M	SD	F	p	Cohen's d	F	p	η^2
School Bonding	Intervention group	51	46.90	4.02	48.06	4.69	5.181	.027	0.27	12.047	.001	.099
	Control group	61	48.51	4.51	47.93	3.82	11.940	.001	0.14			
Perceived Academic Competence	Intervention group	51	10.71	2.03	11.57	1.66	29.639	.000	0.46	20.112	.000	.155
	Control group	61	10.39	1.41	10.54	1.35	5.827	.019	0.11			

Control group=df(1,60) and intervention group=df(1,50)

Parenting Practices Domain: Significant differences were found between two groups on corporal punishment (mother-rating), and mother and father's involvement (child-rating) for baseline evaluation. Series of ANCOVAs demonstrated non-significant intervention effects for the parental involvement, positive parenting, and poor monitoring. Mothers of CPP boys reported significantly lower levels of corporal punishment and inconsistent discipline practices in post-test assessment. Intervention children also reported a significant reduction in corporal punishment. The repeated measures ANOVA produced significant *Time x Group* interaction effect for corporal punishment only. The repeated measures ANOVAs for intervention and control group revealed a significant reduction of corporal punishment in intervention group and a significantly increased level of punishment in the control group over time (see Table 35 and 36).

Table 35

Analysis of Covariance (ANCOVA) for parenting practices measure at pre-treatment and post-treatment (N=112)

Measures	Intervention Group (n = 51)				Control Group (n = 61)				F	p	Cohen's d
	Pre Treatment		Post Treatment		Pre Treatment		Post Treatment				
	M	SD	M	SD	M	SD	M	SD			
Mother-report											
Parental Involvement	31.06	2.14	31.80	1.67	30.25	2.75	31.11	2.03	2.008	.159	
Positive Parenting	17.86	1.17	18.16	1.52	17.79	1.45	18.07	1.55	0.022	.882	
Poor Monitoring	21.71	1.71	21.47	1.54	22.11	1.69	21.89	1.94	0.129	.721	
Inconsistent Discipline	16.25	4.53	15.53	3.20	16.61	4.43	16.79	2.88	6.095	.015	0.41
Corporal Punishment	8.76	0.91	8.12	1.07	8.30	1.16	9.11	0.95	31.292	.000	0.98
Child-report											
Parental Involvement (Mother)	30.90	1.71	31.55	1.43	30.08	2.24	30.79	1.84	0.805	.372	
Parental Involvement (Father)	28.73	1.64	27.88	3.08	27.93	2.14	27.18	3.08	0.020	.887	
Positive Parenting	16.84	1.54	17.53	1.52	16.72	1.57	17.20	1.90	0.199	.656	
Poor Monitoring	26.25	2.97	25.92	2.36	26.08	2.94	26.31	2.71	0.640	.425	
Inconsistent Discipline	16.47	1.43	16.65	1.67	16.46	1.18	16.51	1.56	0.054	.817	
Corporal Punishment	10.92	1.18	9.88	0.91	10.56	1.06	10.79	1.08	73.356	.000	0.91

Note: "Cohen's d" was calculated on post treatment scores only for significant results.

Table 36

Repeated measures analysis of variance for control and experimental group for pre-treatment and post-treatment measures

Measures	Groups	n	Pre Treatment		Post Treatment		Time			Time x Group		
			M	SD	M	SD	F	p	Cohen's d	F	p	η^2
Mother-report												
Parental Involvement	Intervention group	51	31.06	2.14	31.80	1.67	9.586	.003	0.91	.081	.776	.001
	Control group	61	30.25	2.75	31.11	2.03	6.441	.014				
Positive Parenting	Intervention group	51	17.86	1.17	18.16	1.52	3.313	.075		.005	.944	.000
	Control group	61	17.79	1.45	18.07	1.55	3.542	.065				
Poor Monitoring	Intervention group	51	21.71	1.71	21.47	1.54	0.616	.436		.001	.989	.000
	Control group	61	22.11	1.69	21.89	1.94	0.682	.412				
Inconsistent Discipline	Intervention group	51	16.25	4.53	15.53	3.20	2.440	.125		1.826	.179	.016
	Control group	61	16.61	4.43	16.79	2.88	0.145	.705				
Corporal Punishment	Intervention group	51	8.76	0.91	8.12	1.07	14.497	.000	0.64	34.12	.000	.237
	Control group	61	8.30	1.16	9.11	0.95	20.661	.000	0.76			
Child-report												
Parental Involvement (Mother)	Intervention group	51	30.90	1.71	31.55	1.43	15.329	.000	0.41	.034	.855	.000
	Control group	61	30.08	2.24	30.79	1.84	7.749	.007	0.35			

Parental Involvement (Father)	Intervention group	51	28.73	1.64	27.88	3.08	6.796	.012	0.34	.032	.858	.000
	Control group	61	27.93	2.14	27.18	3.08	4.324	.042	0.28			
Positive Parenting	Intervention group	51	16.84	1.54	17.53	1.52	11.44	.001	0.45	.468	.495	.004
	Control group	61	16.72	1.57	17.20	1.90	4.466	.039	0.28			
Poor Monitoring	Intervention group	51	26.25	2.97	25.92	2.36	1.068	.306		1.526	.219	.014
	Control group	61	26.08	2.94	26.31	2.71	0.543	.472				
Inconsistent Discipline	Intervention group	51	16.47	1.43	16.65	1.67	0.524	.472		.157	.693	.001
	Control group	61	16.46	1.18	16.51	1.56	0.054	.818				
Corporal Punishment	Intervention group	51	10.92	1.18	9.88	0.91	65.692	.000	0.98	67.64	.000	.381
	Control group	61	10.56	1.06	10.79	1.08	6.262	.015	0.21			

Control group = df (1, 60) and intervention group = df (1, 50)

End of Year Evaluation. Teachers reported behavioral, cognitive, and social skill improvement in the targeted children after the termination of the intervention program.

Table 37

Mean, SD, and t-value of children's behavioral, problem solving, and social skill improvement at the end of the intervention program (N=112)

Variables	Intervention Group (n = 51)		Control Group (n = 61)		t(110)	p	95% CI		Cohen's d
	M	SD	M	SD			LL	UL	
	Behavioral Improvement	3.49	.93	2.20			.81	7.87	
Problem Solving Improvement	3.61	.70	1.97	.77	11.69	.000	1.363	1.919	2.23
Social Skills Improvement	30.22	5.14	21.59	2.94	11.12	.000	7.089	10.16	2.12

The above table shows that the intervention group displayed significant improvement in social, cognitive, and behavioral domains. CP boys had better anger management skills, behavioral improvements, problem solving strategies, and social skills at the end of the intervention. These results are in the desired direction and show the effectiveness of CPP for Pakistani children.

DISCUSSION

Coping Power Program (CPP) is an indicated intervention program for highly aggressive elementary school children. The study was planned to assess the treatment effects of Coping Power intervention program in reducing behavioral problems (aggression), social and cognitive problems in Pakistani school children. CPP has already proved its efficacy and effectiveness for different settings (i.e., for indicated children in group, individual focused treatment, whole class (preventive nature), and clinical setting (Boxmeyer et al., 2007; Lochman et al., 2007; 2015; Lochman & Wells, 2002a; Muratori et al., 2015) and culture (Cabiya et al., 2008; Dyer, 2010; O'Donnell, Jurecska, & Dyer, 2012). The abbreviated version Coping Power Program (child component only) independently made significant effects in the outcome domains. Significant effects on Pakistani children, demonstrated the diversity and efficacy of the CPP as culturally sensitive and universal evidence based program.

The objectives of the study were to see the impact of the CPP on Pakistani children's social behavior, social and academic competencies, and parental practices. It was hypothesized that boys receiving Coping Power intervention would display a reduction in aggressive behavior, increase in social and cognitive competencies with competent problem solving strategies, and better bonding with school and teachers. We did not administer "Coping Power Program-parent component" on CP boys' parents. So keeping in view the previous studies (Lochman & Wells, 2002a; 2002b; Muratori et al., 2015), it was also hypothesized that CP intervention would not influence the parenting styles.

Analysis of Covariance (ANCOVA) suggested a significant decline in self-regulation domain. The intervention group significantly exhibit low levels of aggression and dysregulated emotional distress at the post-intervention assessment. They had significant declines in teacher and mother rated aggressive behavior over time. This reduction was not only limited to the proactive aggression, (Lochman & Wells, 2002a; 2002b) but also demonstrated significant reduction in reactive aggression. Teachers also reported significant improvement in CP boys' behavior at the termination of the intervention. Intervention group exhibited significantly low levels of impulsivity and fearlessness over time (Table 30). These findings are similar to the other CPP studies that indicated the significant effects of CPP on aggressive behavior (Lochman, Burch, Curry, & Lampron, 1984; Lochman et al., 2014; Lochman & Lampron, 1988; Lochman & Wells 2003).

The Coping Power Program also added a positive change in children's social competence. Teachers indicated that CPP improved the social skills of the CP group; they expressed their emotions and handled their conflicts in a positive way, became friendly and cooperative with their peers. These improvements proposed that Pakistani children not only understood the CPP content, but also showed skills to generalize their CP group training to classroom and home setting.

The CP boys also had improvements in their social cognitive patterns. They showed less attributional biases, more accurate in detecting relevant cues, generating competent solutions to a problem instead of aggressive one, and had less positive expectations that aggressive behavior generated desired outcome (Table 33). The statistically substantial findings on outcome measures suggest the efficacy of culturally adapted version of Coping Power Program for Pakistani children.

Bonding with school and teachers was also significantly increased in CP boys, but academic competence did not significantly differentiate between the two groups. CP boys and control group showed a significant increase in academic competence over time (Lochman & Wells, 2002b).

Opposing to our hypothesis, the corporal punishment was significantly decreased and parental involvement was significantly increased in the CPP group at post-intervention assessment. These findings are not consistent with the previous studies (Lochman & Wells, 2002a; 2002b; Lochman et al., 2015). Without CP parent component, this kind of change in parenting practices might be due to that the mothers of intervention group knew the inclusion of their children in Coping Power Program, so they may be biased in reporting the change. Corporal punishment is associated with elevated level of aggression and disruptive behavior in children (Larzelere, 2000). In Pakistani culture, corporal punishment is considered an effective method to teach child discipline, socialization, and immediate compliance. Therefore, the more positive behavior a child will show, more love and affection he will get from the parents. Another possible reason can be the minimized levels of aggressive behavior and more social skills in CP children, that would have made them to experience the less corporal punishment. It is now widely recognized that parents and children influence each other in a reciprocal fashion (Bell & Harper, 1977), rather in a unidirectional way.

Culturally adapted version of Coping Power program established its effectiveness for Pakistani children. However, the experimental group demonstrates improvement over time, but at the same time control group became worse on outcome measures (for example, reactive aggression, social competence, social cognitive

processing, school bonding, corporal punishment, and inconsistent discipline parenting practices). The CPP intervention produced positive results for all domains of the study and showed desired inclination in the CP group.

“Cohen’s d ” was calculated to see the effect sizes (Cohen, 1992). For between group comparisons, the effect sizes of intervention were large for reactive aggression, generation of competent response, social support, social cognitive processing, and corporal punishment, but small for other measures including school bonding, impulsivity. Cohen’s d ranged from 0.03 to 1.65. Lochman and colleagues (2014) reported a moderate range of effect size for an abbreviated version of Coping Power Program. A meta-analysis of school based intervention found indicated and universal intervention programs most effective for positive intervention effects on aggressive and disruptive behavior (Wilson & Lipsey, 2007).

