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IMPORTANCE OF KNOWLEDGE OF BEHAVIOR IN PREDICTING PARENT
PERCEPTION OF PROBLEM BEHAVIORS

A dissertation submitted in partial fulfillment
of the requirements for the degree of

DOCTOR OF PSYCHOLOGY

to the faculty of the

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ABSTRACT

IMPORTANCE OF KNOWLEDGE OF BEHAVIOR IN PREDICTING PARENT PERCEPTION OF PROBLEM BEHAVIORS

Ronnit Nazarian

The influence of familial factors (e.g., child-related, parental, and environmental characteristics) on child problem behaviors has regularly been studied. An under-researched area is how these variables work to predict how well parents understand their child's problem behavior function. 338 parents, recruited through MTurk and Facebook, of children between 3 to 5 years old displaying early onset problem behavior participated in this research. Of the 338 children, 206 (61%) indicated significantly problematic behaviors. This research examines parent knowledge of behavior and their understanding of the function of their child's problem behavior. Moreover, whether a parent's understanding of the function of their child's behavior is affected by certain variables (parent knowledge of behavior principles, knowledge of function, income level, education level, child birth order, and number of parenting years) was examined. Results indicate that knowledge of behavioral principles and general knowledge of function are significantly correlated and can be predicted by parent education and income level. Moreover, evidence has shown both knowledge of behavioral principles and general knowledge of function to be related to a parent's ability to identify their child's behavior function similarly to a functional behavior assessment questionnaire. Implications of these findings may highlight the importance of a specific training workshop for parents on knowledge of behavioral principles and function in order to increase their ability to intervene with their child's behavior.

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Chapter I

Introduction

Statement of Purpose

At present, a significant number of children, ages 3 to 5 years old, in the United States are at-risk for or are currently experiencing externalizing problem behaviors (i.e., noncompliance, aggression, tantrum, defiance, and violence) (Child and Adolescent Health Measurement Initiative [CAHMI], 2018; Ogundele, 2018). Research has shown that early onset problem behaviors, among preschool-aged children, can negatively impact children's academic outcomes, peer relationships, and family functioning (Bulotsky-Shearer, et al., 2012; Turney & McInahan, 2015). Consequently, this can continue into adolescence and adulthood, thus, impacting their jobs, source of income, health, and relationships, and increasing risk of violent behavior, delinquency, and criminal behaviors (Fox & Smith, 2007; Institute of Medicine, 2009; Staff, et al., 2015).

To prevent the escalation of early onset problem behaviors, it is essential that parents are able to identify and understand their child's problem behavior accurately during the preschool years in order to take the appropriate steps (e.g., early intervention) towards addressing the problem behavior (Ellingson, et al., 2004; Perry, et al., 2011). Early interventions during the preschool years can prevent problem behaviors from worsening and, more importantly, decrease problem behaviors (Maag & Katsiyannis, 2010; Schindler, et al., 2015).

The current study focuses on the influence of knowledge of behavioral principles and overall knowledge of function of children's behavior on a parent's ability to identify the function of their child's behavior. Much of research suggests that increasing

knowledge of problem behaviors is related to a reduction in problem behaviors. However, research on the predictor variables of parent knowledge of behavior is limited. Thus, further research in these areas were warranted in understanding the variables that contribute to how parents perceive problem behaviors and in what way their knowledge of behavior affects their understanding of the function of their child's problem behavior. The current study examines the demographic variables (i.e., education level, income level) that can predict the level of knowledge of behavior a parent may possess. Moreover, research on parent knowledge of function of behavior is scarce and, therefore, the research extends findings from previous studies and examines predictor variables of parent knowledge of function of behavior and its impact on parent perception of their child's problem behavior. Data found from this study will improve understanding of problem behaviors and identify areas of weaknesses amongst parents that need development.

Chapter II

Literature Review

Importance of Parental Role with Problem Behaviors

In order to better understand a child's problem behavior, it is essential to explore the problem behavior through the perception of their parents, as well as in the context of their interactions with their parents (Peterson, et al., 2002), for the reason that parents have the most knowledge on their children (Fettig & Ostrosky, 2011). Parents play a significant role in both shaping and maintaining problem behaviors (Peterson, et al., 2002) and play a pivotal role in their child's engagement with the environment, development of new skills, and independence (Fettig & Ostrosky, 2011). Parent knowledge of and related involvement in children's mental health is particularly essential with preschool-aged children (Ansari & Gershoff, 2016). Preschool-aged children who exhibit problem behaviors are susceptible to worsening symptoms if their parents are unable to detect or report their problem behaviors, thus impacting their ability to receive assistance with effective interventions (Ellingson, et al., 2004; Tichovolsky, et al., 2013).

Barriers to Detecting and Reporting Childhood Problem Behaviors

While there are effective strategies to decrease identified problem behaviors (Maag & Katsiyannis, 2010; Schindler, et al., 2015), a vast number of children have not yet been identified by their parents and, consequently, are not receiving appropriate interventions (Ellingson, et al., 2004). Difficulties exist in detecting and diagnosing problem behaviors in young children due to the developmental appropriateness of many of these behaviors, which can result in a parent's difficulty in distinguishing normal from problematic behaviors (Briggs-Gowan, et al., 2006; Ellingson, et al., 2004). During the

preschool age, problem behaviors are typically thought of by parents as being common and are often not thought to be alarming (Tichovolsky, et al., 2013). Ellingson and colleagues' (2004) research found that only approximately 18% of parents with preschool-aged children exhibiting elevated problem behaviors had spoken with a pediatric care provider (pediatricians, psychologists/psychiatrists, social workers, early intervention providers, or other medical specialists) about their child's behavioral health. Children who are identified by their parents with a problem behavior are typically those who display their behavior in an overly elevated manner. Moreover, parents who typically seek assistance and speak with a provider tend to have greater difficulties of their own, such as elevated parental worry, parental depression/anxiety, disruption of family routines, and lower social competence (Ellingson, et al., 2004). Unfortunately, children who display less severe problem behaviors are not typically identified by their parents due to parent situational barriers, psychological barriers (e.g., lack of confidence, concern for being judged by professionals, shame for needing help, worry about their child being labelled permanently), misconception about services, and lack of availability of services (Koerting, et al., 2013). Moreover, parents may not seek assistance due to beliefs that problem behaviors are transitory and will decrease over time (Briggs-Gowan, et al., 2006) or due to skepticism about the value and willingness of providers to treat the problem behavior (Koerting, et al., 2013). These barriers can hinder a parent's ability to identify problem behaviors and further seek treatment for their child's problem behaviors (Koerting, et al., 2013).

