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### Maladaptive Behaviors within the Context of Play

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MALADAPTIVE BEHAVIORS WITHIN THE CONTEXT OF PLAY

An Honors Thesis submitted to the

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And  
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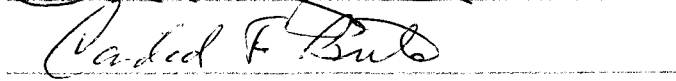
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**Abstract**

Play-based assessment is an observational technique used to evaluate young children's development. The Play Assessment/Intervention System (PLAIS) is one of the most widely researched play-based assessment models and assesses domains such as exploratory play, simple pretend play, complex pretend play, and non-play. One of the criticisms of early childhood assessments and screening instruments is they neglect to evaluate the social and emotional development of young children. The PLAIS codes for aggressive behavior, but not within the context of play. Given that aggression is typical among young children, this study created an observational supplement to the PLAIS that allows observers to code disruptive and aggressive behavior within the context of play. In addition, pilot data will be presented to determine whether disruptive and aggressive behavior can in fact be observed within the context of play. Implications for future research will be provided.

**Maladaptive Behaviors within the Context of Play**

This study aimed to examine mildly aggressive and/or disruptive behavior within the context of play. More specifically, this study examined whether mildly aggressive or disruptive acts could be observed within an already established play-based observation assessment. To do this the PI developed and incorporated maladaptive play definitions into an already established play-based assessment and collected pilot data with four child-teacher-parent triads. Then relationship between children's observed maladaptive play behavior and parent and teacher's ratings of children's externalizing behaviors were examined.

Play is an important part of childhood. By age six, it is estimated that children have spent 15,000 hours playing (Hart, Kelly-Vance & Ryalls, 2009). These hours are used by children in many different ways. Children use play to explore their environment, as a part of their daily routine, and as a learning tool. Play becomes an outlet for practicing social skills, a means of becoming autonomous with their behaviors, and a way to regulate emotions and facilitate new peer relations (Hart, Kelly-Vance & Ryalls, 2009).

Children are not the only beneficiaries of play. Practitioners, educators, and parents can also use play "as a window into [children's] developmental levels" (Kelly-Vance & Ryalls, 2008) through play-based assessment. Play-based assessment is described as an "observational functional assessment technique that can be used to focus on particular domains in the context of a child's play" (Kelly-Vance, Glover, Ruane & Ryalls, 2003). Kelly-Vance and Ryalls (2008) developed a play-based assessment called Play in Early Childhood Evaluation System (PIECES), which was recently renamed the Play Assessment Intervention System (PLAIS). The PLAIS is an observation system that can be used for both assessment and intervention, where PIECES included assessment only (Kelly-Vance, 2012). The emphasis on linking assessment results to

intervention, makes PLAIS unique compared to other play-based assessments (Kelly-Vance & Ryalls, 2008).

PLAIS assesses children's play in three domains: Exploratory play, Simple Pretend Play (also known as Single-Step Play), Complex Play, and Non-play (Kelly-Vance & Ryalls, 2012). Each domain is broken up into a hierarchy of behaviors. Exploratory play, which emerges with early developing, begins with Mouthing. Mouthing (Mo) consists of the child putting an object in its mouth. Basic Manipulation (BM) occurs when the child visually inspects or handles a toy. Single Functional (SF) codes for behaviors such as performing one action with an object (e.g. shakes rattle, rolls ball). Next in the hierarchy is Nonmatching Combination (NC). NC occurs when a child plays with random combinations of objects and functions. This may be when a child puts a toy dish on a car or places food in the ball machine. In contrast to this, Similarity-Based Combination (SC) combines objects of similarity. This may be stacking toy plates or putting blocks of the same color or size together. Functional Combination (FC) occurs when the child combines objects based on similarities in how objects are used. An example of this is if a child puts a fork with a plate. Matching Combination (MC) is coded when a child performs two or more actions with the object and combines the object with its label. An example of MC may be if a child puts a ball in a shape sorter and then puts the same ball into a bucket. Complex Exploration (CE) is a multi-step exploratory play involving any of the prior types of play (functional acts or combinations). Examples of this type of play might be putting all of the barn animals into a barn or combing cups and saucers. Approximate Play (AP) is the last category in the Exploratory play domain. In AP, the child MAY be engaging in pretend play but there is not enough evidence to give them full credit for pretend play. For example, the child may put the phone to his ear but does not talk or make sounds (Kelly-Vance & Ryalls, 2012).

Simple-Pretend Play emerges around the age of two (Kelly-Vance & Ryalls, 2012).

These behaviors are more complex than exploratory play. Self-Directed play (SD) is coded when a child acts on himself. A child displaying this type of play may eat from an empty spoon.

Object-Directed play (ObD) is coded when a child acts on or with inanimate objects. This may be tucking a baby doll into bed or pouring from a pitcher to a cup. Similarly, Other-Directed

play (OtD) is coded when a child acts on another person or lifelike object with a toy. That is, a child may rock a doll, putting the baby doll in a swing, or washes a stuffed dog. Substitution

(Sub) is a skill that is very advanced because it requires the child to ignore the object's actual appearance and pretend it is something else. Sub uses one object in place of another. This might

mean the child is using a block as a telephone or a hairbrush as a microphone. Repetitive

Combinations (RC) is coded when the same play behavior with the same toy is directed toward two or more different objects or people. This can be seen when a child is having a tea party.

Pouring from cup to cup is RC. Variable Combinations (VC) is similar to RC but instead of the same toys, the same play behavior is seen with different toys on one object or person. For

example, when a child uses several doctor tools on a child or doll, the play would be coded as

VC. Finally Agentive play (AgP) is coded when an action is attributed to a doll or lifelike toy. In

other words, a child would be coded using AgP if a child makes a doll drive a car or a toy dog bark.

The behaviors observed within the domains and categories are coded and compared to developmental norms. Aggression is a behavior which is coded within the non-play domain. In other words, when using PLAIS, aggression is coded, but not within the context of play.

### **Play Based Assessment**

The origins of play assessment can be traced back to the turn of the twentieth century

when therapists began using play to assess children's mental health (Kelly-Vance & Ryalls, 2008). In more recent years, school psychologists have used play-based assessment as an observational strategy (Kelly-Vance & Ryalls, 2008). By using play, practitioners and researchers have been able to avoid using traditional standardized tests such as the Bayley Scales of Infant Development or the Stanford Binet Intelligence Scale (Kelly-Vance, Glover, Ruane & Ryalls, 2003). Although, in general, standardized intelligence tests are reliable and provide valid results with older children, using these assessments with infants, toddlers, and preschool children can be problematic. Children, especially young children are inattentive. It is difficult to capture a child's attention long enough to test them adequately (Kelly-Vance & Ryalls, 2008). In addition, children may be uncooperative because the testing format is unlike anything they have done before. For young children, sitting at a table while an adult is presenting information and questions is foreign practice. Therefore, due to young children's inattention and inexperience with formal testing, assessing using a traditional standardized test, "may under represent a child's true developmental level" (Kelly-Vance, Glover, Ruane & Ryalls, 2003), whereas observing children while in play may provide a better estimate of how they are developing.