GENERAL DISCUSSION

The present research is designed to address the scarcity of empirical evidence in the effectiveness of prevention-intervention research for behavioral problems in Pakistani children. Aggression was the primary focus in the present study. We planned this study because an enormous literature is available to establish the links between childhood aggression and later antisocial problems. Saleem and Mahmood (2013) conducted a prevalence study of emotional and behavioral problems in school children and identified 45% school children as severely aggressive. Mushtaq (2007) conducted a study to assess the social information processing styles of Pakistani school children, and identified 46.1% boys as aggressive. In the current study, 41.6% fourth grade boys were identified as aggressive. Cognitive behavioral interventions have been considered effective for aggressive and disruptive problems in school children (Lochman, Dunn, & Wagner, 1997; Lochman et al., 1997). The present research also provided an empirical evidence for the usefulness of culturally adapted Coping Power Program (child focused) for Pakistani school children.

To achieve the main objectives of the present research, three studies were designed.

Study I: Cultural Adaptation of Coping Power Program. In study I, the abbreviated version of Coping Power Program (CPP-child focused) was adapted and

translated in Urdu language. The cultural adaptation process was done on the guidelines given by Barrera and Castro (2006). The adaptation process was completed in five stages by following the three important dimensions for adaptation, i.e., “cognitive information processing”, “affective motivational”, and “environmental” characteristics (Castro, Barrera, & Martinez, 2004).

The theoretical model of the CPP was found appropriate for Pakistani aggressive children. Language, religion and community readiness were considered as possible cultural mismatches. So the main focus of adaptation was related to the language and religion components. Core components of the CPP were not altered (Card, Solomon, & Cunningham, 2011). Children struggled with the concepts of identification and recognition of expressions and feelings, on the recommendations of the experts, one extra session was included in the adapted version.

Pilot testing of ten sessions of adapted version of CPP and outcome measures, validated the quality of translation, suitability, and the clarity of the items (Osuna et al., 2011). Alpha coefficient values were ranging from 0.65 - 0.93 for outcome measures. Participants, teachers, and parents showed satisfaction with the CP intervention. Teachers and parents reported improvements in behavior, problem solving, and anger control strategies of the CP boys (Lochman & Wells, 2002a).

Study II: Initial Screening and Comparison of Aggression Severity Group Children on Contextual Social Cognitive Variables. After cultural adaptation of CPP, contextual social cognitive factors were explored in Study-II. The main objective of the study was to explore self-regulation, social and cognitive processes, school bonding and parental practices in aggressive severity groups. For the initial

screening, 859 boys were recruited with parental consent. The qualified participants of the study II were 401 boys (180 nonaggressive, 100 moderately aggressive, and 121 severely aggressive). Teacher ratings were used to identify the nonaggressive, moderately aggressive, and severely aggressive children.

Peer nominations were also obtained to identify the different social status of the children in peer group. Peer rejection is linked with the escalated level of aggression in boys (Coie & Dodge, 1997) and peer rejection and aggression together predict antisocial outcomes, including delinquency and substance abuse (Lochman & Wayland, 1994). Bierman et al. (1993) compared the aggressive boys (rejected), nonaggressive (rejected), and neither aggressive nor rejected groups to understand the relationship between aggression and social status. Aggressive rejected boys exhibited severe conduct problems, greater impulsivity, and low behavioral control. In this study, peer nominations revealed 26.4% children were socially rejected by peers in the overall sample (n=859) of the study and only 2.9% nonaggressive children were in the rejected status. Severely aggressive children were not classified as “neglected”. Social status of the child was used as a second independent variable in the study.

Self-regulation: The two types of aggression, i.e., “proactive aggression” and “reactive aggression”, possessed differential correlates (Dodge & Coie, 1987).

Reactive aggression in children has been found to correlate with elevated levels of peer rejection (Polin & Boivin, 1999; 2000b), disciplinary problems (Waschbusch, Willoughby, & Pelham, 1998), and social withdrawal (Polin & Boivin, 2002a), whereas proactively aggressive children were considered as a leader (Dodge & Coie, 1987). Comparison between aggression severity groups indicated that moderately

aggressive and severely aggressive children were more proactively and reactively aggressive than nonaggressive children. Severely aggressive children got more social rejection from peers.

Emotions are part of social information processing. Aggressive children display defensive emotions e.g., sadness, fear (Lochman & Dodge, 1994). As children become more angry they become more dysregulated and impulsive (Mattys & Lochman, 2010). Nonaggressive children were less impulsive and experiencing more fear emotion as compared to other comparable groups. Moderately aggressive and severely aggressive children with rejected and controversial status had higher levels of impulsivity and interestingly moderately aggressive children with controversial status had high levels of fear.

Social Competence: Social competence is associated with empathy, altruism, cooperation, and sharing that typically result in acceptance (LaFontana & Cillessen, 2002). In this study, social competence was assessed through social preference, social competence, and social support. There were significant mean differences for aggression severity groups. Nonaggressive children had high scores on this domain. The stability of impulsive conduct disorder was influenced by the child's social competence based on teacher and peer ratings (Mattys & Lochman, 2010). Social status of the children also linked significantly to social competence. Popular status boys (moderately aggressive, severely aggressive, and nonaggressive) scored high on social preferences, and social competence.

The social information processing (SIP) model has produced enormous amount of empirical literature that documents the links between social-cognitive

processes and deficit skills of children with behavior problems specifically disruptive and aggressive propensities (Crick & Dodge, 1994; Dodge et al., 1986). We found significant differences between moderately aggressive, severely aggressive, and nonaggressive children on all steps of social information processing. Severely aggressive children were found less attentive to relevant cues, had hostile attributional biases, and evaluate aggressive response in more acceptable and positive manner.

Aggressive boys demonstrated not only aggressive or violent behavior, but also hostile ways of information processing. They are incapable to process information in an appropriate and competent way (Dodge, Laird, Lochman, & Zelli, 2002; Dodge et al., 1985). There could be so many reasons about the high levels of aggression in Pakistani boys and their faulty cognitive processing. The growing incidence of violence in Pakistan and viewing them on TV can lead a child to emulate the aggressor. The display of dead bodies, burning schools, availability of video films featuring brutalities, can lead to violence-breeds-violence cycle. Child's understandings about violence (e.g., cognitive processes, SIP, and beliefs about the acceptability of aggression) mediate strongly between violence exposure and child's aggressive behavior (Crick & Dodge 1994; Dodge, Pettit, Bates, & Valente, 1995). According to SIP model, there is a possibility that those children copy that aggressive acts and find them the best mode of conflict resolution (Guerra & Slaby, 1989).

The aggressive children perceived differently in social settings and their social status affects their social behavior and SIP patterns. Within the social status and the aggression severity context, this study is unique and different from the previous SIP studies (Crick & Dodge, 1994; Dodge, 1986; Horsley, de Castro, & van de Schoot, 2010; Zelli et al., 1999). This study did not limit its execution to popular and rejected

status children only, but explored all possible five-status children with or without aggressive behavior. Interestingly, our results show that aggression is a unique factor between the social status of children and their SIP patterns. Results indicated that rejected boys with moderate and severe aggression, exhibited more social cognitive deficiencies as compared to popular, and controversial aggressive boys and nonaggressive boys (popular, rejected, neglected and average) (for review, Richard & Dodge, 1982). Results revealed that popular and rejected nonaggressive children did not differ on most of the SIP steps except few variations in processing (i.e., response generation, positive evaluation of competent outcome).

The result of the present study found more similarities than differences in social behavior and information processing patterns between Pakistan and United States, although the two countries have different cultural beliefs, and values as well as environmental factors. Despite important contextual differences, children's information processing was linked to their social behavior. It is also evident in developmental studies in Western countries, that indicating a basic and universal role of SIP in children's functioning across cultures.

Thus, the future studies should examine the unique influences of culture on social-cognitive processes in order to clarify the specific and universal characteristics of children's behaviors and relationships.

School Bonding: School bonding can be conceptualized as a commitment to do well in school and an attachment to school (Hawkins, Smith, & Catalano, 2004). Schools may vary in the degree to which they offer the conditions that promote school bonding. It has been an established notion that school bonding link to low levels of

aggression and violence. Results of the present study revealed that severely aggressive children had weak school bonding as compared to moderately aggressive and nonaggressive children. Non-significant differences were found on academic competence for moderately aggressive and severely aggressive boys. Popular nonaggressive and moderately aggressive children displayed stronger bonding and higher academic competence as compared to other groups.

Parenting Practices: Positive parenting practices are linked with children's prosocial behavior and better emotional regulation. The literature on parenting and aggression largely reveals that high levels of behavioral control with positive parenting are related to the low levels of early adolescent aggression, and high levels of parental psychological control with inconsistent discipline practices are related to the high levels of child aggression (Orpinas, Murray, & Kelder, 1999).

Positive parenting and parental involvement were higher for nonaggressive children with low levels of corporal punishment, inconsistent discipline, and poor monitoring. The findings are consistent with the literature; positive parenting is negatively related to child behavior problems (Smith et al., 2000). Moderately aggressive and severely aggressive children experienced more inconsistent discipline, poor monitoring and corporal punishment from their parents (Patterson et al., 1990).

Study III: Effectiveness of Coping Power Program. The main objective of this study was to see the effects of an adapted version of CPP in reducing aggression, and a positive change in other related contextual social-cognitive factors in Pakistani children. It was noted that the inclusion of religious and cultural aspects (using

religiously defined coping strategies to manage anger, inclusion of family customs, sports and the use of Urdu language to enhance understanding of the content) reduced potential concerns. O'Donnell and colleagues (2012) investigated the effectiveness of the CPP delivered to at risk Mexican-American adolescents. They culturally adapted CPP as "Poder Resolver". Cultural sensitivity was expressed by minor adaptations (modifying treatment content, providing culturally relevant examples, and use of the Spanish language). No significant differences were found between the two treatment groups (non-adapted EBT European-American and adapted EBT Mexican-American) on improvement rates and retention rates. Therefore, it was hypothesized that boys receiving Coping Power intervention would display a decrease in aggressive behavior, increase in social and cognitive competencies with competent problem solving strategies, and better bonding with school and teachers. Mytton and colleagues (2006) conclude in a meta-analysis study on school based intervention and prevention programs for aggression, that improvements in social competence and decrease in aggressive behavior was attained when the main focus of the program was on providing an opportunity to the children to learn new social skills by modifying the faulty social cognitive processes (Mytton, DiGuseppi, Gough, Taylor, & Logan, 2006).

Analysis of Covariance (ANCOVA) suggested a significant decline in self-regulation domain. Intervention group significantly exhibit low levels of aggression and had significant drops in teacher and mother rated aggressive behavior over time. Intervention group exhibited significantly lower levels of impulsivity and fearlessness over time. The Coping Power Program also amended the children's social competence. The CP boys also had improvements in their social cognitive patterns.

They had less attributional biases, more accurate in detecting relevant cues, exhibit alternating thinking strategies to solve a problem, generating competent solutions, had less positive expectations that aggressive behavior generated desired outcome. Bonding with school and teachers was also significantly increased in CP boys. These effects are consistent with prior investigations with US sample (Lochman et al., 2014; Lochman & Wells, 2002a; 2002b) and with other culturally adapted Coping Power efficacy studies (Muratori et al., 2015; O'Donnell et al., 2012). The corporal punishment was significantly decreased and parental involvement was significantly increased in the CPP group at post-intervention assessment. The statistically substantial findings on outcome measures suggest the usefulness of Coping Power Program for Pakistani children and have implications for the use of CPP in other Asian cultures and Islamic countries.