Parent Knowledge of Behavioral Principles

Research has shown a direct association between parent knowledge of behavioral principles (e.g., positive reinforcement, punishment, differential reinforcement, contingencies) and child problem behaviors (Tiano & McNeil, 2014). Tiano and McNeil (2014) found that parents with greater knowledge of behavioral principles reported their child to display less externalizing problem behaviors, which may be attributed to a parent having the knowledge of how to handle child problem behaviors and, thus, improving behavior and decreasing frequency of their child's problem behavior. These results are consistent with previous research (Kazdin, 2005; McCart & Sheidow, 2016; Morawska, et al., 2009; Winter, et al., 2012).

One of the most effective ways to reduce child externalizing problem behaviors in preschool-aged children is through increasing parent knowledge of, and use of, behavioral strategies (methods derived from one or more basic principles of behavior and utilized by applied behavior analyses, such as rewards, ignoring, and giving effective instruction; Cooper, et al., 2007) with behavioral parent training interventions (Tiano & McNeil, 2014). Parent training interventions are well-established treatments, that focus on teaching parents specific behavioral strategies, and have shown to be effective in increasing desired behaviors and reducing undesired behaviors (Kazdin, 2005). Studies suggest that increasing parent knowledge of behavioral strategies leads to a reduction in child problem behaviors (Kazdin, 2005; McCart & Sheidow, 2016). Fettig and Ostrosky (2011) found a causal relationship between parent-implemented behavioral strategies and a reduction in their child's problem behaviors. Not only would parents benefit from increasing use of behavioral strategies but also increasing knowledge of behavioral

principles (a description of the functional relation(s) between behavior and one or more of its controlling variables that has generality across organisms, species, settings, and behaviors; Cooper, et al., 2007) and understanding the principle in which each behavioral strategy is derived from (Tiano & McNeil, 2014). For example, a behavior strategy would be a token economy but the principle it is derived from would be a positive reinforcement. Although behavioral parent training interventions typically teach parents how to implement behavioral strategies, additional parent training in behavioral principles may aid in enhancing the parent's use of behavioral strategies to manage their child's behavior (Tiano & McNeil, 2014).

Predictor Variables of Parent Knowledge of Behavior and Factors Related to Problem Behaviors

The level of knowledge a parent has on child rearing skills, child development processes, and developmental milestones, are dependent on specific variables, such as income and education level (Morawska, et al., 2009; Tiano & McNeil, 2014). Parents with higher income levels and higher education levels demonstrate greater parenting knowledge of behavioral principles and lower child problem behaviors (Morawska, et al., 2009; Tiano & McNeil, 2014). Parents with lower income levels and lower education levels may have less knowledge of behavioral principles and, therefore, may need more support. Preschool-aged children who come from lower socioeconomic backgrounds display more problem behaviors (Morawska, et al., 2009; Tiano & McNeil, 2014), are at greater risk for the development of problem behaviors, and are more likely to exhibit higher levels of physical aggression than children from higher socioeconomic backgrounds (Mazza et al., 2017).

The age of a parent and their years of parenting experience are two factors that are related to their level of knowledge of behavioral principles (Morawska, et al., 2009; Tiano & McNeil, 2014). Parents who are older in age display greater knowledge, which may be due to greater opportunities to learn about child development and effective parenting strategies (Morawska, et al., 2009; Tiano & McNeil, 2014). Tiano and McNeil (2014) found that years of parenting experience influences parents' level of knowledge of behavioral principles. The more experience a parent has with trying a variety of behavior management strategies, the greater level of knowledge of behavioral principles a parent will possess. Subsequently, greater knowledge of behavioral principles is associated with lower levels of problem behaviors in their child, which could be influenced by the parent's experience with managing behavior. Moreover, Tiano and McNeil (2014) found that the older the child is, the greater knowledge of behavioral principles the parent possesses, which may be a result of more opportunities to be advised by professionals (e.g., physicians and preschool teachers) and intervene with the problem behavior.

While previous studies have assessed the influence of predictor variables on parent knowledge of behavioral principles, research in this area is limited. Moreover, there is a gap in research in examining these predictor variables (e.g., income level, education level, and parenting experiencing) in relation to a parent's knowledge of function of behavior.

Importance of Understanding the Function of a Child's Problem Behavior

Much of the research that focuses on parent knowledge of behavioral principles have focused in the realm of problem behaviors, comparison between maternal and paternal levels of knowledge, and variables that impact their level of knowledge (Tiano &

McNeil, 2014). However, there is a gap in research on examining the variables that impact a parent's knowledge of functional behavior assessments (identifying the likely function of a problem behavior or why the behavior is likely occurring in the current environment; Friedman, 2010) and how functional knowledge can improve a parent's understanding of their child's problem behavior (Friedman, 2010). Moreover, research on the relationship between parent knowledge of behavior principle and knowledge of functional behavior assessments is scarce. Limited research shows that knowledge of behavior principles coupled with knowledge of functional behavior assessments can be effective in decreasing problem behaviors. The assumption is that in order to change a problem behavior, parents must first understand *why* the child is engaging in that problem behavior or what need that problem behavior is meeting (i.e., the function of a problem behavior) so that they can modify the environment to reduce the need/motivation for that problem behavior or teach the child skills to help him/her meet that need in a more appropriate way. Understanding the function of a behavior can guide intervention planning, and, with knowledge of behavioral principles, parents can identify an intervention that can best serve the function and increase children's appropriate alternative behaviors, which in turn will decrease problem behaviors (Friedman, 2010; Shayne & Miltenberger, 2013; Von Schulz, et al., 2018).

Researchers in the field of applied behavior analysis (ABA) propose four main functions of problem behavior: (1) attention- child engages in inappropriate behavior to receive attention from a peer or adult, (2) escape- child engages in problem behavior to get out of or avoid a situation, (3) tangible- child engages in problem behavior to gain access to an object or activity, and (4) automatic/sensory stimulation- child engages in

problem behavior because it feels good to them (Kerr & Nelson, 2010; Meadan, et al., 2016).

A parent's understanding of how to conduct functional behavior assessments (FBAs) can increase their ability to manage their child's problem behaviors (Shayne & Miltenberger, 2013) as they are better able to identify the function of their child's problem behaviors and, subsequently, identify appropriate function-based treatments for problem behaviors. A parent's ability to generate a hypothesis about the function of a problem behavior allows them to tailor interventions based on the function of the behavior rather than what the problem behavior looks like, which is more likely to result in a meaningful and persisting change (Fettig & Ostrosky, 2011). Fettig and Ostrosky (2011) found that when parents implemented function-based interventions, their child's problem behaviors decreased and remained low following parent training. In addition, they also reported that low rates of challenging behaviors, continuing even after parent training was complete, was attributed to parents' learned knowledge of functional assessments and continuous use of functional assessment-based strategies. The use of functional assessment-based interventions and parent knowledge of functional assessments, in guiding intervention, can significantly improve child problem behaviors (Fettig & Ostrosky, 2011). Though Fettig and Ostrosky (2011) showed the importance of parent knowledge of functional assessment-based strategies, research on effective interventions that teach parents to conduct FBAs and, subsequently, decrease preschool problem behaviors are typically for parents of children with Autism Spectrum Disorder or Development Disability (Durand, 2013; Hieneman & Fefer, 2017). There is a dearth in research on examining functional knowledge and the implementation of function-based

interventions for parents of preschoolers who display problem behaviors but have not been diagnosed with a disorder. It is crucial for all parents to be provided with behavior management strategies to address the specific function of a child's problem behavior. A misunderstanding of the appropriate function of a problem behavior can result in accidentally reinforcing the problem behavior (Von Schulz, et al., 2018).