**Advantages.** According to Kelly-Vance and Ryalls (2008), there are many advantages to using play-based assessment to assess the developmental level of young children. Play is a natural part of children's repertoire and an activity they engage in daily (Kelly-Vance et al., 2003). In addition, during play there are no "situational demands" on the child because the observations are occurring in a naturalistic manner (Kelly-Vance et al., 2003) and because of this children are expected to perform at an "optimum level" as opposed to when they are administered standardized tests. Play-based assessment can also be used to monitor a child's developmental progress and results are easy for parents and teachers to understand (Kelly-Vance

& Ryalls, 2008).

**Intervention.** Intervention typically is seen as the next logical step after play-based assessment has taken place. To illustrate what this might look like, Kelly and Ryalls (2008) provide an example case of a young boy named Jeremy. Jeremy's mother felt as if he was not "demonstrating age-appropriate cognitive skills." As a result, Jeremy was observed and his behaviors were coded using PLAIS. He appeared to be functioning below "normal" levels within the categorization subdomain. After six weeks of intervention, Jeremy showed improvement and continued in interventions. Because of this progress, "no referral for early childhood special education services was necessary" (Kelly-Vance & Ryalls, 2008). As shown by the example, one of the benefits of play-based assessment that is lacking from traditional, standardized assessment is that play-based assessment can lead to interventions and changes in behavior.

#### **The Assessment of Aggression is Absent or Lacking?**

PLAIS is the most recently developed play assessment approach to date (Kelly-Vance & Ryalls, 2008). PLAIS is administered by observing a child engaged in free play with toys that are believed to elicit a wide array of behaviors (Kelly-Vance & Ryalls, 2008). PLAIS focuses on cognitive development which can be studied through the core domains (i.e., exploratory, simple pretend, and complex pretend play; Kelly-Vance & Ryalls, 2008). PLAIS also codes "nonplay behaviors." Behaviors that are coded under the nonplay behavior category include:

Conversation, wandering, and aggression. According to the Play Descriptions and Codes (PDAC; Kelly-Vance & Ryalls, 2012), the recording form used to code behaviors, aggression is coded when the child is observed to "expresses displeasure, anger, or disapproval through physical means in the absence of play." Although PLAIS does not specifically code for aggression within the context of play, aggression among young children is common (Tremblay et



al., 2004). In fact, most children will have initiated the use of physical aggression during infancy (Tremblay et al., 2004). Therefore, it seems logical that not only do children likely demonstrate mild aggression and/or disruptive behavior within the context of play, but it probably occurs fairly regularly. If maladaptive behaviors such as mild aggression were coded within the context of play, normative rates could be obtained and if children were observed to demonstrate a high level of maladaptive behaviors within the context of play they could be identified for early intervention. This could help intervene early with children at-risk for behavior problems.

### **The Development of Aggression in Children**

Various theories emphasize the derivation of childhood aggression such as social learning theory and Patterson's coercion model. Studies inspired by the social learning theory call attention to the influence the social environment has on the development of aggression in children (Alink et al., 2006). Patterson's coercion model, on the other hand describes childhood aggression as familial-based (Alink et al., 2006). According to the coercive family process, both the parent and child are mutually negatively reinforced (Shriver and Allen, 2008). For example, if a child refuses to put on his shoe after the parent has asked to do so, the parent becomes increasingly frustrated. Eventually (depending on perhaps time and the parent's diminishing patience) the parent gives in and lets the child go without shoes in order to bypass a tantrum. Therefore the child is being negatively reinforced because the parent demand (i.e., request for the child to put on shoes) is removed. In this example, the child learns that in order to get what he wants (i.e., avoidance of request), he should refuse the initial instruction and then eventually the parent withdraws the request. At the same time, parent is negatively reinforced because the unpleasant reaction from the child (i.e., whining or tantrum) is removed when they remove the

demand. Patterson's approach, suggested that a child's biological make-up along with reinforcing environmental variables maintain aggression (Alink et al., 2006).

Originally the study of aggression focused on older children (i.e., adolescents), however, the target research group began to shift to younger children. From a developmental perspective, Cunnings, Iannotti, and Zahn-Waxler (1989) suggest that physically aggressive behaviors such as hitting, kicking, and biting occur as early as the first birthday and peak when the child is around two and three years of age. In other words, externalizing behaviors are most prevalent during the preschool years (Tremblay et al., 2004) and these behaviors are normative and exhibited by most young children (Hembree-Kigin & McNeil 1995). It is suggested that children peak in "noncompliant, aggressive and highly active behavior" due to various developmental hurdles they encounter (Hembree-Kigin & McNeil, 1995, p. 5). For example, around the age of two and three, children begin displaying signs of autonomy and independence (Hembree-Kigin & McNeil, 1995). Therefore, when the child does not get his or her way, temper tantrums may occur.

Physical and even verbal aggressiveness tends to decline as the child ages (Cunnings et al., 1989). Around ages four and five, children are learning to work cooperatively with their peers (Hembree-Kigin & McNeil, 1995). Although aggression is still considered a normative behavior, the rate of noncompliance and aggression decline because children learn more sophisticated means of solving problems (Hembree-Kigin & McNeil, 1995).

### **Gender**

While aggression is a normative behavior in both male and female children, aggression tends to be observed at a higher rate among males (Hanish, Saliquist, DiDonato, Fabes & Martin, 2012). As a general observation, young males have the tendency to be more physically

aggressive than young females, whereas females show more relational aggressive behavior (Hanish et al., 2012). Although research suggests that females are less physically aggressive than males, research has shown that females too can be aggressive. In one study focusing on dominance-related behaviors (aggression, commands, submission), researchers found that female toddlers, like male toddlers, are sensitive to dominance ranking and at the root of their same-gender aggression is dominance related-behaviors (Hanish et al., 2012). This means that females use aggression in the same way that males do: in order to obtain dominance and in order to obtain dominance, the females (like the males) will engage in aggression and commanding peers in order to attain submission from others. Dominance-related behaviors begin in preschool aged children in order to establish dominance and control during a developmental time when verbally communicating with peers is more difficult than physically communicating (Hanish et al., 2012).