Conclusions

To conclude, the findings of the present research support the link between aggression, social cognitive processes, school problems, peer relations, and parenting behavior. This research appears to be the first step in filling the gap in the existing literature by exploring the unique nature of aggression severity and social status of the children in peer groups. This research also adds the Pakistani context in evidence based treatments with cognitive behavioral approach.

Childhood aggression influence a child's social, cognitive, and behavioral functioning. The present research supports the contextual social cognitive model that serves as the conceptual framework for "Coping Power Program". Coping Power

Program established its effectiveness for Pakistani children too. The full trial of the culturally adapted intervention program to determine the effectiveness suggests that the CPP model is acceptable and feasible for implementation with aggressive children in Pakistani schools. CPP produce positive change in intervention boys with improvements in behavior, social and cognitive competence, problem solving and social skills and anger control.

Limitations and Future Directions

The present research has several prominent strengths, including cultural adaptation and implementation of an intervention program by following a heuristic model, standardized data collection techniques with trained staff, assessment of aggression severity with different social status, and a randomized control trial (RCT) design with treatment dissemination with the help of trained intervention staff in the effectiveness study of CPP. Another strength is the selection of Coping Power program for reducing aggression in Pakistani children. Dishion and Dodge (2005) highlighted the iatrogenic effects of deviant peer contagion such as reinforcing each other's aggressive behavior by laughing, sharing stories about their own antisocial behaviors, or hang out in free time, etc. Highly structured and strict group setting in CPP do not allow such activities. The caution should be kept in mind for designing future intervention studies with highly deviant and aggressive youth.

On the other hand, there are some limitations of the study. *First*, we use self-reports, teacher and parent reports and verbal responses of the children, that may have several potential biases, and may be the actual situation based cognitive skills are different from the reported one. The current design and limited resources did not allow us to get observer ratings. Future researchers should use some observational and experimental designs to determine Pakistani children's processing styles and aggression and parenting behavior and intervention results.

Second, the inclusion of boys only in the study did not represent the gender-based differences. *Third*, one-time assessment was taken so there is a need to explore longitudinal and habitual social and cognitive patterns. *Fourth*, we did not get follow

up assessments to see the long-term effects of CPP. Future research should incorporate longitudinal design and gender differences to test the efficacy of CPP for Pakistani children. *Fifth*, we explored the parenting practices and it has strong effects on the child's behavior. Therefore, future research should test the effectiveness of Coping Power Program with parent component too.

The strong evidence exists in literature, for child (temperament, emotional and behavioral problems, IQ, physical abuse), parent (maternal depression, marital distress, negative life events, low SES, parental aggression), peer and neighborhood characteristics. These factors should be carefully addressed, when future research will design for such intervention programs. Future researchers should also do some exploratory analyses to develop the possible link of these variables in child development in Pakistani context.

The present research has wide implications. We designed the research to test the effectiveness of CPP for at risk aggressive children only. Now CPP is also developing its efficacy as a school-based prevention, so future research should explore the preventive nature of CPP through implementing the program on whole class with both child and parent components. The present work will be helpful for educationists, policy makers, parents, teachers, counselors, clinical therapists, and for school authorities to identify behavior problems and its varied effects on children. This research has implications in different areas of psychology too, i.e., educational psychology, developmental psychopathology, clinical psychology, social and cognitive psychology, child development, and intervention and prevention science.

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APPENDICES

Appendix A

STUDY-I

محترم والدین

اسلام علیکم!

میں قومی ادارہ نفسیات قائد اعظم یونیورسٹی اسلام آباد میں Ph.D کی طالبہ ہوں۔ میری ریسرچ کا موضوع "بچوں کے اندر جارحیت (aggression) اور اُس میں کمی لانے کے لیے مختلف طریقے" ہے اپنی اس ریسرچ میں میں آپ کا تعاون چاہتی ہوں۔ میری ریسرچ کے پہلے حصہ میں آپ کے بچوں میں جارحیت اور اپنی کلاس کے بچوں کے ساتھ رویہ کی جانچ کی جائے گی۔ اگر آپ اپنے بچے کی اس تحقیقی کام میں شرکت کے لیے راضی ہیں تو اطمینان رکھیے۔

- 1- آپ سے متعلق تمام معلومات پوشیدہ رکھی جائیں گی۔
- 2- حاصل کردہ تمام مواد صرف ریسرچ کے کام کے لیے استعمال ہوگا

اگر آپ اپنے بچوں کی اس ریسرچ میں شرکت کے لیے راضی ہیں تو براہ مہربانی اس فارم پر اپنے دستخط کر دیں۔

شکریہ۔

دستخط والد

دستخط والدہ

STUDY-II

محترم والدین

اسلام علیکم!

ہم آپ کے تعاون کے شکرگزار ہیں اب ہماری ریسرچ دوسرے مرحلہ میں داخل ہوگئی ہے۔ اس مرحلے میں ہم آپ کے بچوں، آپ سے اور ان کے اساتذہ سے کچھ سوالنامہ پُر کروائیں گے۔ جس سے بچوں میں جارحیت کے اسباب اور عوامل کی نشاندہی ہو سکے گی۔ اگر آپ اس تحقیقی کام کے اس دوسرے مرحلے میں شرکت کے لئے راضی ہیں تو اطمینان رکھیں۔

1- آپ اور آپ کے بچے سے متعلق تمام معلومات پوشیدہ رکھی جائیں گی۔

2- تمام مواد صرف ریسرچ کے لیے استعمال ہوگا۔

3- مزید معلومات آپ کو بعد میں مہیا کی جائیں گی۔

4- اگر آپ ملاقات کر کے اپنا اطمینان کرنا چاہیں تو میں آپ سے مل کر آپ کو مزید تفصیل سے آگاہ کر سکتی ہوں۔

5- صرف والدہ تحقیقی مواد کو پُر کریں گی۔

اگر آپ اس تحقیقی کام میں شرکت کے لیے راضی ہیں تو براہ مہربانی اس فارم پر دستخط کر دیں اور اس سے منسلک فارم پر معلومات فراہم کیجئے۔

شکریہ

دستخط والدہ

دستخط والدہ

Demographic Informatin Sheet

بچے کا نام: _____

بچے کی عمر: _____ جماعت: _____

والدین کی ازدواجی حیثیت: _____ شادی شدہ _____ طلاق یافتہ _____ بیوہ _____

والد کی عمر: _____ والدہ کی عمر: _____

والد کی تعلیمی قابلیت: _____ والد کا پیشہ: _____

والدہ کی تعلیمی قابلیت: _____ والدہ کا پیشہ: _____

والد کی ماہانہ آمدنی: _____ والدہ کی ماہانہ آمدنی: _____

خاندان کی ماہانہ آمدنی: _____

بچوں کی تعداد: _____ بچوں میں اس بچے کا نمبر: _____

خاندانی نظام: _____ مخلوط (combine) _____ علیحدہ (separate) _____

والدروالده کوئی نفسیاتی مسئلہ _____ ہاں _____ نہیں _____

پتہ _____

فون نمبر _____

STUDY-III (Experimental Group)

محترم والدین!

اسلام علیکم!

ہم آپ کے بے حد شکر گزار ہیں کہ آپ نے ہم سے بھرپور تعاون کیا۔ اب ہماری ریسرچ آخری مرحلے میں داخل ہوگی ہے ابتدائی مراحل میں ہم نے آپ کے بچے کے اندجارجیت اور اس کے اسباب کو جانچا ہے۔ اب اس آخری مرحلے میں ہم ایک ایسا پروگرام استعمال کریں گے جس سے بچوں میں جارحیت (aggression) کم ہو جاتی ہے اور ان کے اندر مثبت تبدیلیاں رہنا ہوتی ہیں۔ یہ ایک سال کا پروگرام ہے۔ آپ کا بچہ اس پروگرام کے لیے منتخب ہوا۔ آپ کو ہر دو بارہ یقین دہانی کرواتے ہیں کہ۔

1- آپ اور آپ کے بچے سے متعلق تمام معلومات پوشیدہ رکھی جائیں گی۔

2- تمام مواد صرف ریسرچ کے لیے استعمال ہوگا۔

3- مزید معلومات آپ کو بعد میں مہیا کی جائیں گی۔

4- صرف والدہ تحقیقی مواد کو پُر کریں گی۔

اگر آپ اس تحقیقی کام میں تعاون کے لیے تیار ہیں یا آپ کے ذہن میں کوئی سوال ہے تو میں آپ سے ملاقات کر کے آپ کو مزید معلومات فراہم کروں گی۔

اگر آپ راضی ہیں تو اس فارم پر دستخط کر دیں۔

شکریہ

دستخط والدہ۔

STUDY-III (Control Group)

محترم والدین!

اسلام علیکم!

ہم آپ کے بے حد شکر گزار ہیں کہ آپ نے ہم سے بھرپور تعاون کیا۔ اب ہماری ریسرچ آخری مرحلے میں داخل ہوگی ہے ابتدائی مراحل میں ہم نے آپ کے بچے کے اندجارجیت اور اس کے اسباب کو جانچا ہے۔ اب اس آخری مرحلے میں ہم ایک ایسا پروگرام استعمال کریں گے جس سے بچوں میں جارحیت (aggression) کم ہو جاتی ہے اور ان کے اندر مثبت تبدیلیاں رہنما ہوتی ہیں۔ یہ ایک سال کا پروگرام ہے۔ آپ کا بچہ اس پروگرام کے لیے منتخب نہیں ہوا۔ جو بچہ منتخب نہیں ہوا۔ اس کو (control group) ایسے گروپ میں شامل کیا گیا ہے جو سال کے شروع اور آخر میں صرف تحقیقی سوالنامے کے جوابات پر کریں گے۔ اور اسے waitlist group میں شامل کیا گیا ہے۔

آپ کو ہم دوبارہ یقین دہانی کرواتے ہیں کہ۔

1- آپ اور آپ کے بچے سے متعلق تمام معلومات پوشیدہ رکھی جائیں گی۔

2- تمام مواد صرف ریسرچ کے لیے استعمال ہوگا۔

3- مزید معلومات آپ کو بعد میں مہیا کی جائیں گی۔

4- صرف والدہ تحقیقی مواد کو پُر کریں گی۔

اگر آپ اس تحقیقی کام میں تعاون کے لیے تیار ہیں یا آپ کے ذہن میں کوئی سوال ہے تو میں آپ سے ملاقات کر کے آپ کو مزید معلومات فراہم کروں گی۔

اگر آپ راضی ہیں تو اس فارم پر دستخط کر دیں۔

شکریہ

دستخط والدہ۔-----

Appendix B

COPING POWER PROGRAM: CHILD COMPONENT

Each Coping Power child session follows the same general format, and there are common activities across all sessions. After *session 1*, each session begins with a review of the main points from the previous session and of the children's progress toward a behavioral goal, which is individually selected for each child with input from the teacher. Reviewing the goal sheets during group gives the children an opportunity to discuss any problems they may have had with accomplishing their goals and the leaders can help them brainstorm solutions. At the *end of each session*, leaders assign any homework and each child identifies one positive thing about himself or herself and one positive thing about another group member. Afterwards, the children must answer a question pertaining to self-control before being able to select from the prize box. If time permits, the children have free time, which provides an opportunity to practice problem-solving strategies, if any conflicts arise.

Session to session details is as following:

Session 1. The goal of this session is to establish the structure of the group through explaining the purpose of the group and setting rules for the group. The children engage in a group activity to enable them to become acquainted with one another. During this session, the co-leaders also explain the point system, prizes, and the idea of behavioral goal setting to the children.

Session 2. During this session, the leaders revisit the idea of goal setting and illustrate the difference between long-term and short-term goals. Each child identifies a long-term goal and

related short-term goals to work on while the program is in effect. The short-term goals will serve as the children's weekly goals. Leaders work with the children to define their goal in clear behavioral terms to minimize the level of subjectivity.