If increased knowledge of behavioral principles leads to better identification of the function of problem behavior, this will provide information on how to tailor parent training interventions to better address problem behaviors. However, there is a paucity of research that examines whether there is a relationship between the level of parent knowledge of function of behavior and parent knowledge of behavioral principles. Though previous research examines the predictor variables of parent knowledge of behavioral principles, there is a gap in research in identifying the predictor variables of parent knowledge of function of behavior and its influence on a parent's understanding of their child's problem behavior. Therefore, as warranted, this study will explore the relationship and determine whether parent knowledge of function can predict a parent's ability to identify the function of their child's problem behavior. As well, the research will examine the specific variables that predict a parent's knowledge of function of behavior.

As parent implemented functional assessment-based interventions result in a decrease in children's problem behavior and an increase in positive behavioral outcomes (Fettig & Ostrosky, 2011), perhaps parent training can facilitate young children's behavior change and reduce problem behaviors. However, rigorous investigations of the relationship between parent knowledge of function of behavior and children problem

behaviors are rare. As indicated, it is important for this research to examine the abilities of parents assessing their child's function and planning interventions independently. Moreover, previous studies focus on parents of children who have a diagnosis (e.g., Autism, ADHD). Therefore, this study will examine parent knowledge across parents of children who display problem behaviors but have not been diagnosed with a disorder. This research will assist in identifying the population of parents who may have less knowledge of function of behavior and, therefore, should be targeted to receive extensive support.

Chapter III

Research Questions and Hypotheses

The purpose of this research was to examine the relationship between the knowledge of behavioral principles and knowledge of function of behavior among parents of preschoolers. Moreover, the study will explore whether the level of parent knowledge of behavioral principles and function of behavior is related to their identification of the function of their child's problem behavior. Furthermore, the research examined the relationship between knowledge of behavior principles and function of behavior with selection of an appropriate intervention plan for their child's problem behavior. Finally, parent variables (income level, education level, parent's age, child's age, and years of parenting) were examined to determine to what degree they predicted a parent's level of knowledge of behavioral principles and function of behavior.

The following questions were explored:

1. How well do parents understand the function of their child's behavior?
2. Does parent knowledge of behavior influence their ability to select an effective function-based intervention to decrease their child's problem behavior?
3. What variables predict parent knowledge of function of behavior and how well parents are able to identify their child's function of behavior?
4. Is there a relationship between a parent's income level and the type of problem behavior displayed by a child?

As Tiano and McNeil (2014) found that parents who have greater knowledge of behavioral principles display greater knowledge of behavioral management strategies, it is hypothesized that:

1. There will be a significant positive relationship between parent knowledge of behavioral principles, as measured by the Knowledge of Behavioral Principles as Applied to Children (KBPAC) questionnaire, and knowledge of function of behavior, as measured by the Function of Behavior Vignettes (FBV).
2. Parent knowledge of behavioral principles, as measured on the KBPAC, will positively predict parents who identify the function of their child's problem behavior similarly to the function identified on the Behavior Questionnaire (BQ) (i.e., an instrument that identifies functional hypotheses of problem behavior in general settings based on parent reported observations of child behavior).

As Fettig and Ostrosky (2011) found that parents who have greater knowledge of functional assessment display greater knowledge of functional assessment-based strategies, it is hypothesized that:

3. Parent knowledge of function of behavior, as measured on the FBV, will positively predict parents who identify the function of their child's problem behavior similarly to the function identified on the BQ.

Tiano and McNeil (2014) found that parents who display greater knowledge of behavioral principles had increased knowledge of behavior management strategies and reported less externalizing problem behaviors in their children. As such, it is hypothesized that:

4. Parent knowledge of behavioral principles, as measured on the KBPAC, will positively predict parents who report using a function-based intervention that responds to their child's problem behavior in a way that serves to address the function of the behavior. (Parents will report their response to their child's problem behavior on a forced choice question that provides various intervention options that serve different behavior functions.)
5. As parent knowledge of behavioral principles and function of behavior, as measured on the KBPAC and FBV, increases, there will be a decrease in their child's behavior severity level.
 - a. There will be a significant negative relationship between reported behavior severity level and parent knowledge of behavioral principles.
 - b. There will be a significant negative relationship between reported behavior severity level and parent knowledge of function of behavior.

Tiano and McNeil (2014) reported that the older the child is and the more years of experience a parent has with parenting practices, the greater knowledge of behavioral principles the parent possesses. Given the impact of the age of children, and years of parenting experience, on behavior, it is hypothesized that:

6. Years of parenting experience will positively predict parents who identify the function of their child's problem behavior similarly to the function identified on the BQ.
7. Parents who have more than one child will be able to better identify the function of their child's behavior than parents with one child.

8. Of those parents who have more than one child, those parents who completed all measures about their youngest child will identify the function of their child's behavior more similarly to the function identified on the BQ than those who focused on their oldest child.

Parents with higher income and education levels display greater parenting knowledge and lower child problem behaviors (Morawska et al., 2009; Tiano & McNeil, 2014). Thus, it is hypothesized that:

9. As parent income level increases, there will be an increase in parent knowledge of behavioral principles and function of behavior, as measured on the KBPAC and FBV, and, subsequently, a decrease in the severity level of their child's behavior.
 - a. There will be a positive relationship between parent income level and knowledge of behavioral principles.
 - b. There will be a positive relationship between parent income level and knowledge of function of behavior.
 - c. There will be a negative relationship between income level and the degree to which parents report the severity level of their child's problem behavior.
10. As parent education level increases, there will be an increase in parent knowledge of behavioral principles and function of behavior, as measured on the KBPAC and FBV, and, subsequently, a decrease in the severity level of their child's behavior.

- a. There will be a positive relationship between parent education level and knowledge of behavioral principles.
- b. There will be a positive relationship between parent education level and knowledge of function of behavior.
- c. There will be a negative relationship between education level and the degree to which parents report the severity level of their child's problem behavior.