### **Failing to Regulate Childhood Aggression**

Early childhood is very important for social development. Peer interactions can impact “the development of [children’s] social skills, the formation of peer relationships, rudimentary expectations of peers and the experiences, and [children’s] display of gender-typed behaviors” (Hanish et al., 2012). Aggression can factor into these experiences. Aggression is “stable, self-perpetuation behavior” that starts in those imperative early childhood years (Huesmann, Dubow & Boxer, 2009). From a developmental perspective, most often, aggression that is observed in early childhood is outgrown. This is especially true for typically developing children (Heembree-Kigin & McNeil, 1995). On the other hand, without intervention, children with persistent conduct problems are likely to continue to display behavior problems in the future. For example, (Huesmann et al., 2009) indicated that childhood problem behavior in males was the second best predictor of delinquency. The literature has shown that males that were highly aggressive in

childhood were more likely to remain highly aggressive in adulthood (Huesmann et al., 2009). This type of aggression is known as life-course-persistent (Huesmann et al., 2009).

**Long term affects.** Life-course persistent aggression takes a toll on the individual. The person is at higher risk of “alcohol and drug abuse, accidents, violent crimes, depression, suicide, spouse abuse, and neglectful parenting” (Tremblay et al., 2004). If children do not learn to regulate physical aggression during preschool, they are at risk for a vicious downward cycle. For example, aggression at home often generalizes to other settings, such as school (Tremblay et al., 2004). A child who is routinely verbally aggressive with his/her parents is also likely to argue or use verbal aggression with teachers at school (McMahon & Forehand, 2005). The teacher may begin to associate negatively with the student, as their interactions are unpleasant. As a result the teacher may respond more harshly to the student or avoid the student, in order to avoid an unpleasant interaction thereby leading the student to have less academic engagement. This is supported by Skinner’s operant conditioning. “Operant conditioning states that reinforcers or favorable consequences strengthen exhibited behavior whereas punishers or unfavorable consequences weaken it” (Bhutto, 2011). If the student does not do well academically, he or she is more likely to not be successful in seeking higher education or job training (Huesmann et al., 2009).

### **Limitations of Previous Research and Current Study**

Although play-based assessment focuses on cognitive development in preschool children, socio-emotional development is not focused on. A criticism of current preschool screenings and evaluations is that social-emotional information is not obtained (Bracken & Nagle, 2007). No studies have examined whether mildly aggressive or disruptive acts can be observed within the PLAIS, an already established play-based observation.

Furthermore, no studies have examined the relationship between children's observed maladaptive play behavior and parent and teacher's ratings of children's externalizing behaviors. PLAIS currently assesses aggression outside of play, despite aggression being prevalent within the age group that play-based assessment or PLAIS is used. Therefore, research that examines whether aggression can be observed within a developmental assessment, such as PLAIS is an important empirical question.

The present study aimed to examine aggression within the context of play and determine whether it related to parent and teacher indirect observations. More specifically, if children display more aggression within the context of play are they more likely to be rated by parents and teachers as at-risk or clinically significant on an indirect externalizing measure? By looking at aggression within the context of play, perhaps interventions or even simply educating parents and teachers on everyday strategies to use with children who display more aggression within the context of play, can be put into place. Untreated behavior problems in preschoolers tend to get worse over time, thus interfering with skill development such as self-help, socialization, and academic skills (Hembree-Kigin & McNeil, 1995). With interventions or specific education starting at the preschool age, it is likely that children's early on problem behaviors will be resolved compared to interventions implemented at a later age. Parents and teachers are more likely to make an impact when children are younger and have developed fewer maladaptive habits, there are fewer external influences (e.g., peers, school), and cooperative behaviors are exhibited more by young children thus making intervention easier to implement and more likely to be effective (Hembree-Kigin & McNeil, 1995).

**Purpose of Study/Hypotheses**

The aims of the current study were twofold: 1) develop a supplemental observation to measure maladaptive behavior within the context of play and 2) collect pilot data using the

observation measure. It was hypothesized, based on previous research (Kelly-Vance & Ryalls, 2012), that disruptive and aggressive behavior could be measured within the context of play (specifically within the domains used to code exploratory play and simple pretend play using the PLAIS. It was also hypothesized that children who were observed to engage in more maladaptive play acts would also be rated by their parent and teacher higher on the Eyberg Child Behavior Inventory (ECBI).

## **Methods**

### **Participants**

**Preschool children.** Participants for this study included 4 Caucasian, preschool aged children. Two children were male and were 4 and 3 years of age. The other two children were female and were both 3 years of age. Children included in the study were not identified with a severe developmental disability and had good daycare attendance.

**Parents.** Parents of the preschool children were recruited using flyers (see Appendix A). There were four parents who participated in the study, Caucasian women each approximately aged thirty years. Parent participants were given \$10 gift cards to WalMart for 1) allowing their preschool son or daughter to be observed at the preschool and 2) completing the ECBI rating scale.

**Teacher.** Teacher for the study was recruited from the day care face-to-face. She was a Caucasian female, aged 27. She indicated that she has been a preschool teacher for approximately five years. The teacher was given a \$ 10 gift card to Walmart for each SESBI rating scale they completed (one rating scale for each preschool participant). The teacher received a \$40 gift card.

**Research assistant.** A research assistant was trained and used to assess reliability for training.

### **Setting**

The setting for the study took place in a local day care in Central Illinois in one preschool classroom. There were approximately 3 small tables and 12 chairs. Observations occurred in the Preschool I room of the preschool, which is the room for the children aged 3 years. There were 10 children enrolled in the class, all of whom attend full day. Their classroom was set up with centers for which the children can explore a variety of toys. The centers were dramatic play, with clothes to dress up in along with a kitchen complete with food and dishes, a table and chairs, baby dolls. The block area had blocks of various shapes, sizes, and materials, cars and trucks, tools, and a car mat. Other centers consisted of a writing center, “cozy corner” in which children read books, and “table toys” where children played with toys that worked on fine motor skills. The room is further furnished with shelving units. During the observations, the centers and materials described were available to all preschool students. The observations took place during free- play in the morning.

### **Materials**

The materials used in this observational study were the Play Assessment Intervention System (PLAIS) developed by Kelly-Vance and Ryalls (2008), the Play Assessment Intervention System – Maladaptive Play developed by the PI, a modified version of the Play Assessment Recording and Coding Form (PARC; Kelly-Vance, 2012.) to code for play and maladaptive/aggressive play, and the Eyberg Child Behavior Inventory (ECBI) and Sutter-Eyberg Student Behavior Inventory-Revised (SESBI-R).

**PLAIS.** The children's behaviors were coded into various play behavior and non-play behavior according to the PLAIS coding criteria (see Appendix B). The PLAIS is the most investigated play assessments (Kelly-Vance & Ryalls, 2008). The PLAIS consists of three domains: Exploratory Play, Simple Pretend Play (otherwise known as Single-Step Play), and Complex Pretend play (Kelly-Vance & Ryalls, 2008). Within the domains are seventeen categories (Kelly-Vance & Ryalls, 2008). The categories are coded in a hierarchical fashion. Each play behavior is more advanced than the next.