Session 3. This session focuses on teaching the children to become aware of feelings of anger and arousal. This is accomplished through using a thermometer to assist the children in understanding THE varying levels of anger. The children also identify their personal triggers for angry feelings.

Note: An extra session was included the modified culturally adapted version of Coping Power Program for Pakistani children to grasp the emotions and feeling labeling components.

Session 4-6. During these sessions, the leaders introduce the children to methods for anger coping and self-control. Specifically, the leaders discuss coping with the feelings experienced as a result of being teased. The children are taught to use distraction and coping self-statements to deal with their anger. These sessions include a variety of activities to allow the children to practice the coping strategies.

Session 7-8. During these sessions, the leaders teach the children breathing exercises as a method of self-control and have the children list some ways that they can calm themselves down. The children also discuss the obstacles to using coping statements and ways to overcome them. The leaders discuss perspective taking and the difficulty of deciphering others' intentions by observing their behavior.

Session 9-12. These sessions include discussions and activities centered on applying a problem-solving model, the Problem Identification, Choices, and Consequences (PICC) model, to effectively handle problematic social encounters. Children also learn that solutions generated when one thinks before responding are better than those generated automatically. Problem-solving etiquette, which includes appropriate times to approach others to solve problems, is also discussed.

Session 13-15. In these sessions, children create a video using the PICC model, which serves to reinforce the social problem-solving process. The children create a script with alternate solutions to the problem and the consequences of those solutions. If the children agree, the leaders have the option of showing this video during the parent groups.

Session 16-21. These sessions focus on applying social problem-solving to teacher conflict, making friends and group entry, negotiation with peers, and neighborhood problems. In addition, leaders define peer pressure and conduct role-plays to demonstrate refusal skills. They also address children's involvement with deviant peer groups. The children create a poster to encourage them to resist peer pressure and join positive peer groups.

Session 22. During this session, the children list their strengths and positive qualities and the leaders illustrate how this will assist in joining positive peer groups.

Session 23. During this session, the leaders review the Coping Power information with the children and reemphasize the idea of the children being positive influences on other children.

Leaders also inform the children that they may be contacted for booster sessions the following year.

Session 24. This is the termination session and the end of the year party.

Appendix C

Teacher Checklist of Social Behavior-Aggression Scale

برائے مہربانی نشاندہی کریں کہ نیچے دیئے گئے بیانات اس بچے کے لیے کس حد تک درست ہیں جو جواب بچے کے لیے مناسب سمجھیں اس کے سامنے کے دائرہ پر نشان لگا دیں۔

نمبر شمار	بیانات	کبھی نہیں درست	بہت کم درست	کبھی کبھار درست	اکثر درست	زیادہ تر درست
1	یہ بچہ اپنے ساتھ بچوں کے ساتھ لڑنا شروع کر دیتا ہے۔	1	2	3	4	5
2	یہ بچہ آسانی سے غصہ میں آجاتا ہے اور جب اسے دھمکا یا چھیڑا جائے تو پلٹ کر مارتا ہے۔	1	2	3	4	5
3	یہ بچہ اپنے ساتھی بچوں سے بُری باتیں کرتا ہے۔ مثلاً چھیڑنا یا گالیاں دینا۔	1	2	3	4	5
4	یہ بچہ ہمیشہ دعویٰ کرتا ہے کہ لڑائی دوسرے بچے نے شروع کی تھی اور اس میں اس کا کوئی قصور نہیں۔	1	2	3	4	5
5	یہ بچہ دوسرے بچوں پر قابو پانے کے لئے جسمانی طاقت استعمال کرتا ہے یا ایسا کرنے کی دھمکیاں دیتا رہتا ہے۔	1	2	3	4	5
6	جب کوئی ساتھی اس بچے کو اتفاقاً چوٹ پہنچاتا ہے، جیسے کہ لگنا یا گرا جانا، تو یہ بچہ فرض کر لیتا ہے کہ ایسا اس کے ساتھی نے جان بوجھ کر کیا ہے، اور پھر غصے میں بے قابو ہو کر لڑائی شروع کر دیتا ہے۔	1	2	3	4	5
7	یہ بچہ اپنا کام نکالنے کے لیے دوسروں کو دھمکاتا ہے یا خوف زدہ کرتا ہے۔	1	2	3	4	5
8	یہ بچہ اپنے دوستوں کو کسی دوسرے بچے کے خلاف، جس کو یہ پسند نہیں کرتا، جمع کر کے محاذ بنا لیتا ہے۔	1	2	3	4	5

Teacher Report of Reactive and Proactive Behaviors

برائے مہربانی نشاندہی کریں کہ نیچے دیئے گئے بیانات اس بچے کے لیے کس حد تک درست ہیں جو جواب بچے کے لیے مناسب سمجھیں اس کے سامنے کے دائرہ پر نشان لگادیں۔

نمبر شمار	بیانات	کبھی بھی درست نہیں	بہت کم درست	کبھی کبھار درست	عام طور پر درست	تقریباً ہمیشہ درست
1.	یہ بچہ آسانی سے غصہ میں آجاتا ہے اور جب اسے دھمکایا جائے تو پلٹ کر مارتا ہے					
2.	یہ بچہ ہمیشہ دعویٰ کرتا ہے کہ لڑائی دوسرے بچے نے شروع کی تھی اور اس میں اس کا کوئی قصور نہیں۔					
3.	جب کوئی ساتھی اس بچے کو اتفاقاً چوٹ پہنچاتا ہے، جیسے کہ ٹکرا جانا یا گر جانا، تو یہ بچہ فرض کر لیتا ہے کہ ایسا اس کے ساتھی نے جان بوجھ کر کیا ہے، اور پھر غصے میں بے قابو ہو کر لڑائی شروع کر دیتا ہے۔					
4.	یہ بچہ اپنے دوستوں کو کسی دوسرے بچے کے خلاف، جس کو یہ پسند نہیں کرتا، جمع کر کے مجاذبنا لیتا ہے۔					
5.	یہ بچہ دوسرے بچوں پر قابو پانے کے لئے جسمانی طاقت استعمال کرتا ہے یا ایسا کرنے کی دھمکیاں دیتا رہتا ہے۔					
6.	یہ بچہ اپنا کام نکالنے کیلئے دوسروں کو دھمکاتا ہے یا خوف زدہ کرتا ہے۔					

Social Competence -Social Support

مندرجہ ذیل بیانات کو پڑھ کر فیصلہ کریں کہ جو آپ اپنے لیے محسوس کرتے ہیں یہ جملے ان کیفیات کو بیان کر رہے ہیں۔ "ہاں" پر نشان لگائیں اگر یہ جملے آپ کی ترجمانی کرتے ہیں۔ اور "نہیں" پر نشان لگائیں اگر ایسا نہیں ہے یا درکھیں! کوئی غلط یا صحیح جواب نہیں ہے۔ ہم صرف یہ جاننا چاہتے ہیں کہ آپ اپنے بارے میں کیا محسوس کرتے ہیں۔

نمبر شمار	بیانات	ہاں	نہیں
1	میرے ساتھ بات کرنا بہت آسان ہے۔		
2	میرے ہم جماعت میرا مذاق اڑاتے ہیں۔		
3	میرے لیے دوست بنانا مشکل ہے۔		
4	میں شرمیلا ہوں۔		
5	میں مشہور نہیں ہوں۔		
6	میں چیزوں سے الگ تھلگ محسوس کرتا ہوں۔		
7	مجھے کھیلوں کے لیے سب سے آخر میں چنا جاتا ہے۔		
8	میرے بہت سے دوست ہیں۔		
9	لوگ میرا انتخاب کرتے ہیں۔		
10	گیم اور کھیل میں میں کھیلنے کے بجائے دیکھتا ہوں۔		
11	میں لڑکیوں میں مشہور ہوں۔		
12	میں لڑکوں میں مشہور ہوں۔		
13	میں دوسرے لوگوں سے مختلف ہوں۔		

یہ جملے اُن چیزوں کو بیان کرتے ہیں جو بچے کبھی کبھار کرتے ہیں۔ برائے مہربانی ہر جملے کو نور سے پڑھیں اور فیصلہ کریں کہ یہ کس حد تک آپ جیسا ہے۔ اپنے جواب سے مطابقت رکھنے والے دائرے پر نشان لگائیں۔

نمبر شمار	بیانات	بہت زیادہ	کچھ حد تک	تھوڑا بہت	بالکل بھی نہیں
1	میری عمر کے دوسرے بچوں کے مقابلے میں میرے بہت زیادہ دوست ہیں۔				
2	میری جماعت کے بہت سے بچے مجھے پسند کرتے ہیں۔				
3	دوسرے بچے مجھے اکثر اپنے ساتھ کھیلنے کے لیے نہیں کہتے ہیں۔				
4	مجھے اپنے ساتھ کھیلنے کے لیے دوست ڈھونڈنے میں مشکل پیش آتی ہے۔				

SOCIAL PROBLEM SOLVING MEASURE

- بچے کا نام: عمر: کلاس:
1. فرض کریں کہ یہ آپ اور یہ علی ہے۔ علی آپ کا ہم عمر ہے۔ یعنی وہ _____ سال کا ہے اور کافی دیر سے جھولا جھول رہا ہے اور ایسا لگتا ہے جیسے وہ آپ کے ساتھ جھولا نہیں جھولنا چاہتا۔ جبکہ آپ واقعی جھولے پر کھیلنا چاہ رہے ہیں۔
آپ ایسا کیا کہہ یا کر سکتے ہیں کہ آپ جھولے پر کھیل سکیں۔
(اگر کوئی جواب نہ ملے _____ تو سوال دوبارہ دہرائیں)

PROMPT

1. کوئی اور ایسی چیز جو آپ کہہ یا کر سکیں تاکہ آپ جھولے پر کھیل سکیں۔
2. کیا آپ کسی اور ایسی چیز کے بارے میں سوچ سکتے ہیں جو آپ کہہ یا کر سکیں تاکہ آپ جھولے پر کھیل سکیں۔
2. فرض کریں کہ یہ آپ اور یہ حمزہ ہے۔ ہم یہ بھی فرض کرتے ہیں کہ آج سکول میں آپ کا پہلا دن ہے۔ آپ اور حمزہ ایک ہی جماعت میں پڑھتے ہیں اور آپ حمزہ کا دوست بننا پسند کریں گے۔ لیکن حمزہ آپ سے کچھ نہیں کہتا۔
آپ ایسا کیا کہہ یا کر سکتے ہیں کہ آپ حمزہ کے دوست بن جائیں؟
(اگر کوئی جواب نہ ملے _____ تو سوال دوبارہ دہرائیں)

PROMPT

1. اسکے علاوہ کوئی اور ایسی چیز جو آپ کہہ سکیں یا کر سکتے ہیں تاکہ حمزہ کے دوست بن جائیں۔
2. اسکے علاوہ آپ کچھ اور سوچ سکتے ہیں جو آپ کریں یا کہیں تاکہ آپ حمزہ کے دوست بن جائیں۔
3. فرض کیا یہ آپ اور یہ احمد ہے۔ آپ کو باہر جانے کیلئے قطار کے شروع میں اچھی جگہ ملی ہے اور احمد آپ کو قطار سے باہر دھکیل کر آپ کی جگہ لے لیتا ہے۔
آپ ایسا کیا کہہ یا کر سکتے ہیں کہ آپ قطار میں اپنی جگہ واپس لے سکیں۔
(اگر کوئی جواب نہ ملے _____ تو سوال دوبارہ دہرائیں)