Given the role that income level may play in understanding child behavior and the function of it, it is hypothesized that there will be differences in types of behavior displayed by children based on income level. Consistent with the findings of Mazza and colleagues (2017), it is hypothesized that:

11. There will be a significant negative association between parent income level and parents who identify their children as displaying aggression.

Chapter IV

Methods

Participants and Procedure

Participants included in this study are parents (aged 18 or older) of children who are between the ages of 3 to 5 years old and who display problem behaviors. Participants in this study were recruited from various parent groups on a social media outlet (Facebook) and through the Amazon Mechanical Turk (MTurk) platform. An online survey was distributed to parents, which was created on Qualtrics software and used to collect anonymous responses from parents and store data. The online survey contained several measures including a demographic questionnaire (appendix A), Behavior Questionnaire (BQ) (appendix B), 10-item Knowledge of Behavioral Principles as Applied to Children (KBPAC) questionnaire (appendix C), and Function of Behavior Vignettes (FBV) (appendix D).

Parents were invited using MTurk, which is a crowdsourcing marketplace that can be used to recruit participants for tasks, such as survey participation, accessing over 500,000 diverse workers living in over 190 countries with a majority of MTurk workers living in the United States (Buhrmester, et al., 2011; Paolacci & Chandler, 2014). Each MTurk participant was paid a fee for their participation in the study. Four validity questions were embedded within the survey, to test for inattentive responders, in a manner that was consistent with the work of Oppenheimer and colleagues (2009). All participants whose responses failed the attention check were removed from the data set and excluded from analyses ($N = 97$).

Parents were also invited on Facebook and they were members of various parent groups on Facebook that were either: 1) specifically tailored towards parents with children with problem behaviors or 2) generally supporting parents within certain cities with family life. Facebook has shown to provide a valid approach to collecting data through social media and reaching a targeted population that is both large and diverse, including people of different political views, backgrounds, ages, and family links (such as parents) (Kosinski, et al., 2015). A Facebook post (appendix E) was made on each group that explained the study, invited parents to participate in the study, and included a link that directed parents to the online survey provided on Qualtrics.

Participants were provided with the option, at the beginning of each online survey, to receive an automated email (appendix F), upon completion of the online survey, with a copy of their results along with a copy of answers from each measure. The email also included a scoring sheet to the Problem Behavior Questionnaire to allow the parents to assess the function of their child's problem behavior. Finally, the email included a link to the Center for Parent Information & Resources website (<https://www.parentcenterhub.org/behavior-at-home/>) that provides parents with resources for managing their child's behaviors through behavior management strategies, understanding functional assessments, and improving their family life.

Children's level of problem behavior severity was assessed by having parents rate their child's behavior on a 1 (not very problematic) to 7 (very problematic) Likert scale. While all of the data responses were examined in looking at findings for various measures, when research questions addressed problem behaviors only those that were rated a level 5 or higher on the Likert scale were considered significantly problematic.

The number 5 was chosen as being significant in the study because it is in the 71st percentile of the Likert scale. Of the 338 children, 206 (60.9%) were rated at a level 5 or higher by parents. Of the 206 children rated at a level 5 or higher, the majority of the children were rated at a level 5 ($N = 111$, 53.88%). Frequency data for the demographic characteristics of the parent sample (i.e., gender, race, education level) are reported in Table 1. Four hundred and fifty-eight individuals attempted the survey, but only 338 (73.80%) successfully completed the survey. Of the 338 parent respondents, 210 (62.13%) were male and 128 (37.87%) were female. A majority of the parent respondents were between 30 to 49 years old ($N = 189$, 55.92%). Moreover, a majority of the parent respondents were Asian ($N = 150$, 44.39%) and White ($N = 139$, 41.12%). Of the participants, 176 (52.07%) were international parents and 162 (47.93%) were from the United States. Frequency data for the demographic characteristics of the sample's children (i.e., gender, age, number of siblings) who were rated by parents as displaying significantly problematic behaviors (behavior severity level equivalent to 5 or higher) are reported in Table 2 ($N = 206$). Of the 206 children reported by parents, 133 (64.56%) were male and 73 (35.44%) were female. Moreover, 85 (41.26%) were 3 years old, 71 (34.47) were 4 years old, and 50 (24.27%) were 5 years old. Of the child problem behavior types identified by parents, a major of children were reported engaging in aggression ($N = 57$, 27.67%) and tantrum ($N = 53$, 25.73%).

Table 1*Demographic Characteristics of Sample Parent (N = 338)*

Characteristic	<i>n</i>	%
Gender		
Male	210	62.13
Female	128	37.87
Parent Age		
18 to 29 years old	143	42.31
30 to 49 years old	189	55.92
50 to 64 years old	6	1.78
Race		
White	139	41.12
Black or African American	18	5.33
Hispanic	25	7.40
American Indian or Alaska Native	4	1.18
Asian	150	44.39
Multiracial	1	.30
Other	1	.30
Highest Level of Education		
High school graduate or equivalent (e.g., GED)	11	3.25
Some college, no degree	23	6.80
Associate degree (e.g., AA, AS)	16	4.73
	191	56.51

Bachelor's degree (e.g., BA, BS)	85	25.15
Master's degree (e.g., MA, MS, Med)	8	2.37
Professional degree (e.g., MD, DDS, DVM)	3	.89
Doctorate (e.g., PhD, PsyD, EdD)	7	2.07
Total Annual Income	78	23.08
Unemployed	96	28.40
Less than \$29,999	82	24.26
\$30,000 to \$49,999	44	13.02
\$50,000 to \$74,999	29	8.58
\$75,000 to \$99,999	2	.59
\$100,000 to \$499,999		
\$500,000 or more	162	47.93
Location	176	52.07
United States		
International	121	35.80
Relationship to Child	181	53.55
Mother	21	6.21
Father	5	1.48
Aunt/Uncle	10	2.96
Grandparent		
Sibling		

Table 2*Demographic Characteristics of Sample Children (N = 206)*

Characteristic	<i>n</i>	%
Gender		
Male	133	64.56
Female	73	35.44
Child's Age		
3 years old	85	41.26
4 years old	71	34.47
5 years old	50	24.27
Number of Siblings		
0	59	28.64
1	114	55.34
2	26	12.62
3-4	5	2.43
5 or more	2	.97
Birth Order Position		
Only child	69	33.50
First child	93	45.15
Second child	33	16.02
Third child	7	3.39
Fourth child	2	.97
Other	2	.97

Behavior Severity Level		
5	111	53.88
6	78	37.86
7	17	8.25
Behavior Type		
Aggression	57	27.67
Tantrum	53	25.73
Noncompliance	42	20.39
Defiance	36	17.47
Violence	18	8.74

Measures

Demographic Questionnaire

The 17-item Demographic Questionnaire was created to gain information on a parent's relationship to their child, gender, age, education level, ethnicity, income level, number of years as a parent, and marital status. As well, information on children's gender, age, birth order, ethnicity, number of siblings, and possible formal educational diagnoses was assessed. Parents were asked to select one problem behavior that their child displayed (aggression, tantrum, noncompliance, defiance, and violence) and rate the severity of the problem behavior on a seven-point scale from 1 (a little problematic) to 7 (very problematic).