***Exploratory play.*** The lowest category of play is exploratory (Kelly-Vance & Ryalls, 2008). As it is exploratory, the most basic form of play for children is mouthing; the toy or object is put in mouth (Kelly-Vance & Ryalls, 2008). The play builds on itself, becoming more complex. The highest level of play in the exploratory category is Approximate Pretend Play. In this category, "the child may be engaging in pretend play but there is not enough evidence to give them full credit for pretend play" (Kelly-Vance & Ryalls, 2008).

***Simple pretend play.*** In Simple Pretend Play, the lowest form of play is Self-Directed Play Act. In this form of play, the child acts on himself, that is he pretends a simple act on himself (e.g. drinks from a cup) (Kelly-Vance & Ryalls, 2008). As the play progress, the child becomes more and more advanced. The last play in that category is Agentive Play Act. In this form of play, "action is attributed to animate or lifelike toy (e.g. makes a doll drive a car)" (Kelly-Vance & Ryalls, 2008).

***Complex pretend play.*** The final domain, Complex Pretend Play, consists on one category, Multiple Step Play Act. In this play, two or more Simple Pretend Acts are combined (Kelly-Vance and Ryalls, 2008). There is a code for every play act. The exception to this is when coding aggression.



*Nonplay behaviors.* Aggression in PLAIS is categorized under Nonplay Behaviors. In PLAIS, Nonplay Behaviors assumes that the play has ceased. For example, the child may be cleaning and in transition or be wandering around looking for another toy to play with. The Nonplay behaviors also code for conversation, rough and tumble, which is when a child is engaged in playful physical activity without toys, and when the child is unoccupied, which is when the child is stationary and exhibits behavior with a lack of goal or focus (Kelly-Vance and Ryalls, 2008).

**Play assessment intervention system – maladaptive play (PLAIS – MP).** The PLAIS-MP codes for aggression within play (see Appendix C). Whereas the PLAIS codes aggression as nonplay, PLAIS-MP codes aggression within the play. Within the PLAIS-MP there are three domains; Impulsive play, Destructive/Aggressive play, and Provoking Negative play.

*Impulsive play.* Impulsive play included behaviors such as yelling, running, and grabbing. Yelling is described as loud screeching, screaming or shouting during play that is observed with 2x as much intensity as would be required to hear by another person nearby. This is not intended for outdoor play. Running is coded when it occurs spontaneously within the classroom. Finally, grabbing is described by grasping, pushing, or body bumping with the intent to take another toy roughly from another child during play.

*Destructive/aggressive play.* Destructive/Aggressive play included behaviors such as damaging or destroying another child's play object or the play object of the child being observed. The category also included aggressive behaviors such as using words or action to convey violence.

*Provoking negative play.* Provoking negative play included behaviors that are deemed antagonistic. This describes behaviors such as the child being disruptive, either verbally or

physically to other children. Disruptive verbal occurs when a child teases, gloats, mocks, makes funny faces, or uses other antagonistic behaviors during play. Disruptive physical implies that the child is kicking a child's chair, taping a child's shoulder with a toy or putting a toy in another child's face. Another behavior deemed provoking negative play is one-upping. One upping describes behaviors when a child believes their object is of greater value than that of their peers. For example, "My red car is better than your blue car." Finally, a child can use good guys/bad guys as a way to be aggressive with his or her peers. This behavior is when a child carries out an "us vs. them" in which one peer is the "good guy" and the other is "bad" or the child takes another to jail.

The PLAIS-MP was developed to be used as a supplement to the PLAIS. Therefore, an observer can code for both PLAIS and PLAIS-MP. For example, if the observer observed a child feeding a doll with a spoon while intermittently hitting the doll in the face with the spoon, the observer would code the play act as simple pretend play as the category object-directed play using the PLAIS (while the child is feeding the doll with spoon the child repeatedly hits the doll in the face with the spoon, that would be considered the use of aggression within other-directed play).

**Eyberg child behavior inventory (ECBI) and sutter-eyberg student behavior inventory-revised (SESBI-R.)** The inventories are completed by either parents (ECBI) or teachers (SESBI) and contain items that represent common problematic behaviors that are observed in all children (Eyberg & Pincus, 1999). The ECBI is a 36-question questionnaire (see Appendix D) whereas the SESBI-R is a 38-question questionnaire (see Appendix E). Both scales are scored on a 7-point intensity scale. After each question the parent answers "yes" or "no" to the question "Is this [the behavior] a problem for you?" (Eyberg & Pincus, 1999). The ECBI and

SESBI-R were designed to measure children's externalizing behaviors (ages 2-16; Violence Institute of New Jersey, 2007) and provide a frequency and problem score that are converted to T-scores. The frequency score provides an indication of the severity of disruptive behaviors, whereas the problem score indicates to what extent a parent or teacher finds the behavior problematic (Eyberg & Pincus, 1999). If the child "exceeds the cutoff," it suggests that they are rated by either the teacher or parent as exhibiting significantly more externalizing problems compared to their normative peers (Intensity) or the teacher or parent report to be more significantly bothered by the externalizing problems the child displays compared to other teachers or parents. For the ECBI, Intensity T-score above 60 and Problem T-score above 15 exceed cutoff and thus are clinically significant. For the SESBI-R, Intensity T-scores above 60 and Problem T-scores above 19 exceed cutoff and thus are clinically significant.

**Play Assessment Recording and Coding Form (PARC).** The PARC (Kelly-Vance & Ryalls, 2012) is used to code the play during the observation. Time of each play act is recorded along with the play act. Descriptions of the play act include describing the toy, what the child is doing with the toy, and the presence of other children and/or adults (Kelly-Vance & Ryalls, 2012). Descriptions should be as detailed as possible in order to capture the entirety of the play act (Kelly-Vance & Ryalls, 2012). In order to define the play, the play codes are also recorded. For example, if the play act is simpler pretend or exploratory, the observer writes SSP or EP respectively along with the appropriate subcode (e.g. ObD, Object-Directed Play) (Kelly-Vance & Ryalls, 2008). For use in the current study a modified version of the PARC was developed. On the modified version the time and description of play remains the same. Within the play codes, the observer records the type of play along with the aggressive codes found within the PLAIS-

MP. There is a place to code whether or not the play was appropriate and how many partners the child had in that play act (see Appendix F).

**Procedures: Development of the PLAIS – MP**

In order to develop accurate observations, definitions of aggression were developed. The researcher studied the Revised Edition of School Observation Coding Systems (REDSOCS) (Jacobs et al., 2002). The REDSOCS is designed to code the disruptive behaviors of preschool and elementary aged school children within the classroom setting (Jacobs et al., 2002).