PROMPT

1. کوئی اور ایسی چیز / بات جو آپ کہہ یا کر سکتے ہیں تاکہ آپ قطار میں اپنی جگہ واپس لے سکیں۔
2. اس کے علاوہ آپ اور کیا کریا کہہ سکتے ہیں تاکہ آپ قطار میں اپنی جگہ واپس لے سکیں۔
4. فرض کیا یہ آپ اور یہ بلال ہے۔ بلال اور کچھ دوسرے بچے بائیسکل پر ریس لگا رہے ہیں۔ آپ بلال اور دوسرے بچوں کے ساتھ کھلینا چاہ رہے

ہیں لیکن وہ آپ سے پوچھتے بھی نہیں ہیں۔

آپ بلال اور دوسرے بچوں کے ساتھ کھیلنے کیلئے کیا کہہ یا کر سکتے ہیں؟

(اگر کوئی جواب نہ ملے _____ تو سوال دوبارہ دہرائیں)

PROMPT

1. کوئی اور ایسی چیز بات جو آپ کہہ سکیں تاکہ آپ بلال اور دوسرے بچوں کے ساتھ کھیل سکیں۔

2. کیا آپ کسی اور ایسی چیز کے بارے میں سوچ سکتے ہیں جو آپ کہہ یا کر سکیں تاکہ آپ بلال اور دوسرے بچوں کے ساتھ کھیل سکیں۔

5. فرض کریں یہ آپ اور یہ عمر ہے آپ عمر کے ساتھ کھیل رہے ہیں اور آپ کو محسوس ہوتا ہے کہ عمر نے آپ کی باری لے لی ہے۔

آپ ایسا کیا کہہ یا کر سکتے ہو کہ عمر سے اپنی باری واپس لے سکو۔

(اگر کوئی جواب نہ ملے _____ تو سوال دوبارہ دہرائیں)

PROMPT

1. کوئی اور ایسی چیز جو آپ کہہ یا کر سکیں تاکہ آپ اپنی باری واپس لے سکیں۔

2. کیا آپ کسی اور ایسی چیز کے بارے میں سوچ سکتے ہیں تاکہ آپ اپنی باری واپس لے سکیں۔

6. فرض کیا یہ آپ اور یہ جاوید ہے۔ جاوید کچھ دوسرے بچے (tag) پکڑن پکڑائی کھیل رہے ہیں۔ آپ جاوید اور دوسرے بچوں کے ساتھ واقعی

کھیلنا چاہ رہے ہیں لیکن انھوں نے آپ سے نہیں پوچھا۔

آپ جاوید اور دوسرے بچوں کے ساتھ کھیلنے کیلئے کیا کہہ یا کر سکتے ہو؟

(اگر کوئی جواب نہ ملے _____ تو سوال دوبارہ دہرائیں)

PROMPT

1. کوئی اور ایسی چیز جو آپ کہہ یا کر سکیں تاکہ آپ جاوید اور دوسرے بچوں کے ساتھ کھیل سکیں۔

2. کیا آپ کسی اور ایسی چیز کے بارے میں سوچ سکتے ہیں تاکہ آپ جاوید اور دوسرے بچوں کے ساتھ کھیل سکیں۔

7. فرض کیا یہ آپ اور یہ عثمان ہے۔ آپ اور عثمان دونوں کھیل کے میدان میں ہو اور عثمان آپ کو گالیاں دیتا ہے (بڑے ناموں سے بلانا) اور آپ

کا مذاق اڑانا شروع کر دیتا ہے۔

آپ کیا کہہ یا کر سکتے ہو کہ عثمان آپ کو تنگ کرنا بند کر دے۔

(اگر کوئی جواب نہ ملے _____ تو سوال دوبارہ دہرائیں)

PROMPT

1. کوئی اور ایسی چیز جو آپ کہہ یا کر سکیں تاکہ عثمان آپ کو تنگ کرنا بند کر دے۔

2. کیا آپ کسی اور ایسی چیز کے بارے میں سوچ سکتے ہیں تاکہ عثمان آپ کو تنگ کرنا بند کر دے

8. فرض کیا یہ آپ اور یہ اسد ہے۔ اسد اور کچھ اور بچے فٹ بال (Kickball) کے لیے جگہ کا انتخاب کر رہے ہیں۔ آپ واقعی اسد اور دوسرے بچوں کیساتھ کھیلنا چاہتے ہیں۔ لیکن انہوں نے آپ سے نہیں پوچھا۔ (آپ سے کھیلنے کو نہیں کہتے) آپ فٹ بال (Kickball) کھیلنے کیلئے کیا کہہ یا کر سکتے ہو؟
(اگر کوئی جواب نہ ملے _____ تو سوال دوبارہ دہرائیں)

PROMPT

1. کوئی اور ایسی چیز جو آپ کہہ یا کر سکیں تاکہ آپ فٹ بال (Kickball) کھیل سکیں۔
2. کیا آپ کسی اور ایسی چیز کے بارے میں سوچ سکتے ہیں تاکہ آپ فٹ بال (Kickball) کھیل سکیں۔

HOME INTERVIEW WITH CHILD

بچے کا نام (ID): _____

1. فرض کریں کہ آپ ایک بچے سعد کے ساتھ کھیل کے میدان میں کھڑے کیچ کرنا کھیل رہے ہیں۔ آپ گیند سعد کی طرف پھینکتے ہیں اور وہ اُسے کیچ کر لیتا ہے۔ آپ مڑتے ہیں اور دوسرے ہی لمحے آپ کو پتہ چلتا ہے کہ سعد نے گیند پھینکی جو آپ کو کمر کے درمیان میں لگی۔ گیند آپ کو بہت زور سے لگتی ہے اور آپ کو بہت تکلیف ہوتی ہے۔

(a) آپ کا کیا خیال ہے کہ سعد نے آپ کو کمر پر کیوں مارا؟

1. حادثاتی طور پر 2. غصہ سے

(b) سعد کے مارنے کے بعد آپ اس کے ساتھ کیا کریں گے؟

0. پتہ نہیں 1. کچھ نہیں 2. سوال کرنا/دوبارہ پوچھنا 3. حکم دینا 4. سزا کے طور پر کسی بڑے کو بتانا 5. جوابی حملہ کرنا

2. فرض کریں کہ آپ کچھ بچوں کو کھیل کے میدان میں کھیلتے ہوئے دیکھتے ہیں۔ آپ واقعی اُن کے ساتھ کھیلنا چاہتے ہیں۔ اس لیے آپ وہاں جاتے ہیں اور ایک بچے عمران سے پوچھتے ہیں کہ کیا آپ ان کے ساتھ کھیل سکتے ہیں۔ عمران کہتا ہے نہیں۔

(a) آپ کا کیا خیال ہے کہ عمران نے انکار کیوں کیا؟

1. حادثاتی طور پر 2. غصہ سے

(b) عمران کے انکار کے بعد آپ اس کے ساتھ کیا کریں گے؟

0. پتہ نہیں 1. کچھ نہیں 2. سوال کرنا/دوبارہ پوچھنا 3. حکم دینا 4. سزا کے طور پر کسی بڑے کو بتانا 5. جوابی حملہ کرنا

3. فرض کریں آپ سکول جا رہے ہیں اور آپ نے نئے جوتے پہنے ہیں۔ آپ کو اپنے جوتے بہت پسند ہیں اور آپ نے آج پہلے دن ان کو پہنا ہے۔ اچانک ایک بچہ ابراہیم پیچھے سے آپ کے ساتھ ٹکراتا ہے آپ کیچڑ میں گرتے لڑکھڑاتے ہیں اور آپ کے جوتوں پر مٹی لگ جاتی ہے۔

(a) آپ کا کیا خیال ہے کہ ابراہیم نے آپ کو کیوں دھکا دیا؟

1. حادثاتی طور پر 2. غصہ سے

(b) ابراہیم کے دھکا دینے کے بعد آپ اس کے ساتھ کیا کریں گے؟

0. پتہ نہیں 1. کچھ نہیں 2. سوال کرنا/دوبارہ پوچھنا 3. حکم دینا 4. سزا کے طور پر کسی بڑے کو بتانا 5. جوابی حملہ کرنا

4. فرض کریں آپ سکول میں نئے طالب علم ہیں اور آپ واقعی نئے دوست بنانا چاہتے ہیں۔ لنچ ٹائم میں آپ کچھ بچوں کو دیکھتے ہیں آپ ان کے ساتھ بیٹھنا چاہتے ہیں اور آپ ان کی میز کی طرف جاتے ہیں۔ آپ پوچھتے ہیں کہ کیا آپ ان کے ساتھ بیٹھ سکتے ہیں اور ایک بچہ سلیم کہتا ہے نہیں۔

(a) آپ کا کیا خیال ہے کہ سلیم نے انکار کیوں کیا؟

1. حادثاتی طور پر 2. غصہ سے

(b) سلیم کے انکار کے بعد آپ اس کے ساتھ کیا کریں گے؟

0. پتہ نہیں 1. کچھ نہیں 2. سوال کرنا/دوبارہ پوچھنا 3. حکم دینا 4. سزا کے طور پر کسی بڑے کو بتانا 5. جوابی حملہ کرنا

5. فرض کریں آپ ایک کرکٹ کلب کی پہلی میٹنگ میں جاتے ہیں جس میں آپ شمولیت (join) اختیار کرنا چاہتے ہیں۔ آپ کلب کے دوسرے بچوں کے ساتھ دوستی کرنا چاہتے ہیں۔ آپ کچھ بچوں کے پاس جاتے ہیں اور انہیں سلام کرتے ہیں لیکن وہ آپ کو کوئی جواب نہیں دیتے۔

(a) آپ کا کیا خیال ہے دوسرے بچوں نے آپ کو جواب کیوں نہیں دیا؟

1. حادثاتی طور پر 2. غصہ سے

(b) دوسرے بچوں کے جواب نہ دینے کے بعد آپ ان کے ساتھ کیا کریں گے؟

0. پتہ نہیں 1. کچھ نہیں 2. سوال کرنا دوبارہ پوچھنا 3. حکم دینا 4. سزا کے طور پر کسی بڑے کو بتانا 5. جوابی حملہ کرنا

6. فرض کریں آپ اسکول کی گیلری میں چل رہے ہیں۔ آپ نے ہاتھ میں کتابیں پکڑی ہوئی ہیں اور دوست کے ساتھ باتیں کر رہے ہیں۔ اچانک ایک بچہ عبداللہ آپ کو پیچھے سے دھکا مارتا ہے۔ آپ لڑکھڑاتے ہیں اور گر جاتے ہیں اور آپ کی کتابیں فرش پر بکھر جاتی ہیں۔ وہاں موجود دوسرے بچے آپ پر ہنسنا شروع کر دیتے ہیں۔

(a) آپ کا کیا خیال ہے عبداللہ نے آپ کو کیوں دھکا دیا؟

1. حادثاتی طور پر 2. غصہ سے

(b) عبداللہ کے دھکا دینے کے بعد آپ اس کے ساتھ کیا کریں گے۔

0. پتہ نہیں 1. کچھ نہیں 2. سوال کرنا دوبارہ پوچھنا 3. حکم دینا 4. سزا کے طور پر کسی بڑے کو بتانا 5. جوابی حملہ کرنا

7. فرض کریں (ریس میں حصہ لینے کے لیے) ٹریڈ ٹیم میں آپ کا پہلا دن ہے۔ آپ دوسرے بچوں کو نہیں جانتے مگر آپ ان کے ساتھ دوستی کرنا چاہتے ہیں۔ پریکٹس کے دوران آپ ٹیم کے بچوں کے ایک گروپ کی طرف جاتے ہیں اور سلام (Hi) کرتے ہیں لیکن کوئی آپ کو جواب نہیں دیتا۔