Behavior Questionnaire

The 16-item Behavior Questionnaire (BQ) is a parent adaptation from the Problem Behavior Questionnaire (PBQ), which is a teacher-based instrument to develop functional hypotheses of problem behavior in general education settings (Lewis, et al., 1994). Though the psychometrics of this questionnaire have not been evaluated, no scale currently developed assesses problem behaviors and its function in general education of children who do not have a diagnosis. The PBQ is widely used and has been shown to generate similar functional hypotheses as other widely used methods (e.g., functional behavioral assessments, functional assessment interview, and antecedent-behavior-consequence observation) (Lewis, et al., 2015). The Behavior Questionnaire was used to determine parent beliefs about the function of the problem behavior, how they respond to their child's problem behavior, and the general functional hypothesis of the child's behavior based on the parent's perception. Each item is rated on a seven-point scale from 0 (Never) to 6 (Always). There are six possible functions of behavior (Attention from Peers, Escape from Peers, Attention from Adults, Escape from Adults, Tangible, and Setting Events). Possible functional hypotheses for a child's behavior was determined by having two or more items within the functional category that were endorsed as a three or higher. The parent was also prompted to indicate the frequency from 1 (not often) to 5 (very often) in which they engage in specific interventions to respond to their child's problem behaviors (attention based, escape based, setting based, and item based). Each parent was provided with 8 options (2 for each type of response) to assess fidelity and accuracy in their responses. The intervention choices came from peer-reviewed research articles found in the literature and textbooks related to appropriate interventions that

serve different behavior functions. The interventions were approved by three experts in functional behavior assessment and behavior therapy to ensure accuracy of the information. Experts were faculty at a large metropolitan University who teach within a doctoral program in school psychology and clinical psychology program who teach courses on functional behavior assessment or behavior therapy, and who have published three articles in this area of focus.

Knowledge of Behavioral Principles as Applied to Children (KBPAC)

The 10-item KBPAC multiple choice questionnaire (Furtkamp, et al., 1982) has been developed based on the original 50-item KBPAC (O'Dell, et al., 1979) to decrease administration time. The KBPAC evaluates familiarity with behaviorally-oriented strategies as applied to children. Each item presents scenarios of common child behaviors to which the respondent is to choose the best technique to address the child's actions (i.e., reinforcement, punishment, schedules, shaping, differential attention, extinction, and monitoring behavior). The authors were careful to use general language and avoid the use of behavioral vocabulary in this measure. A 10- and 25- item version of this measure was developed (Furtkamp, et al., 1982) to decrease administration time. The current study used the 10-item KBPAC. An example item from this measure is: "A child often cries over any small matter that bothers her. How should her parents react to best reduce her crying?". By reducing the test to 10 items, little or no reliability was lost, and the estimated reliabilities exceeded those of the 25-item test. The 10-item version of the KBPAC has demonstrated psychometric data similar to the 50-item KBPAC.

In addition, a range of internal consistencies has been reported for this version and was found to be satisfactory for further use; the Kuder-Richardson internal consistency

reliability was estimated to be 0.74 and the standard error of measurement was estimated to be 1.35 (Furtkamp, et al., 1982). Although the questionnaire dates from 1982, it is used highly in research to examine the effectiveness of certain interventions in significantly increasing participants' knowledge of behavioral principles (Macdonald & Turner, 2005; McMahon & Forehand, 2005; Tiano & McNeil, 2014).

Function of Behavior Vignettes

Eight vignettes were presented, two for each of the four different functions of child behavior, to which the respondent determined which function of behavior matched the correct vignette (Attention, Escape, Tangible, and Setting Events). These vignettes came from peer-reviewed research articles found in the literature related to the function of a problem behavior and were adapted from the Behavior Support Plan Knowledge Test developed by Benazzi and colleagues (2003), which has been widely used and adapted by researchers (Loman, et al., 2013; Strickland-Cohen & Horner, 2015; Strickland-Cohen, et al., 2016). Prior to the study, the questionnaire was expert-reviewed for content validity. All vignettes were shown to three experts, at a large metropolitan University who teach courses on functional behavior assessment or behavior therapy, in functional behavior assessment to ensure accuracy of the information and identify the problem behavior function. The number of accurately identified vignettes, by the parents, were divided by the number of total vignettes (8) in order to determine the percentage of each parent's knowledge of function of behavior with a higher percentage reflecting greater knowledge.

Chapter V

Results

All data were analyzed using IBM SPSS Statistics software version 25. The first section reviews the evaluation of the eleven hypotheses of the study. The second section provides the exploratory analyses conducted to examine the relationship between type of behavior a child displays and parent income level as well as the level of severity a child's behavior was rated and parent income level. The results review data amongst 338 parents of children with problem behaviors and 206 children whose behaviors were rated by parents as greater than or equal to 5 indicating significantly problematic behaviors. Specific focus on children with significantly problematic behaviors were examined when research questions addressed problem behaviors. Analyses provide insight on the predictor variables that play a role in parent knowledge of behavioral principles and function of behavior. Impact of parent knowledge of behavioral principles and function of behavior on identification of child function of behavior, behavioral severity ratings and selection of a function-based intervention are assessed. Analyses consisted of Pearson r correlations, binary logistic regressions, chi-square test of independence, and point-biserial correlations. The traditional .05 and .01 criterion of statistical significance were employed to the analyses.

Hypotheses

Knowledge of Function and Knowledge of Behavioral Principles

The first hypothesis predicted a significant positive relationship between parent knowledge of behavioral principles, as measured on the KBPAC, and knowledge of function of behavior, as measured on the FBV. As reported in Table 3, a Pearson r

correlation was calculated to examine whether there is a relationship between Knowledge of Function and Knowledge of Behavioral Principles. The total score for the Function Vignettes and KBPAC were significantly positively correlated, $r(338) = .178, p < .01$, indicating that, as parent knowledge of behavioral principles increases, there is an increase in knowledge of function of behavior. Therefore, this hypothesis was supported.