Along with the REDSOCS, the primary investigator (PI) used informal observations gathered from the daycare described in the setting section above during free play. The observations assisted in developing operational definitions for mildly aggressive and disruptive behaviors within the context of play. During the observations, the PI observed various behaviors that could potentially interfere with social relationships such as destroying an object of another child's, saying phrases such as "I'm going to kill you," or "one-upping" another classmate.

Information obtained from the REDSOCS and the classroom observations were used to develop the PLAIS-MP, which is made up of three maladaptive play categories: Impulsive play, Destructive/Aggressive play, and Provoking Negative play

Unlike with PLAIS, aggression will be coded within the context of developmental play, if applicable. In other words, if a child is using other-directed play (which is a subdomain of the simple pretend play) they are acting on another person or lifelike object with a toy. For example, this could be that the child is feeding the doll with a spoon. What we will be looking for is the use of aggression within those subdomains.

**Procedure: Pilot Data**

After definitions and coding procedures for the PLAIS-MP were created, the PI obtained

IRB approval to collect pilot data and observer training began. In order to be considered trained for the observations, the PI and a research assistant practiced using the PARC to code for play and maladaptive/aggressive play within YouTube videos of preschool children playing. When the PI and the research assistant reached eighty percent agreement in the descriptions of play without aggressive/maladaptive behaviors and aggressive/maladaptive play, the PI and the research assistant were considered trained.

In order to recruit prospective participants, flyers were sent home to the families with the information about the study and what is hoped to be learned from the study. The flyers provided contact information and information about incentives. Flyers were sent home with the children for the parents to review. The flyer explained the details of the study and listed the primary investigator's contact information. The flyers also explained of incentives that the parents received for participation. The parents consented to the study before any observations on their child were done. Each parent participant received a \$10 gift card to Walmart after they returned the completed ECBI.

Two female preschool teachers participated in the study. The PI recruited one teacher from the same daycare by approaching them personally and discussing the opportunity to participate in the study. The teacher was also informed of the study and participation incentives. The teacher incentives were similar to the parents. However, they teacher received a \$10 dollar gift card to Walmart for each student who participated in the study. For example, if a teacher had five students participate, the teacher would have received a \$50 gift card to Walmart. Upon completion of each child's consent form, the teacher filled out an SESBI-R for each individual child.

Once informed consent was obtained from the parent, their child (preschool participant)

was observed for 30 min during free-play in their preschool classroom using the PLAIS-MP. Observations were live and play acts were coded using the revised PARC which included the PLAIS-MP codes. Since free-play was a part of the daily preschool schedule, the preschool participants were not asked to do anything outside of their normal routine.

The PI observed each participant while in free play for thirty minutes. Free play in this classroom includes children picking the center they wish to play in for fifteen minutes at a time. While the children are in their centers they can play with any of the materials within that specific center. The PI recorded every play each child partook in on the PARC. The play was recorded as either appropriate or disruptive/maladaptive. Appropriate play is described as the child engaging in play behaviors and non-disruptive behaviors (Jacobs et al., 2002). The definition for disruptive/maladaptive play was developed by the PI. This play is scored as “disruptive/maladaptive” because they hinder the aspects of play that encourage the socialization of young children. The appropriate play is coded by PLAIS. The disruptive/maladaptive play is described by the definitions from the PLAIS-MP.

After the play was recorded as well as the number of children or adult partners the child had, the aggressive play was tallied up. Play was considered to have stopped once a child was no longer at play with a toy or another peer. Behaviors signaling the stopping of play were when a child moved to another activity or cleaned up their area, when the child actively listened or communicated in the absence of play, or when a child was wandering around without playing, perhaps looking for a toy (Kelly-Vance and Ryalls, 2008).

In addition to the preschool observations, information was also collected from the parent and teacher. Once parents consented to participating in the research, the preschool participant's teacher was asked if they would also like to participate. Parents and teachers both received rating

scales (either ECBI for parents or SESBI-R for teachers) to obtain an indirect measure of preschool participant's externalizing behaviors as observed at home and school.

### **Design and Data Analysis**

It was predicted that mildly aggressive or disruptive acts could be observed within an already established play-based observation assessment. This hypothesis was tested by developing and incorporating maladaptive play definitions (i.e., PLAIS-MP) into the already established play-based assessment system (i.e., PLAIS) and using the PLAIS-MP to collect pilot data with four child-teacher-parent triads. The frequency of maladaptive play acts were calculated for each preschool participant to determine whether maladaptive play acts could be observed within the context of play. It was also hypothesized that there would be a relationship between children's observed maladaptive play behavior and parent and teacher's ratings of children's externalizing behaviors. This hypothesis was analyzed by comparing the frequency of maladaptive play acts with parent ECBI and teacher SESBI-R T-scores. Children who displayed a higher frequency of maladaptive play acts were predicted to also have higher Intensity T-scores on parent ECBI and teacher SESBI-R ratings.

### **Results**

To determine whether maladaptive behaviors can be observed within the context of play, the PLAIS-MP was used to code aggressive and/or disruptive behavior within the domains used to code exploratory, simple pretend, and complex pretend play using the PLAIS. Pilot data supported this hypothesis, as children's maladaptive play acts could be recorded using the PLAIS-MP.

It was also hypothesized that maladaptive behavior would be observed within the context of play. To determine if the frequency of maladaptive play behaviors were related to parent and

teacher's indirect ratings of student's externalizing behaviors, the frequency of maladaptive play was compared to T-scores on the ECBI and SESBI-R rating scales. It was hypothesized that children who were observed to engage in more maladaptive play acts would also be rated higher by their parent and teacher higher on the ECBI and SESBI-R rating scales. Pilot data did not necessarily support this hypothesis, especially in parents. Below are the data from the observations of four children, "Sam," "Evan," "Grace," and "Rachel" along with their Intensity T-scores from the ECBI and SESBI-R.

### **Sam**

Sam was Caucasian male, aged 4 years (see Table 1.). During the observation, the highest PLAIS domain Sam reached was the Simple Pretend Play Act. The highest category within the Simple Pretend Play domain was Substitution. Using the PLAIS-MP, Sam had a total of 8 maladaptive/aggressive acts. Sam's Intensity T-score (T= 48) and Problem T-score (T= 42) did not exceed the cutoff for the ECBI. However, his Intensity T-score (T=60) did meet the cut off for the teacher rated SESBI-R. His Problem T-score (T=55) fell within the typical range. In other words, based on Sam's parent's ratings he displayed the same amount of behavior problems as other children his same age and his parent was no more bothered by the behaviors he displayed than other parents. On the other hand, Sam's teacher reported that Sam displayed slightly more behavior problems compared to other children his same age, but she was not bothered by these behaviors.