(a) آپ کا کیا خیال ہے دوسرے بچوں نے آپ کو جواب کیوں نہیں دیا؟

1. حادثاتی طور پر 2. غصہ سے

(b) دوسرے بچوں کے جواب نہ دینے کے بعد آپ ان کے ساتھ کیا کریں گے؟

0. پتہ نہیں 1. کچھ نہیں 2. سوال کرنا/دوبارہ پوچھنا 3. حکم دینا 4. سزا کے طور پر کسی بڑے کو بتانا 5. جوابی حملہ کرنا

8. فرض کریں آپ اور آپکی کلاس چڑیا گھر سیر کیلئے جاتے ہیں۔ آپ کوک (Coke) خریدنے رک جاتے ہیں اچانک ایک بچہ خالد آپ کے بازو سے ٹکراتا ہے اور کوک (Coke) آپ کی قمیض پر گر ادیتا ہے۔ کوک (Coke) ٹھنڈی ہے اور آپ کی قمیض گیلی ہو جاتی ہے۔

(a) آپ کا کیا خیال ہے خالد نے آپ کو کیوں ٹکرا ماری؟

1. حادثاتی طور پر 2. غصہ سے

(b) خالد کے ٹکرا مارنے کے بعد آپ اس کے ساتھ کیا کریں گے؟

0. پتہ نہیں 1. کچھ نہیں 2. سوال کرنا/دوبارہ پوچھنا 3. حکم دینا 4. سزا کے طور پر کسی بڑے کو بتانا 5. جوابی حملہ کرنا

Out Come Expectation Questionnaire

ہدایات: میں کچھ حالات پڑھنے جا رہی ہوں جو بچوں کو کبھی کبھار پیش آتے ہیں جب وہ سکول میں ہوتے ہیں۔ میں چاہتی ہوں کہ آپ سوچیں کہ آگے کس طرح کی چیزیں رونما ہوں گی، خاص طور پر اگر آپ اُس حالت میں ہوں۔ مجھے بتائیں کہ کونسا حل سب سے زیادہ وقوع پذیر ہوگا۔ کیا آپ کے ذہن میں کچھ سوالات ہیں؟

جواب سے مطابقت رکھتے ہوئے دائرے کو جتنا ممکن ہو سکے مکمل پر کیجیے۔

- 1 احمد آپ کو سکول میں گالیاں دے کر تنگ کر رہا ہے۔ اُسے روکنے کے لیے آپ جواباً اسے گالیاں دیتے ہیں آپ کے خیال میں اب وہ کیا کرے گا۔
 - ☆ بہت حد تک وہ آپ کو تنگ کرنا بند کر دے گا۔
 - ☆ کسی حد تک وہ آپ کو تنگ کرنا بند دے گا۔
 - ☆ کسی حد تک وہ آپ کو تنگ کرنا جاری رکھے گا۔
 - ☆ بہت حد تک وہ آپ کو تنگ کرنا جاری رکھے گا۔
- 2 آپ اور آپ کی جماعت لائبریری میں ہیں علی اُسی کتاب کو دیکھنا چاہتا ہے جسے آپ دیکھنا چاہتے ہیں۔ آپ اُسے کہنی مارتے ہیں اور دھکا دیتے ہیں اور کتاب پکڑنے کے لیے بھاگتے ہیں۔ آپ کے خیال میں کیا آپ کو کتاب مل جائے گی؟
 - ☆ بہت حد تک آپ کو کتاب مل جائے گی۔
 - ☆ کسی حد تک آپ کو کتاب مل جائے گی۔
 - ☆ کسی حد تک آپ کو کتاب نہیں ملے گی۔
 - ☆ بہت حد تک آپ کو کتاب نہیں ملے گی۔
- 3 آپ لمبی لٹیج کی قطار کے سامنے کھڑے ہیں حمزہ آگے آتا ہے اور آپ کو برے طریقے سے کاٹنے کی کوشش کرتے ہیں۔ آپ چیختے ہیں اور اُسے برے القابات سے نوازتے ہیں۔ آپ کے خیال میں کیا آپ اپنی جگہ برقرار رکھ پائیں گے۔
 - ☆ کسی حد تک آپ اپنی جگہ برقرار رکھیں گے۔
 - ☆ بہت حد تک آپ اپنی جگہ برقرار رکھ سکیں گے۔
 - ☆ کسی حد تک آپ اپنی جگہ برقرار نہ رکھ سکیں گے۔
 - ☆ بہت حد تک آپ اپنی جگہ برقرار نہ رکھ سکیں گے۔

- ☆
- 4 عبد اللہ شورشور چارہا ہے۔ اپنی پنسل کو اپنے میز پر مارتا ہے تاکہ آپ سوچ نہ سکیں یا اپنا کام مکمل نہ کر سکیں۔ آپ اُس پر بہت زور سے چلاتے ہیں۔ آپ کے خیال میں کیا وہ شورشور چارہا بنا کر دے گا۔
- ☆ بہت حد تک وہ شورشور چارہا بنا کر دے گا۔
- ☆ کسی حد تک وہ شورشور چارہا بنا کر دے گا۔
- ☆ کسی حد تک وہ شورشور چارہا بنا نہیں کرے گا۔
- ☆ بہت حد تک وہ شورشور چارہا بنا نہیں کرے گا۔
- 5 سکول میں ایک دن اسد اُس تصویر کو لے لیتا ہے جس پر آپ کام کر رہے ہوتے ہیں۔ آپ غصہ سے پاگل ہو جاتے ہیں اور اُس پر چلاتے ہیں۔ آپ کے خیال میں کیا آپ کو اپنی تصویر واپس مل جائے گی۔
- ☆ بہت حد تک آپ کو اپنی تصویر واپس مل جائے گی۔
- ☆ کسی حد تک آپ کو اپنی تصویر واپس مل جائے گی۔
- ☆ کسی حد تک آپ کو اپنی تصویر واپس نہیں ملے گی۔
- ☆ بہت حد تک آپ کو اپنی تصویر واپس نہیں ملے گی۔
- 6 سکول میں کھیل کے دوران باہر آپ کو دھکا دیتا ہے تو آپ اُسے نیچے گرا دیتے ہیں۔ آپ کے خیال میں وہ کیا کرے گا۔
- ☆ بہت حد تک وہ دو بارہ آپ کو دھکا نہیں دے گا۔
- ☆ کسی حد تک وہ دو بارہ آپ کو دھکا نہیں دے گا۔
- ☆ کسی حد تک وہ آپ کو دو بارہ دھکا دے گا۔
- ☆ بہت حد تک وہ آپ کو دو بارہ دھکا دے گا۔
- 7 سلیم آپ کو بڑا کھلاڑی کہتا ہے اور آپ پر ہنستا ہے جب آپ اپنے دوستوں کے ساتھ کھیل رہے ہوتے ہیں۔ آپ اُس سے برا بھلا کہتے ہیں اور اُسے مارنے کی دھمکی دیتے ہیں۔ آپ کے خیال میں وہ کیا کرے گا۔
- ☆ بہت حد تک وہ دو بارہ آپ کو تنگ نہیں کرے گا۔
- ☆ کسی حد تک وہ دو بارہ آپ کو تنگ نہیں کرے گا۔
- ☆ کسی حد تک وہ دو بارہ آپ کو تنگ کرے گا۔
- ☆ بہت حد تک وہ آپ کو دو بارہ تنگ کرے گا۔

8 ایک دن آپ اور جنید اکٹھے جا رہے ہوتے ہیں آپ کو سڑک کے اطراف میں سو روپے کا نوٹ نظر آتا ہے آپ اور جنید دونوں اُسے پکڑنے کے لیے نیچے جھکتے ہیں لیکن وہ اُسے پہلے پکڑ لیتا ہے۔ آپ سوچتے ہیں کہ سو کا نوٹ آپ کا ہونا چاہیے۔ آپ اس پر پختہ چلاتے ہیں۔ آپ کے خیال میں کیا آپ کو نوٹ مل جائے گا۔

☆ بہت حد تک آپ کو نوٹ مل جائے گا۔

☆ کسی حد تک آپ کو نوٹ مل جائے گا۔

☆ کسی حد تک آپ کو نوٹ نہیں ملے گا۔

☆ بہت حد تک آپ کو نوٹ نہیں ملے گا۔

9 آپ کو بہت پیاس لگی ہے اور آپ کو پینے کے لیے پانی چاہیے حماد پانی کے فوارے کے سامنے آپ سے آگے کھڑا ہے آپ اُسے کہتی مارتے ہیں اور قطار میں اپنی جگہ آگے بناتے ہیں۔ آپ کے خیال میں کیا آپ کو پہلے پانی مل جائے گا۔

☆ بہت حد تک آپ کو پہلے پانی مل جائے گا۔

☆ کسی حد تک آپ کو پہلے پانی مل جائے گا۔

☆ کسی حد تک آپ کو پہلے پانی نہیں ملے گا۔

☆ بہت حد تک آپ کو پہلے پانی نہیں ملے گا۔

10 آپ فٹ بال کے کھیل میں گول کرتے ہیں جنید دوسری ٹیم میں ہے آپ کو غصہ سے بازو پر مارنا شروع کر دیتا ہے۔ آپ جتنا شدید سے مار سکتے تھے مارتے ہیں۔ آپ کے خیال میں اب وہ کیا کرے گا۔

☆ بہت حد تک وہ آپ کو دوبارہ نہیں مارے گا۔

☆ کسی حد تک وہ آپ کو دوبارہ نہیں مارے گا۔

☆ بہت حد تک وہ آپ کو دوبارہ مارے گا۔

☆ کسی حد تک وہ آپ کو دوبارہ مارے گا۔

11 علی آپ کو ٹھوکر مار کر گراتا ہے جب آپ بال کے ساتھ کھیل رہے ہوتے ہیں۔ آپ سیدھے ہوتے ہیں اور اُسے واپس ٹھوکر لگاتے ہیں۔ آپ کے خیال میں اب وہ کیا کرے گا۔

☆ بہت حد تک وہ آپ کو دوبارہ ٹھوکر نہیں مارے گا۔

☆ کسی حد تک وہ آپ کو دوبارہ ٹھوکر نہیں مارے گا۔

☆ کسی حد تک وہ آپ کو دوبارہ ٹھوکر مارنے کی کوشش کرے گا۔

☆ بہت حد تک وہ آپ کو دوبارہ ٹھوکر مارنے کی کوشش کرے گا۔

12 سکول میں آپ اور آپ کے دوست فٹ بال کھیلنا چاہتے ہیں صرف فرحان کے پاس فٹ بال ہے اور وہ بے رحمی سے یہ کہہ دیتا ہے کہ وہ آپ کے ساتھ نہیں کھیلنا چاہتا۔ آپ جاتے ہیں اور اُسے دھکا دے کر اُس سے بال چھین لیتے ہیں۔ آپ کے خیال میں کیا آپ کو گیند کھیلنے دی جائے گی؟

☆ بہت حد تک آپ کو کھیلنے کے لیے گیند دی جائے گی۔

☆ کسی حد تک آپ کو کھیلنے کے لیے گیند دی جائے گی۔

☆ کسی حد تک آپ کو کھیلنے کے لیے گیند نہیں دی جائے گی۔

☆ بہت حد تک آپ کو کھیلنے کے لیے گیند نہیں دی جائے گی۔

Alabama Parenting Questionnaire (ARQ)

(Parent Form)

ہدایات: درج ذیل بیانات آپ کے خاندان کے متعلق ہیں۔ برائے مہربانی جو باتیں آپ کے خاندان میں خاص طور پر پائی جاتی ہیں ان کی نشاندہی کیجیے۔