Table 3

Correlations Between Measures of Knowledge and Demographic Variables

Measures/Variables	1	2	3	4	5
1. KBPAC Score	-				
2. Function Score	.178**	-			
3. Severity Level	.063	.064	-		
4. Education Level	.124*	-.211**	.080	-	
5. Income Level	.083	.176**	.156**	.270**	-

**Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

Knowledge of Behavioral Principles and Function of Behavior Accuracy

The second hypothesis predicted that parent knowledge of behavioral principles, as measured on the KBPAC, will positively predict a parent's ability to identify the function of their child's problem behavior similarly to the function identified on the BQ. A binary logistic regression analysis was conducted to investigate whether there is a relationship between Knowledge of Behavior and Function of Behavior Accuracy. The predictor variable, Knowledge of Behavior, was tested a priori to verify there was no violation of the assumption of the linearity of the logit (Table 4). The predictor variable,

Knowledge of Behavior, in the logistic regression analysis was found to contribute to the model. The unstandardized Beta weight for the predictor variable: $B = -.06$, $SE = .09$, $Wald = .43$, $df = 1$, $p < .05$. The estimated odds ratio favored that for every one-unit increase in Knowledge of Function, the likelihood of parents' report Function of Behavior Accuracy increases by .94% [$Exp(B) = .94$]. Therefore, this hypothesis was supported.

Table 4

Binary Logistic Regression Predicting Likelihood of Function of Behavior

Accuracy

<i>Function of Behavior Accuracy</i>	<i>B</i>	<i>SE</i>	<i>Wald</i>	<i>df</i>	<i>p (Sig.)</i>	<i>Exp(B)</i>
Knowledge of Behavior	-.06	.09	.43	1	< .05	.94
Knowledge of Function	-.27	.10	7.04	1	< .01	.77
Parenting Experience	-.02	.03	.50	1	.48	1.99

Knowledge of Function and Function of Behavior Accuracy

The third hypothesis predicted that parent knowledge of function of behavior, as measured on the FBV, will positively predict a parent's ability to identify the function of their child's problem behavior similarly to the BQ. A binary logistic regression analysis was conducted to investigate whether there is a relationship between Knowledge of Function and Function of Behavior Accuracy. The predictor variable, Knowledge of Function, was tested a priori to verify there was no violation of the assumption of the linearity of the logit. The predictor variable, Knowledge of Function, in the logistic regression analysis was found to contribute to the model (Table 4). The unstandardized

Beta weight for the predictor variable: $B = -.27$, $SE = .10$, $Wald = 7.04$, $df = 1$, $p < .01$.

The estimated odds ratio favored that for every one-unit increase in Knowledge of Function, the likelihood of parents' report Function of Behavior Accuracy increases by .76% [$Exp(B) = .76$]. Therefore, this hypothesis was supported.

Knowledge of Behavioral Principles and Function-Based Intervention

The fourth hypothesis predicted that parent knowledge of behavioral principles, as measured on the KBPAC, will predict a parent's ability to select a function-based intervention for their child's problem behavior. A binary logistic regression analysis was conducted to investigate whether there is a relationship between Knowledge of Behavior and Function-Based Intervention (Table 5). The predictor variable, Knowledge of Behavior, was tested a priori to verify there was no violation of the assumption of the linearity of the logit. The predictor variable, Knowledge of Function, in the logistic regression analysis was not found to contribute to the model. Therefore, this hypothesis was not supported.

Knowledge of Behavioral Principles and Function and Behavior Severity Level

The fifth hypothesis predicted a significant negative relationship between Knowledge of Behavioral Principles and Behavior Severity Level, as well as a negative correlation between Knowledge of Function and Behavior Severity Level. Pearson r correlations, as reported in Table 3, were calculated to investigate whether there is a relationship between knowledge of behavioral principles and function of behavior and behavior severity level.

- a. The total score for the KBPAC and Behavior Severity Level were not significantly correlated, $r(338) = .063$, $p = .254$.

- b. The total score for the Function Vignettes and Behavior Severity Level were not significantly correlated, $r(338) = -.064, p = .257$.

Both total scores for KBPAC and Function Vignettes were not significantly correlated with Behavior Severity Level. Therefore, this hypothesis was not supported.

Parenting Experience and Function of Behavior Accuracy

The sixth hypothesis predicted that greater years of parenting experience will predict a parent’s ability to identify the function of their child’s problem behavior similarly to the function identified on the BQ. A binary logistic regression analysis was conducted to investigate whether there is a relationship between Parenting Experience and Function of Behavior Accuracy (Table 4). The predictor variable, Parenting Experience, was tested a priori to verify there was no violation of the assumption of the linearity of the logit. The predictor variable, Parenting Experience, in the logistic regression analysis was not found to contribute to the model. Therefore, this hypothesis was not supported.

Table 5

Binary Logistic Regression Predicting Likelihood of Function-Based Intervention

<i>Function-Based Intervention</i>	<i>B</i>	<i>SE</i>	<i>Wald</i>	<i>df</i>	<i>p (Sig.)</i>	<i>Exp(B)</i>
Knowledge of Behavior	.04	.09	1.14	1	.71	1.04

Number of Children and Function of Behavior Accuracy

The seventh hypothesis predicted that parents who have more than one child will be able to identify the function of their child’s behavior more similarly to the function identified on the BQ than parents who have only one child. A chi-square test of

independence was performed to examine the relationship between Number of Children and Function of Behavior Accuracy (Table 6). The relationship between the two variables were not found significant, $X^2 (1, N = 206) = .02, p = .89$. These results suggest that parents who have one child and parents who have more than one child did not significantly differ in their ability to identify the function of their child's behavior. Therefore, this hypothesis was not supported.

Child Birth Order and Function of Behavior Accuracy

The eighth hypothesis predicted that, of parents who have more than one child, parents who completed all measures about their youngest child's behavior would identify the function of their child's behavior more consistent to the function identified on the BQ than parents who identified their oldest child. A chi-square test of independence was performed to examine the relationship between Child Birth Order and Function of Behavior Accuracy (Table 6). The relationship between the two variables were not found significant, $X^2 (2, N = 206) = .60, p = .74$. These results suggest that parents who reported on their youngest child and parents who reported on their oldest child did not significantly differ in their ability to identify the function of their child's behavior. Therefore, this hypothesis was not supported.

Income Level, Knowledge of Behavioral Principles, Knowledge of Function, and Behavior Severity Level

The ninth hypothesis predicted a positive relationship between Income Level and Knowledge of Behavioral Principles and Function, and Behavior Severity Level. Pearson r correlations, as reported in Table 3, were calculated to investigate whether there is a

relationship amongst Income Level with Knowledge of Behavioral Principles, Knowledge of Function, and Behavior Severity Level.

- a. Parent Income Level and total score for the KBPAC were not significantly correlated, $r(338) = .083, p = .133$.
- b. Parent Income Level and total score for the Function Vignettes were significantly correlated, $r(338) = .176, p < .01$, indicating that as parent income level increases, there is an increase in knowledge of function of behavior.
- c. Parent Income Level and Behavior Severity Level were significantly correlated, $r(338) = .156, p < .01$, indicating as parent income level increases, there is an increase in parent problem behavior severity rating.