**Description of observation.** Sam started his center time in the dramatic play center. The first act was described in the PLAIS as Substitution. However, Sam was substituting a hand mixer as a knife and stabbing himself, thus this was coded as an Aggressive Action. Ten minutes later, Sam threw the car mat off of the Lego table, thus coded as Destructive Self. Then he used



the hand mixer as a gun and shot a peer. This play was coded in PLAIS as Substitution and Aggressive Action. During clean-up time, Sam began yelling, and because play had stopped, no play was recorded. Sam's next center was the block area. He began hitting another child with a block (Object Directed Play; Aggressive Action). When his tower fell down, Sam began screaming loudly (Similarity-Based Combinations; Yelling). After yelling about the blocks, Sam began throwing the blocks (Similarity-Based Combinations; Aggressive Actions). Soon after, Sam began building what appeared to be a castle. When asked what he was building, Sam started yelling "Maliyah! Our castle is on fire!" and started throwing blocks at the "fire." (Other-Directed play; Yelling). While playing with the castle, Sam began kicking the blocks (Similarity-Based Combinations; Destructive Other).

**Evan**

Evan, a Caucasian male aged 3 years, showed less aggression than Sam. During the observation, the highest PLAIS domain Evan reached was Simple Pretend Play Act. The highest category within the Simple Pretend Play domain was Similarity-Based Combination. Using the PLAIS-MP Evan had a total of 2 maladaptive/aggressive acts. Evan's Intensity T-score (T=49) and Problem T-score (T=45) for the ECBI and the Intensity T-score (T=51) and Problem T-score (T=51) for the SESBI-R did not exceed cutoffs. In other words, based on Evan's parent and teacher's ratings he displayed externalizing behaviors similar to his same-aged peers and they were not bothered by these behaviors.

**Description of observation.** Evan spent most of his center time watching peers.

Eventually, Evan began building a tower with friends which is coded in the PLAIS as Similarity-Based Combination. However, he then started to knock down the tower without his peers' permission and therefore this was coded as Destructive Other. Approximately ten minutes later,

Evan began holding onto the blocks and hitting classmates with blocks as they were trying to pick up the blocks. Because he was mildly hitting classmates in a teasing fashion this was coded in PLAIS as Object-Directed Play rather than aggression (aggression would be coded within PLAIS as Non-play). In the PLAIS-MP, this play act was coded as Destructive – Other because Evan was hitting peers with the blocks.

**Grace**

Grace was a three-year old, Caucasian female. During the observation, the highest PLAIS domain Grace reached was Complex Pretend Play. The highest category within Complex Pretend Play was Multiple Step Play Act, which is a combination of two or more Simple Pretend Play Acts. Using the PLAIS-MP, Grace had a total of 2 aggressive/maladaptive acts. Grace's Intensity T-score (T=52) and Problem T-score (T=52) did not exceed the cutoff for the ECBI nor did her Intensity T-score (T=41) or Problem T-score (T=43) for the SESBI-R. Based on Grace's parent and teacher's ratings she displayed externalizing behaviors similar to her same-aged peers and her caregivers were not bothered by these behaviors.

**Description of observation.** At the beginning of the observation Grace was in the block area. She began running with the blocks and kept trying to snatch blocks away from peers. Grace's play acts were coded within PLAIS as approximate pretend play. Grace's running and grabbing blocks were coded as two separate maladaptive play acts under the PLAIS-MP and coded as Running and Grabbing. After the play had turned to another area of the block area, Grace began building a car out of blocks and "buckled" her peer in with another block. This play was coded within PLAIS as Complex Pretend Play because two Simple Pretend Play acts occurred: Substitution (using the blocks as a car and a seatbelt) and Other-Directed Play (buckling peer into the "car"). After playing in the "car" for a few minutes, Grace built a bed out

of the blocks and subsequently used a “hammer” (another block) to fix the bed. This play was coded within the PLAIS as Substitution.

**Rachel**

Rachel was the last participant in the pilot study. She was a Caucasian female aged 3 years. During the observation, the highest PLAIS domain Rachel reached was the Simple Pretend Play. The highest category within Simple Pretend Play was Variable Combination. On the day of observation, there were no aggressive/maladaptive acts during her free play. Rachel’s Intensity T-score (T= 50) and Problem T-score (T=43) did not exceed the cutoff for the ECBI neither did her Intensity T-score (T=47) and Problem T-score (T=45) exceed the SESBI-R. Rachel’s behavior, based on ratings by her teacher and parent, are similar to her same-aged peers and are not a problem for her caregivers.

**Discussion**

Results from this study support using the PLAIS-MP to identify maladaptive play acts within the context of play in young children. In using the PLAIS-MP the frequency of children’s mildly aggressive and disruptive behavior can be counted within the context of play. In doing this, the PLAIS-MP could be used as a supplement to the PLAIS, which is an observational assessment system used to assess a child’s current level of development.

This study also provided pilot data regarding the frequency of maladaptive play acts with four preschool-aged children. Sam, who had the highest frequency of maladaptive play acts, also had the highest teacher rating for problematic behaviors. On the other hand, Rachel did not have any maladaptive play acts. This might have been due to the fact that the majority of her day was spent observing her peers. However, her ECBI and SESBI-R T-scores did not exceed cutoff for neither the parent or teacher ratings.

It was difficult to compare the frequency of maladaptive play acts to parent and teacher's externalizing ratings. One reason for this was because data was only collected with four participants. Of the four participants only one was rated by his teacher as displaying slightly more problem behaviors compared to his peers. All the other preschool participants were rated by their parents and teachers as having problem behaviors that are typical of other children their same age. The lack of children whose externalizing behavior was elevated may have also contributed to not finding a relationship between the frequency of observed maladaptive play acts and parent and teacher ratings.

**Limitations.** In the current study, there were a few limitations. One limit to the study is the number of observations. Each child was only observed one time during their free play. In order to get a more comprehensive view of the child, more observations should be done. For example, the day that the boys, Sam and Evan, were observed, the teacher had mentioned that both boys were having a "good day". Therefore, the maladaptive behaviors displayed during the observations might not be an accurate display of mild aggression or disruptive behavior within the context of play that is observed most days. Another limit to the study is the sample size and sample characteristics. Having a larger sample of preschool children would help determine to what extent maladaptive play acts are typical. In addition, the current sample included two boys and two girls. A larger sample would help determine whether there are differences in frequency of maladaptive play acts based on gender. Similarly, the study included three, 3-year olds and one 4-year old. A larger sample would also help answer whether there are differences in maladaptive play acts based on age.