مکنہ جوابات ہیں (1) کبھی نہیں (2) بہت ہی کم (3) کبھی کبھار (4) اکثر اوقات (5) ہمیشہ

نمبر شمار	سوالات	کبھی نہیں	بہت ہی کم	کبھی کبھار	اکثر اوقات	ہمیشہ
1.	آپ اپنے بچے سے دوستانہ گفتگو کرتے ہیں۔					
2.	آپ اپنے بچے کو سراتے ہیں جب وہ کوئی اچھا کام کرتا ہے۔					
3.	آپ اپنے بچے کو سزا کی دھمکی دیتے ہیں مگر اصل میں اُسے سزا نہیں دیتے۔					
4.	آپ رضا کارانہ طور پر اپنے بچے کی خاص کاموں میں مدد کرتے ہیں مثلاً کھیل، سکاؤٹ اور مذہبی سرگرمیاں وغیرہ۔					
5.	آپ اپنے بچے کے اچھا برتاؤ کے بدلے میں اُسے انعام دیتے ہیں یا کچھ اور خاص کرتے ہیں۔					
6.	آپ کا بچہ آپ کے لئے کوئی نوٹ نہیں چھوڑتا یا آپ کو نہیں بتاتا کہ وہ کال جا رہا ہے۔					
7.	آپ اپنے بچے کے ساتھ گیمز کھیلتے ہیں یا کوئی اور تفریحی کام میں حصہ لیتے ہیں۔					
8.	آپ کا بچہ سزا ہو جانے کے ڈر کے باوجود آپ کو بتا دیتا ہے کہ اُس نے کچھ غلط کر دیا ہے۔					
9.	آپ اپنے بچے سے پوچھتے ہیں کہ اسکول میں اس کا دن کیسا گزرا۔					
10.	آپ کا بچہ شام کو دیر تک باہر رہتا ہے یعنی اس وقت تک جب اُسے گھر پر ہونا چاہیے۔					
11.	آپ اپنے بچے کی ہوم ورک کرنے میں مدد کرتے ہیں۔					
12.	آپ محسوس کرتے ہیں کہ اپنے بچے کو فرما کر بنا کر بہت مشکل کام ہے۔					
13.	آپ اپنے بچے کی تعریف کرتے ہیں جب وہ کوئی اچھا کام کرتا ہے۔					

نمبر شمار	سوالات	کبھی نہیں	بہت ہی کم	کبھی بکھار	اکثر اوقات	ہمیشہ
14.	آپ اپنے بچے سے اُس کے آئندہ آنے والے دن کے معاملات کے بارے میں پوچھتے ہیں۔					
15.	آپ اپنے بچے کو خاص سرگرمی (Special Activity) کے لیے لے کر جاتے ہیں۔					
16.	آپ اپنے بچے کے اچھوروئے پر اُس کی تعریف کرتے ہیں۔					
17.	آپ نہیں جانتے کہ آپ کا بچہ کن دوستوں کے ساتھ باہر جاتا ہے۔					
18.	آپ اپنے بچے کو گلے لگاتے یا پیار کرتے ہیں جب وہ کچھ اچھا کرتا ہے۔					
19.	آپ کو بچہ گھر سے باہر جاتے وقت واپسی کے وقت کا تعین نہیں کرتا۔					
20.	آپ اپنے بچے سے اُس کے دوستوں کے متعلق بات کرتے ہیں۔					
21.	آپ کا بچہ رات کے وقت کسی بڑے کو ہمراہ لئے بغیر باہر جاتا ہے۔					
22.	آپ اپنے بچے کو مقررہ وقت سے پہلے سزا سے چھوٹ دے دیتے ہیں (مثلاً اپنے مقرر کردہ وقت سے پہلے پابندیاں اٹھالیتے ہیں)۔					
23.	آپ کا بچہ فیملی کی سرگرمیاں Plan کرنے میں آپ کی مدد کرتا ہے۔					
24.	آپ اتنے مصروف ہو جاتے ہیں کہ یہ بھی بھول جاتے ہیں کہ آپ کا بچہ کہاں ہے اور کیا کر رہا ہے۔					
25.	آپ اپنے بچے کو سزا نہیں دیتے جب وہ کچھ غلط کر دیتا ہے۔					
26.	آپ اپنے بچے کے سکول کی میٹنگ (meeting) میں جاتے ہیں مثلاً Parent Teacher Meeting یا دوسری میٹنگز میں۔					
27.	آپ اپنے بچے سے اپنی پسندیدگی کا اظہار کرتے ہیں جب وہ گھر کے کاموں میں مدد کرتا ہے۔					
28.	آپ چیک (check) نہیں کرتے کہ آپ کا بچہ اُس وقت تک گھر آ جاتا ہے جس وقت تک اُسے آ جانا چاہیے۔					
29.	آپ اپنے بچے کو نہیں بتاتے کہ آپ کہاں جا رہے ہیں۔					
30.	امید کے برعکس آپ کا بچہ اسکول سے تقریباً ایک گھنٹہ دیر سے گھر آتا ہے۔					

نمبر شمار	سوالات	کبھی نہیں	بہت ہی کم	کبھی کبھار	اکثر اوقات	ہمیشہ
31.	آپ اپنے بچے کو اپنے موڈ کے مطابق سزا دیتے ہیں۔					
32.	آپ کا بچہ کسی بڑے کی سرپرستی کے بغیر گھر میں اکیلا ہوتا ہے۔					
33.	آپ اپنے بچے کی ہاتھ سے پٹائی کرتے ہیں جب وہ کچھ غلط کر دیتا ہے۔					
34.	بدتمیزی کرنے پر آپ اپنے بچے کو نظر انداز کر دیتے ہیں۔					
35.	آپ اپنے بچے کو تھپڑ مارتے ہیں جب وہ کچھ غلط کر دیتا ہے۔					
36.	سزا کے طور پر آپ اپنے بچے سے پیسے یا اور کوئی مراعات واپس لیتے ہیں۔					
37.	آپ سزا کے طور پر اپنے بچے کو کمرے میں بھیج دیتے ہیں۔					
38.	آپ بچے کو بیلٹ یا کسی اور چیز سے مارتے ہیں جب وہ کچھ غلط کر دیتا ہے۔					
39.	جب آپ کا بچہ کچھ غلط کر دیتا ہے تو آپ اُس پر چیختے اور چلاتے ہیں۔					
40.	جب آپ کا بچہ بدتمیزی کرتا ہے تو آپ اپنے بچے کو قتل سے سمجھاتے ہیں کہ جو رویہ اس کا تھا اس میں کیا غلطی ہے۔					
41.	آپ سزا کے طور پر اپنے بچے کو ایک کونے میں کھڑا ہونے یا بیٹھنے کو کہہ دیتے ہیں۔					
42.	سزا کے طور پر آپ اپنے بچے سے زیادہ کام کرواتے ہیں۔					

Alabama Parenting Questionnaire (APQ)

(Child Form)

نام: _____ عمر: _____ کلاس _____

ہدایات: درج ذیل بیانات آپکے خاندان کے متعلق ہیں۔ برائے مہربانی جو باتیں آپکے خاندان میں خاص طور پر پائی جاتی ہیں ان کی نشاندہی کیجیے۔ اگر آپکے والد یا والدہ آپکے ساتھ نہیں رہ رہے تو ان کے متعلق سوالات کو آپ حل نہ کریں۔ ممکنہ جوابات ہیں (1) کبھی نہیں (2) بہت ہی کم (3) کبھی کبھار (4) اکثر اوقات (5) ہمیشہ

نمبر شمار	سوالات	کبھی نہیں	بہت ہی کم	کبھی کبھار	اکثر اوقات	ہمیشہ
1.	آپ اپنی والدہ سے دوستانہ گفتگو کرتے ہیں۔					
	(a) کیا والد سے کبھی کرتے ہیں؟					
2.	جب آپ اچھا کام کرتے ہیں تو کیا آپکے والدین آپکو سراہتے ہیں۔					
3.	آپکے والدین آپکو سزا کی دھمکی دیتے ہیں مگر سزا نہیں دیتے۔					
4.	آپکی والدہ آپکے خاص کاموں میں مدد کرتی ہیں۔ مثلاً کھیل، اسکاؤٹ، مذہبی سرگرمیاں وغیرہ۔					
	(a) کیا والد آپکی مدد کرتے ہیں؟					
5.	آپکے والدین آپکے اچھے برتاؤ کے بدلے میں آپکو انعام دیتے ہیں یا کچھ اور خاص کرتے ہیں۔					
6.	آپ کوئی نوٹ نہیں چھوڑتے یا اپنے والدین کو یہ نہیں بتاتے کہ آپ کہاں جا رہے ہیں۔					
7.	آپ اپنی والدہ کے ساتھ گیمز کھیلتے ہیں یا کوئی اور تفریحی کام میں حصہ لیتے ہیں۔					
	(a) کیا اپنے والد کے ساتھ کرتے ہیں؟					

نمبر شمار	سوالات	کبھی نہیں	بہت ہی کم	کبھی کبھار	اکثر اوقات
8.	غلطی کرنے کے بعد آپ اپنے والدین کو سزا ہو جانے کے ڈر کے باوجود بتا دیتے ہیں۔				
9.	آپ کی والدہ آپ سے پوچھتی ہیں کہ اسکول میں آپ کا دن کیسا گزرا۔				
(a)	کیا آپ کے والد آپ سے پوچھتے ہیں؟				
10.	شام کو آپ دیر تک باہر رہتے ہیں یعنی اُس وقت تک جب آپ کو گھر میں ہونا چاہیے۔				
11.	آپ کی والدہ آپ کے ہوم ورک میں مدد کرتی ہیں۔				
(a)	کیا آپ کے والد آپ کی مدد کرتے ہیں؟				
12.	آپ کو فرما کر بنا کر بنانے کے معاملے کو لے کر آپ کے والدین ہار مان چکے ہیں کیونکہ یہ بہت مشکل کام ہے۔				
13.	جب آپ کوئی اچھا کام کرتے ہیں تو آپ کے والدین آپ کی تعریف کرتے ہیں۔				
14.	آپ کی والدہ آپ کے آئندہ آنے والے دن کے معاملات کے بارے میں آپ سے پوچھتی ہیں۔				
(a)	کیا آپ کے والد پوچھتے ہیں؟				
15.	آپ کی والدہ آپ کو خاص (special) سرگرمی کے لئے لے کر جاتی ہیں۔				
(a)	کیا آپ کے والد لے کر جاتے ہیں؟				
16.	آپ کے والدین آپ کے اچھے رویے پر آپ کی تعریف کرتے ہیں۔				
17.	آپ جن دوستوں کے ساتھ وقت گزارتے ہیں آپ کے والدین اُن سے واقف نہیں۔				
18.	جب آپ کچھ اچھا کرتے ہیں تو آپ کے والدین آپ کو گلے لگاتے یا پیار کرتے ہیں۔				
19.	آپ گھر سے باہر جاتے وقت واپسی کے وقت کا تعین نہیں کرتے۔				