Although parent income level was positively correlated with knowledge of function of behavior and an increase in perceived behavior severity, it is not correlated with knowledge of behavioral principles. Therefore, this hypothesis was partially supported.

Table 6

Chi-Square Test of Function of Behavior Accuracy by Number of Children and Child Birth Order

<i>Function of Behavior Accuracy</i>	<i>Value</i>	<i>df</i>	<i>Asymp. Sig.</i> <i>(2-sided)</i>
Number of Children	.02	1	.89
Child Birth Order	.61	2	.74

Education Level, Knowledge of Behavioral Principles, Knowledge of Function, and Behavior Severity Level

The tenth hypothesis predicted a positive relationship between parent Education Level and parent Knowledge of Behavioral principles and Function and a negative relationship between Education Level and Behavior Severity Level. Pearson r correlations, as reported in Table 3, were calculated to investigate whether there is a relationship amongst education level with knowledge of behavioral principles, function of behavior, and behavior severity level.

- a. Parent Education Level and total score for the KBPAC were significantly correlated, $r(338) = .124, p < .05$, indicating that as parent education level increases, there is an increase in knowledge of behavioral principles.
- b. Parent Education Level and total score for the Function Vignettes were significantly correlated, $r(338) = -.211, p < .001$, indicating that as parent education level increases, there is a decrease in knowledge of function of behavior.
- c. Parent Education Level and Behavior Severity Level were not significantly correlated, $r(338) = .080, p = .147$.

Although parent education level was positively correlated with knowledge of behavior principles, it was negatively correlated with knowledge of function of behavior. Moreover, parent education level was not significantly correlated with behavior severity level. Therefore, this hypothesis was partially supported.

Income Level and Aggression Behavior Type

The eleventh hypothesis predicted a significant negative association between parent income level and parents who identify their children as displaying significantly problematic aggression . A point-biserial correlation was calculated to investigate whether there is a relationship between Income Level and Aggression Behavior Type. Parent Income Level and selection of Aggression Behavior Type were not significantly correlated, $r_{pb}(206) = -.121, p = .084$. Therefore, this hypothesis was not supported.

Exploratory Analyses

After review of hypotheses, a few exploratory analyses were conducted to evaluate the relationship between income level and tantrum behavior type and relationship between income level and parent ratings of severe behaviors.

Income Level and Significantly Problematic Behavior Rating

An additional Pearson r correlation was calculated to investigate whether there is a relationship between parent income level and their rating of significantly problematic behaviors. Parent Income Level and Significantly Problematic Behavior Rating were significantly correlated, $r(206) = .153, p < .05$, indicating that as parent income level increases, there is an increase in their rating of significantly problematic behaviors.

Income Level and Tantrum Behavior Type

An additional point-biserial correlation was calculated to investigate whether there is a significant association between parent income level and parents who identify their children as displaying significantly problematic tantrum. Parent Income Level and selection of Tantrum Behavior Type were significantly correlated, $r_{pb}(206) = .188, p <$

.01, indicating that as parent income level increases, there is an increase in selection of tantrum behavior type. Therefore, this hypothesis was supported.

Chapter VI

Discussion

The purpose of this study was to examine the relationship between knowledge of behavioral principles and knowledge of function of behavior among parents of preschoolers. Moreover, the study explored the impact knowledge has on a parent's ability to identify the function of their child's problem behavior and, thus, select a function-based intervention. Furthermore, the research examined whether a number of parent variables (income level, education level, parent's age, child's age, and years of parenting) could predict parent level of knowledge of behavioral principles and function of behavior. This section reviews the hypotheses that were tested, significant findings from the study, and relates them to extant literature. The findings of the study extend findings from Fettig and Ostrosky (2011), Morawska and colleagues (2009), Shayne and Miltenberger (2013), and Tiano and McNeil (2014) in identifying a positive relationship between parent knowledge of behavioral principles and knowledge of function. Moreover, the research provides evidence for positive relationships among predictor variables (income level and education), parent knowledge of behavior and function, and children's severity level. More importantly, as previous studies looked at parents' knowledge regarding function of behavior more generally, this study extends research as it suggests a relationship between parent knowledge of behavior and their ability to identify their child's function of behavior specifically. Study limitations and implications for future research and professional practice are discussed.

Relationship between Parent Knowledge of Behavior and Function

Previous research has focused on the impact of parent knowledge of behavioral principles (Tiano & McNeil, 2014) and parent knowledge of function of behavior (Friedman, 2010) on their understanding of their child's problem behavior, separately. Adding to the scarcity of research, this study examined the relationship between parent knowledge of behavioral principles, as measured on the KBPAC, and knowledge of function of behavior, as measured on the FBV, and found a clear link between the two variables. The current investigation found a significant positive correlation between parent knowledge of behavioral principles and knowledge of function of behavior. Pearson r correlations indicate that parents who scored higher on the KBPAC had significantly higher total scores on the FBV. Consistent with predictions, parents who have greater knowledge of behavioral principles will possess greater knowledge of function of behavior. The findings from this study adds strength to previous studies suggesting that knowledge of behavior principles coupled with knowledge of functional behavior assessments can be effective in decreasing problem behaviors (Shayne & Miltenberger, 2013; Von Schulz, et al., 2018).

The Role of Parent Knowledge of Function

Parent Knowledge of Function and Function of Behavior Accuracy

Based on findings from Fettig and Ostrosky (2011) indicating that greater parent knowledge of functional assessment was linked to greater knowledge of functional assessment-based strategies, it was hypothesized that greater parent knowledge of function of behavior, as measured on the FBV, would positively predict a parent's ability to identify the function of their child's problem behavior similarly to the BQ. In line with

the hypothesized association, data suggests a direct link between parent knowledge of function of behavior, as measured on the FBV, and their ability to identify the function similarly to the function identified on the BQ. This study provides evidence that knowledge of function on its own can predict a parent's ability to identify the function of their child's problem behavior (Fettig & Ostrosky, 2011). Similarly, Shayne and Miltenberger (2013) found that greater knowledge of function identification behavior assessments and functional assessment-based strategies are linked to better identification of behavior function. Friedman's (2010) research can provide insight on the relationship between the two variables as she found that parent knowledge of functional behavior assessments improves understanding of problem behavior. Functional behavior assessments include knowledge of function of behavior, ability to develop hypotheses, and identify functional relations among antecedents, behaviors, and consequences (ABCs). With this information, it can be concluded that knowledge of function of behavior incorporates the ability to identify the ABCs surrounding their child's behavior and draw hypotheses based on the data they collect, which results in their ability to identify the function of their child's behavior similarly to the function identified on a functional behavior assessment completed by the parent.