**Future research.** Future research is needed to assess whether children who are observed to engage in more maladaptive play acts will also be rated higher on externalizing measures

completed by parents and teachers. Also, future studies should examine to what extent maladaptive play acts are typical and whether there are differences between males and females in the frequency of maladaptive play acts. That is to say, aggression is typical in young children. It is important to determine what maladaptive play acts are a part of normative development for young children and when does it become a call for intervention. In future studies, the issue of gender should be approached because although males have been found to display more aggression than females, it is not to say that aggression simply does not occur in females. It would be interesting to see which maladaptive behaviors occur most frequently in males and which behaviors occur most frequently in females. Future research should further examine whether or not incorporating maladaptive play within the context of play-based assessments provides a more comprehensive screening/assessment for social/emotional concerns. It is an important research question to address because fully understanding a child's behavior is key to determining whether or not the child is displaying normative behavior for his or her age.

**Implications.** Play is an important part of development in young children. In fact, play promotes social and cognitive development in young children. Aggression is also common in young children. However, when aggression starts to interfere with day to day interactions (e.g., interactions with peers) intervention may be needed. Intervening early is key to preventing long term behavior problems in children. In doing this, it is important to find ways to promote early detection of children at-risk for problem behaviors.

This study suggests that maladaptive play acts can be coded and can be coded within a play-based assessment (i.e., PLAIS). Using the PLAIS-MP as a supplement to the PLAIS as a screener for children with possible developmental concerns has the potential to help promote early detection.

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Table 1. *ECBI and SESBI-R data*

Child	Sex	Age	Parent Raw		Parent T-score		Teacher Raw		Teacher T-score	
			Intensity	Problem	Intensity	Problem	Intensity	Problem	Intensity	Problem
S3 "Sam"	M	4	89	1	48	42	154	13	60	55
S6 "Evan"	M	3	93	3	49	45	104	9	51	51
S5 "Grace"	F	3	104	9	52	52	50	0	41	43
S8 "Rachel"	F	3	96	2	50	43	84	2	47	45



## Appendix A

Dear Parents,

As some of you may know, I am a psychology major at Eastern Illinois University. I am currently working on my Honors Thesis Project and am seeking participants for my study.

My study is looking at aggression and disruptive behavior within the context of play. As parents, I am sure that you have run across behaviors that have left you questioning where the behavior may have developed from. My study is attempting to uncover a piece of the puzzle.

If you are interested, both you and your child will need to be minimally involved. I will be observing your child in his or her classroom during free play. All I would need from you, as the parent, is to complete a brief survey about your child's behavior that you see at home.

There are no foreseeable risks to you or your child from participation in this study. However there are a few benefits. Since aggression is common among young children, it seems likely that aggression would also be observed when young children play. If aggression could be measured within the context of play, future studies 1) could identify to what extent aggression within play is typical and 2) whether measuring aggression within the context of play provides a more sensitive measure of children who are at-risk for behavior problems. Since intervening early is key, it would be important to know to what extent aggressive / disruptive play is typical and when early intervention to address these concerns are appropriate.

Consent for participation is completely voluntary. If you do not participate in the study, there will be no penalty. You may also choose to withdraw from the study at anytime without penalty. The results of the study may be published, but there will be no identifying information included. In other words, neither your name nor your child's name will be used.

With your participation, each parent will also receive a ten dollar gift certificate for your time.

If you have any questions or are interested in the study, please feel free to contact me here at the day care, or by email or phone (elschroeder2@eiu.edu or 618-447-5358). You may also contact my thesis supervisor, Dr. Margaret Floress at mfloress@eiu.edu.

Thank you so much for your consideration,

Elizabeth Schroeder

## Appendix B

### PLAY DESCRIPTIONS AND CODES (PDAC)

Lisa Kelly-Vance and Brigitte O. Ryalls

University of Nebraska-Omaha

#### 1) *EXPLORATORY PLAY (EP)*

- **Mouthing (Mo)**- puts toy in mouth (e.g., sucks block)
- **Basic Manipulation (BM)**- visually inspects or handles toy (e.g., turns object in hand or visually examines it, bangs object)
- **Single Functional Action (SF)**- performs one action with an object (e.g., shakes rattle, rolls ball, opens doors, presses buttons, turns wheel on car)
- **Nonmatching Combination (NC)** -random combinations of objects and functions (e.g., puts toy dish on car)
- **Similarity-based Combinations (SC)**- combining objects based on physical similarity (e.g., stack toy plates, put blocks of same color or size together)
- **Functional Combinations (FC)**- combining objects based on similarities in how objects are used (e.g., put toy lid on teapot, put fork with plate)
- **Matching Combinations (MC)**- performs two or more actions with object; combines object and label (e.g., puts ball in shape sorter and then puts ball in bucket; uses word to label an object)
- **Complex Exploration (CE)**- multi-step exploratory play involving any of the prior types of play (e.g., moving objects in and out of containers, puts all animals in bam, combines cup and saucer)
- **Approximate Pretend Play (AP)** -the child may be engaging in pretend play but there is not enough evidence to give them full credit for pretend play (e.g., puts phone to ear but doesn't talk or make sounds, touches comb to head of doll but does not make combing gesture)

#### 2) *SIMPLE PRETEND PLAY- SINGLE STEP PLAY ACTS (SSP)*

- **Self-Directed Play Act (SD)**- child acts on himself or herself (e.g., child eats from an empty spoon, combs his/her hair, washes hands)
- **Object-Directed Play Act (ObD)**- child acts on or with inanimate objects (e.g., child pours from a pitcher to a cup, arranges bedclothes)
- **Other-Directed Play Act (OtD)**- child acts on another person or lifelike object with a toy (e.g., child feeds a doll, grooms a dog; wash mom with toy sponge, rock doll)
- **Substitution Play Act (Sub)**- using one object to stand in place for another (e.g., using a toothbrush as a paintbrush or pretending a block is a telephone)
- **Repetitive Combinations (RC)** -the same play behavior with the same toy is directed toward two or more different objects/people (e.g., child puts an empty cup to a doll's mouth, then to the mouth of experimenter and self)
- **Variable Combinations (VC)** - the same play behavior is seen with different toys on one object/person (e.g., child pretends to eat a sandwich, then a cookie, then a carrot)
- **Agentive Play Act (AGP)**- action is attributed to animate or lifelike toy (e.g., child makes a doll drive a car, makes a doll shovel sand, makes toy dog bite or bark)

## Appendix C

**Definitions:** Are adapted from the REDSOCS - Revised Edition of the School Observation Coding System

**Appropriate Play:** A child's behavior is coded as Appropriate if the child is engaging in adaptive play behaviors and non-disruptive behaviors. Adaptive play behaviors and non-disruptive behaviors include playing with toys in a way that encourages socialization among young children.

**Disruptive/ Maladaptive Play:** The following play-based behaviors are scored as Disruptive/ Maladaptive because they hinder the aspects of play that encourage socialization of young children. The following categories further differentiate these Disruptive/ Maladaptive play behaviors.