نمبر شمار	سوالات	کبھی نہیں	بہت ہی کم	کبھی کبھار	اکثر اوقات
20.	آپ کی والدہ آپ سے آپ کے دوستوں کے متعلق بات کرتی ہیں۔				
	(a) کیا آپ کے والد کرتے ہیں؟				
21.	آپ رات کے وقت کسی بڑے کو ہمراہ لئے بغیر باہر جاتے ہیں۔				
22.	آپ کے والدین آپ کو مقررہ وقت سے پہلے سزا سے چھوٹ دے دیتے ہیں (یعنی اپنے مقرر کردہ وقت سے پہلے پابندیاں اٹھا لیتے ہیں)۔				
23.	آپ فیملی کی سرگرمیوں کو plan کرنے میں مدد دیتے ہیں۔				
24.	آپ کے والدین اتنا مصروف ہو جاتے ہیں کہ یہ بھی بھول جاتے ہیں کہ آپ کہاں ہیں اور کیا کر رہے ہیں۔				
25.	جب آپ کچھ غلط کر دیتے ہیں تو آپ کے والدین آپ کو سزا نہیں دیتے۔				
26.	آپ کی امی آپ کے سکول کی میٹنگ (meeting) میں جاتی ہیں مثلاً Parent Teacher Meeting وغیرہ۔				
	(a) کیا آپ کے والد جاتے ہیں؟				
27.	جب آپ گھر کے کاموں میں مدد کرتے ہیں تو آپ کے والدین اپنی پسند کا اظہار کرتے ہیں۔				
28.	آپ گھر سے دیر تک باہر رہتے ہیں جس کا علم آپ کے والدین کو نہیں ہوتا۔				
29.	آپ کے والدین گھر سے جاتے ہوئے آپ کو یہ بتا کر نہیں جاتے کہ وہ کہاں جا رہے ہیں۔				
30.	اپنے والدین کی امید کے برعکس آپ سکول سے تقریباً ایک گھنٹہ دیر سے گھر آتے ہیں۔				
31.	آپ کے والدین اپنے موڈ کے مطابق آپ کو سزا دیتے ہیں۔				
32.	آپ گھر پر اکیلے بغیر کسی بڑے کے ہوتے ہیں۔				

نمبر شمار	سوالات	کبھی نہیں	بہت ہی کم	کبھی کبھار	اکثر اوقات
33.	جب آپ کچھ غلط کر دیتے ہیں تو آپ کے والدین آپ کی ہاتھ سے پٹائی کرتے ہیں۔				
34.	بدتمیزی کرنے پر آپ کے والدین آپ کو نظر انداز کرتے ہیں۔				
35.	جب آپ کچھ غلط کرتے ہیں تو آپ کے والدین آپ کو تھپڑ مارتے ہیں۔				
36.	سزا کے طور پر آپ کے والدین پیسے یا اور کوئی مراعات آپ سے واپس لیتے ہیں۔				
37.	آپ کے والدین سزا کے طور پر آپ کو کمرے میں بھیج دیتے ہیں۔				
38.	جب آپ کچھ غلط کر دیتے ہیں تو آپ کے والدین آپ کو بیلٹ یا کسی اور چیز سے مارتے ہیں۔				
39.	جب آپ کچھ غلط کر دیتے ہیں تو آپ کے والدین آپ پر چیخنے اور چلاتے ہیں۔				
40.	جب آپ بدتمیزی کرتے ہیں تو آپ کے والدین تھل سے آپ کو سمجھاتے ہیں کہ جو رویہ آپ کا تھا اُس میں کیا غلطی ہے۔				
41.	آپ کے والدین سزا کے طور پر آپ کو ایک کونے میں کھڑا ہونے کو یا بیٹھنے کو کہہ دیتے ہیں۔				
42.	سزا کے طور پر آپ کے والدین آپ سے زیادہ کام کرواتے ہیں۔				

End of the Year Evaluation

ہم چاہتے ہیں کہ آپ وہ تمام طریقے سوچیں جن سے یہ بچہ گزشتہ سال کے مقابلہ میں سکول میں مختلف انداز میں نظر آیا یہ سوچنے کی کوشش کریں کہ یہ بچہ سکول کے شروع کے سال میں کس طرح برتاؤ کر رہا تھا اور پھر اُس وقت سے ہونے والی تبدیلیوں کا جائزہ لیں برائے مہربانی مطابقت رکھنے والے دائرے کو جتنی حد تک ممکن ہو سکے پر کریں۔

1	گزشتہ اکتوبر سے اس بچے کی رویے میں آنے والی بہتری کوریٹ کریں۔ (0-6 کے درمیان)۔	بدترین	کوئی بہتری نہیں	2	3	4	5	6	بہت بہتری
2	مشکل کو حل کرنے اور غصے پر قابو پانے کی اس بچے کی صلاحیت میں آنے والی بہتری کوریٹ کریں۔	بدترین	کوئی بہتری نہیں	2	3	4	5	6	بہت بہتری

نمبر شمار	بیانات	بہت زیادہ	کسی حد تک	تھوڑی سی	کوئی تبدیلی	تھوڑی سی	کسی حد تک	بہت زیادہ
		بدترین	بدترین	بدترین	نہیں	بہتری	بہتری	بہتری
1	خود کو روکنے اور پرسکون رہنے کی صلاحیت جب بہت خوش (excited) یا پریشان ہو۔							
2	اپنے اور دوسروں کی کیفیات (emotions) کو لفظی اظہار دینے کی صلاحیت۔							
3	دوسروں کے احساسات کو سمجھنے اور ہمدردی دکھانے کی صلاحیت۔							
4	دوسروں کے ساتھ اختلافات کو مثبت طریقے سے حل کرنے کی صلاحیت۔							
5	دوسروں کے ساتھ مناسب اور مثبت طریقے سے رابطہ کرنا یا کھیل میں شرکت کرنے کی صلاحیت۔							
6	دوسروں کی مدد کرنا، چیزوں کو شیئر کرنا اور تعاون کرنے کی صلاحیت۔							
7	اپنی باری لینا، عمدہ کھیلنا اور گیم کے اصولوں کی پیروی کرنے کی صلاحیت۔							

Appendix D

10/12/2015

Gmail - Anger Coping Interventin Program



Asia Mushtaq <asia.mushtaq@gmail.com>

Anger Coping Interventin Program

Lochman, John <jlochman@as.ua.edu>
To: Asia Mushtaq <asia.mushtaq@gmail.com>
Cc: "Powell, Nicole" <npowell@as.ua.edu>

Sat, Feb 9, 2008 at 6:15 PM

Asia: It sounds like you are embarked on an interesting series of research studies on SIP and intervention with aggressive children. I am pleased to hear that your study of SIP in aggressive children was fruitful. If you decide to use the Anger Coping Program, Dr. Powell and I would be pleased to respond to any questions as you prepare to implement the program and to look at its effects. I would also note that we have been evaluating a more comprehensive version of the program, known as Coping Power, in recent studies. If you are interested in knowing more about that program, Dr. Powell can supply relevant information.

Take care,
John

John E. Lochman, PhD, ABPP

Editor-in-Chief, Journal of Abnormal Child Psychology
Director, Center for Prevention of Youth Behavior Problems
Professor and Doodridge Saxon Chairholder in Clinical Psychology

The University of Alabama
office phone: 205-348-7678; fax: 205-348-8648
email: jlochman@ua.edu

From: Asia Mushtaq [mailto:asia.mushtaq@gmail.com]
Sent: Fri 2/8/2008 11:37 PM
To: Lochman, John
Subject: Anger Coping Interventin Program
[Quoted text hidden]

10/12/2015

Gmail - Anger Coping Interventin Program



Asia Mushtaq <asia.mushtaq@gmail.com>

Anger Coping Interventin Program

Powell, Nicole <npowell@as.ua.edu>
To: Asia Mushtaq <asia.mushtaq@gmail.com>

Mon, Feb 11, 2008 at 9:30 PM

Asia,

I am attaching a few documents related to the Coping Power Program Dr. Lochman referred to in his email. Please feel free to contact me if you have questions about Anger Coping or Coping Power, or if you would like additional information about either program.

Good luck with your work.

Nicole Powell

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Nicole Powell, Ph.D., MPH

Research Psychologist

Center for the Prevention of Youth Behavior Problems

Box 870348

Tuscaloosa, AL 35487-0348

office: (205) 348-3535

fax: (205) 348-3526

npowell@ua.edu

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**From:** Lochman, John  
**Sent:** Saturday, February 09, 2008 6:15 AM  
**To:** Asia Mushtaq  
**Cc:** Powell, Nicole  
**Subject:** RE: Anger Coping Interventin Program

[Quoted text hidden]

10/12/2015

Gmail - "Outcome Expectation Questionnaire" Urdu Translation



Asia Mushtaq <asia.mushtaq@gmail.com>

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## "Outcome Expectation Questionnaire" Urdu Translation

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David Perry <perrydg@fau.edu>  
To: Asia Mushtaq <asia.mushtaq@gmail.com>

Sat, Feb 23, 2015 at 12:32 AM

You certainly have my permission to use the scales. I believe the scoring is simply the average response. Some items may be reverse scored but those should be easy to detect. I don't have the original scales or scoring instructions.  
D. Perry

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10/12/2015

Gmail - Alabama Parenting Questionnaire- Urdu version



Asia Mushtaq <asia.mushtaq@gmail.com>

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## Alabama Parenting Questionnaire- Urdu version

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Paul J Frick <PFrick@uno.edu>  
To: Asia Mushtaq <asia.mushtaq@gmail.com>

Thu, Feb 21, 2015 at 7:05 PM

Dear Dr. Mushtaq:

Thank you for your interest in the Alabama Parenting Questionnaire (APQ). Copies of the scale and supporting information can be obtained from my web site (address listed below). As you will see from this web site, the APQ has been translated into 11 languages and the contact information for the authors of these translations can be obtained from the web site. I have also attached a list of these approved translations to this e-mail. There is not currently an approved Urdu translation. Thus, you are welcome to make this translation. All I ask is that you send me a copy of the translated scale and that you allow me to list your contact information, so that researchers who wish to use your translation can obtain permission from you. Also, I do request that you send me copies of any manuscript that you publish using the scale, so that I can keep an updated reference list.

Please let me know if you have any questions about this. Otherwise, I wish you the best in your work.

Paul

Paul J. Frick, Ph.D., University Distinguished Professor  
Chair, Department of Psychology  
University of New Orleans  
2001 Geology & Psychology Bldg.  
New Orleans, LA 70148  
Ph: (504)-280-6012 Fax: (504)-280-6049  
e-mail: pfrick@uno.edu  
web: <http://psyc.uno.edu/Faculty%20pages/Frick.html>

10/12/2015

Gmail - Your request for Rothbart Instruments



Asia Mushtaq <asia.mushtaq@gmail.com>

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## Your request for Rothbart Instruments

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sputnam@bowdoin.edu <sputnam@bowdoin.edu>  
To: asia.mushtaq@gmail.com

Tue, Feb 19, 2013 at 7:57 PM

Dear Asia,

You are approved to use the measures from our website for research purposes.

You can download the appropriate questionnaire(s) and other relevant information from the following page <http://www.bowdoin.edu/faculty/s/sputnam/rothbart/pdf/> and input the following information when prompted:

username: [REDACTED]

password: [REDACTED]

Although you may download any of the measures from this page, if you decide to use an instrument other than the one(s) you originally indicated, we ask that you complete a new request form at <http://www.bowdoin.edu/~sputnam/rothbart-temperament-questionnaires/request-forms/>

If you have difficulty in opening or printing the documents, please refer first to our Frequently Asked Questions page (<http://www.bowdoin.edu/~sputnam/rothbart-temperament-questionnaires/faq/#Answer18>) and email me at [sputnam@bowdoin.edu](mailto:sputnam@bowdoin.edu) if this does not resolve your problem.

My collaborators and I wish you the best of luck in your research and hope that you will contact us at the completion of your study to share the results.

You are welcome to develop a Urdu translation of the EATQ. Your work could be of substantial benefit to other researchers investigating temperament in Pakistan and other countries in which Urdu is spoken, so I appreciate your offer to share your translation through us.

Sincerely,

Sam Putnam  
Associate Professor of Psychology  
Bowdoin College