- **Impulsive Play**
  - **Yelling:** Loud screeching, screaming, or shouting during play that is observed with 2x as much intensity as would be required to be heard by another person standing within 3 feet (within the classroom setting). Not coded as impulsive play yelling during outdoor activities.
  - **Running:** Spontaneous running in the classroom during play. Running is faster than a brisk walk and is with enough force to cause disturbance if the child were to run into another person, furniture, or objects in the classroom.
  - **Grabbing:** Grasping, pushing, or body bumping with the intent to take another toy roughly from another child during play.
- **Destructive/Aggressive Play**
  - **Destructive Other:** Behaviors during play that may damage or destroy a play object of another child (i.e. knocking down a block tower built by a peer).
  - **Destructive Self:** Behaviors during play that may damage or destroy an individual play object. The child is observed to use an individual play toy with such force that it could be damaged or cause harm (e.g., 1. ramming cars together with such force that if the car hit the child's hand or finger, it would cause pain; 2. pushing a car off a flat plane with such force that it could hit and cause pain to another child; 3. throwing action figure toy with such force that toy could break or hurt another person if made contact with that person.)
  - **Aggressive (words):** Child uses words during play to convey violence (e.g., a. "hit him with a hammer!" b. "I'm going to kill him!")
  - **Aggressive (actions):** Child uses actions during play to convey violence (e.g., use of a weapon (pretend or devised out of other objects).
- **Provoking Negative Play**

- **Disruptive (verbal/ gestural):** A child teases, gloats, mocks, makes funny faces, or uses other antagonistic behaviors during play.
- **Disruptive (physical):** A child physically is antagonistic in a way that is disruptive to others (e.g., kicking a child's chair repeatedly, taping a child's shoulder with a toy repeatedly, or putting a toy in another child's face repeatedly).
- **One-upping:** Type of behavior consisting of when the target's object has become of more value than the other child's (e.g. "My red car is better than your blue car.")
- **Good vs. Evil:** Making a peer/ object evil or the bad guy (e.g., making them go to jail).

Appendix D

# ECBI™ Eyberg Child Behavior Inventory™

Parent Rating Form by Sheila Eyberg, PhD

Your Name \_\_\_\_\_ Relationship to Child \_\_\_\_\_ Today's Date    /   /     
 Child's Name \_\_\_\_\_ Child's Gender \_\_\_\_\_ Child's Date of Birth    /   /   

**Directions:** Below are a series of phrases that describe children's behavior. Please (1) circle the number describing **how often** the behavior **currently** occurs with your child, and (2) circle either "yes" or "no" to indicate whether the behavior is **currently a problem for you**.

For example, if seldom, you would circle the 2 in response to the following statement:

	Never	Seldom	Sometimes	Often	Always		Is this a problem for you?
1. Refuses to eat vegetables	1	2	3	4	5	6	7 YES NO

Circle only one response for each statement, and respond to all statements. **DO NOT ERASE!** If you need to change an answer, make an "X" through the incorrect answer and circle the correct response. For example:

1. Refuses to eat vegetables	1	2	X	4	5	6	7 YES NO
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	How often does this occur with your child?							Is this a problem for you?	
	Never	Seldom	Sometimes	Often	Always	YES	NO		
1. Dawdles in getting dressed	1	2	3	4	5	6	7	YES	NO
2. Dawdles or lingers at mealtime	1	2	3	4	5	6	7	YES	NO
3. Has poor table manners	1	2	3	4	5	6	7	YES	NO
4. Refuses to eat food presented	1	2	3	4	5	6	7	YES	NO
5. Refuses to do chores when asked	1	2	3	4	5	6	7	YES	NO
6. Slow in getting ready for bed	1	2	3	4	5	6	7	YES	NO
7. Refuses to go to bed on time	1	2	3	4	5	6	7	YES	NO
8. Does not obey house rules on own	1	2	3	4	5	6	7	YES	NO
9. Refuses to obey until threatened with punishment	1	2	3	4	5	6	7	YES	NO
10. Acts defiant when told to do something	1	2	3	4	5	6	7	YES	NO
11. Argues with parents about rules	1	2	3	4	5	6	7	YES	NO
12. Gets angry when doesn't get own way	1	2	3	4	5	6	7	YES	NO
13. Has temper tantrums	1	2	3	4	5	6	7	YES	NO
14. Sasses adults	1	2	3	4	5	6	7	YES	NO
15. Whines	1	2	3	4	5	6	7	YES	NO

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Appendix E

# SESBI-R™ Sutter-Eyberg Student Behavior Inventory-Revised™

Teacher Rating Form by Sheila Eyberg, PhD, and Joseph Sutter, PhD

Rater's Name \_\_\_\_\_ Hours/week Contact With Child \_\_\_\_\_ Today's Date   /  /    
 Child's Name \_\_\_\_\_ Child's Gender \_\_\_\_\_ Child's Date of Birth   /  /  

**Directions:** Below are a series of phrases that describe children's behavior. Please (1) circle the number describing **how often** the behavior **currently** occurs with this student, and (2) circle either "yes" or "no" to indicate whether the behavior is **currently a problem for you**.

For example, if seldom, you would circle the 2 in response to the following statement:

	Never	Seldom	Sometimes	Often	Always	Is this a problem for you?			
1. Writes carelessly	1	2	3	4	5	6	7	YES	NO

Circle only one response for each statement, and respond to all statements. **DO NOT ERASE!** If you need to change an answer, make an "X" through the incorrect answer and circle the correct response. For example:

1. Writes carelessly	1	2	X	4	5	6	7	YES	NO
----------------------	---	---	---	---	---	---	---	-----	----

	How often does this occur with this student?							Is this a problem for you?	
	Never	Seldom	Sometimes	Often	Always			YES	NO
1. Has temper tantrums	1	2	3	4	5	6	7	YES	NO
2. Fouts	1	2	3	4	5	6	7	YES	NO
3. Teases or provokes other students	1	2	3	4	5	6	7	YES	NO
4. Lies	1	2	3	4	5	6	7	YES	NO
5. Acts frustrated with difficult tasks	1	2	3	4	5	6	7	YES	NO
6. Does not obey school rules on his/her own	1	2	3	4	5	6	7	YES	NO
7. Demands teacher attention	1	2	3	4	5	6	7	YES	NO
8. Dawdles in obeying rules or instructions	1	2	3	4	5	6	7	YES	NO
9. Acts bossy with other students	1	2	3	4	5	6	7	YES	NO
10. Gets angry when doesn't get his/her own way	1	2	3	4	5	6	7	YES	NO
11. Interrupts teacher	1	2	3	4	5	6	7	YES	NO
12. Impulsive, acts before thinking	1	2	3	4	5	6	7	YES	NO
13. Refuses to obey until threatened with punishment	1	2	3	4	5	6	7	YES	NO
14. Has difficulty staying on task	1	2	3	4	5	6	7	YES	NO
15. Blames others for problem behaviors	1	2	3	4	5	6	7	YES	NO

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