The Role of Parent Knowledge of Behavior

Parent Knowledge of Behavior and Function of Behavior Accuracy

Adding to our findings, data also suggests a direct link between parent knowledge of behavioral principles, as measured on the KBPAC, and their identification of the function of their child's problem behavior similarly to the BQ. Tiano and McNeil (2014) found that greater knowledge of behavioral principles influences a parent's ability to

handle child problem behaviors and thus improving the behavior. Our study aligns with the findings of Tiano and McNeil (2014), as evidence suggests that greater knowledge of behavioral principles influences a parent's ability to assess children's problem behaviors, generate hypotheses about the behavior, and identify the function of their child's behavior.

Parent Knowledge of Behavior and Behavior Severity Level

Interestingly, Tiano and McNeil (2014) found contrary results suggesting that parents who had greater knowledge of behavior reported their child to display less severe behaviors, which they indicated was attributed to a parent having knowledge of how to handle the problem behavior. Contrary to their findings, our data did not find greater knowledge of behavioral principles or function of behavior, as measured on the KBPAC and FBV, to be related to reports of their child's behavior severity level. Perhaps the reason for the conflicting results can be attributed to a difference in measures used to assess behavior severity. Unlike the current study that asked parents to rate their child's behavior severity level, Tiano and McNeil (2014) utilized the Eyberg Child Behavior Inventory to gather information on whether the parent perceives the child's behavior as problematic and applies a different clinical cutoff score than the one used in this study.

Parent Knowledge of Behavior and Function-Based Intervention

In reviewing the KBPAC, the questionnaire includes simple and specific scenarios of common problem behaviors (O'Dell, et al., 1979). Higher scores on the KBPAC indicate more familiarity with behaviorally-oriented strategies as applied to children. In line with other researchers, it would be expected that knowledge of behavioral strategies would translate to better ability to intervene with problem behaviors

(Shayne & Miltenberger, 2013; Tiano & McNeil, 2014). Contrary to previous findings, our study did not find knowledge of behavioral principles to be linked to a parent's ability to select a function-based intervention that matches the problem behavior function identified on the BQ. Perhaps the reason for the discrepancy of results can be attributed to the lack of items on the KBPAC that addresses function-based interventions (e.g., understanding whether parents would select using the behavioral strategy of 'ignoring a behavior' for a behavior that functions on 'attention'). Moreover, the scenarios provided to parents were not complex in nature, meaning they did not take into account the many variables that can occur in real time that can be a factor impacting children's behaviors and, therefore, influence the selection in a function-based intervention. Findings from this study supports Tiano and McNeil's (2014) suggestion that parents would benefit from receiving training in increasing not only their use of behavioral strategies but also their understanding of the principles behind the techniques to understand how they are effective in addressing a specific function of behavior.

The Role of Demographic Variables

Income Level and Education Level on Knowledge of Behavior and Function

Given the significance that knowledge plays on a parent's ability to identify the function of their child's behavior, it is important to look at the variables that play a role in increased knowledge. Consistent with the works of Morawska and colleagues (2009) and Tiano and McNeil (2014), our research found that higher parent income levels have a positive impact on greater parent knowledge of function of behavior, as measured on the FBV. Moreover, the research linked a positive relationship between higher education levels and greater knowledge of behavioral principles and function of behavior. With

these findings, it appears parents who have lower income levels and education levels would benefit from receiving more information regarding knowledge of behavioral principles and function of behavior. This would help them better understand their child's problem behavior, as these parents tend to display less knowledge of behavioral principles and function of behavior and, therefore, may not be able to identify the function of their child's problem behavior.

Income Level on Behavior Severity Level and Problematic Behavior Rating

Previous research has suggested that preschool-aged children whose parents report lower income levels typically display more problem behaviors (Morawska, et al., 2009; Tiano & McNeil, 2014). Based on these findings, it was hypothesized that children who are identified by parents as displaying significantly problematic behavior would be typically reported by parents who report lower income levels. However, the findings showed that parents with higher income levels perceived the severity of their child's behavior much higher than parents with lower income levels and, thus, children who were identified as displaying significantly problematic behaviors (rating of 5 or higher) were typically by parents of higher income levels. Moreover, of children who were identified as displaying significantly problematic behaviors, children who were rated on the more extreme ended were usually children of parents who reported higher income levels. The discrepancy in results may be attributed to a difference in methodology of identification of problem behaviors in this study in comparison to previous studies. Tiano and McNeil (2014) utilized the Eyberg Child Behavior Inventory (ECBI) to assess the intensity of the child's behavior based on parent report on the frequency of the behavior. In this study, problematic behaviors were assessed on one item in which parents were

asked to rate the severity of the behavior. Moreover, differences in results may be attributed to parent involvement in their child's development and education. Ansari and Gershoff (2016) suggested that parents with lower income levels tend not to be highly involved in their child's education and, therefore, may not be as aware of their child's problem behaviors as much as a parent with higher income levels. This information suggests that an increase in lower income parents' participation in their child's education and functioning would also increase awareness of their child's problem behavior, and, consequently, influence their decision to intervene with their child's behavior. Studies have suggested that high parental involvement is linked to increased understanding of child problem behaviors and decreased child problem behaviors within preschools (Ansari & Gershoff, 2016).

Income Level and Behavior Type

Based on findings from Mazza and colleagues (2017) indicating that children from lower socioeconomic backgrounds exhibit higher levels of physical aggression, it was hypothesized that lower parent income level would be related to children who display significantly problematic aggression behaviors. Contrary to the hypothesized association, data does not support the idea that income levels were related to whether a child was identified to display aggression. Although the point-biserial correlation did not support a significant relationship between income level and aggression behavior type, the lack of significance may have been due to a small effect size. Perhaps the statistical significance would change with an increase in sample size.

Further exploratory analyses extend Maria and colleagues' (2017) findings as this study found evidence that parent income level was related to whether a child was

identified as displaying significantly problematic tantrum behavior. Specifically, parents who identified their child to display tantrum behaviors also reported higher income levels. This suggests that parents who earn a higher income level typically identify their child as displaying tantrum behaviors.

Child Birth Order and Number of Children

Based on the findings from Tiano and McNeil (2014) indicating that parents who have more children may display more abilities to identify the function of their child's behavior and greater knowledge of behavioral principles, it was hypothesized that parents who have more than one child can identify the function of their child's behavior better than a parent who has only one child. Contrary to the hypothesized association, data does not suggest a direct link between number of children a parent has and their ability to identify the function of their child's behavior similarly to the BQ. Moreover, our study did not find a significant difference between parents who reported on the behavior of their youngest child and parents who reported on the behavior of their oldest child in their ability to identify the function of their child's behavior similarly to the BQ.

Future Directions

Additional research is needed in order to explore how parent knowledge of behavioral principles and behavior function compare to an FBA. Based on the literature review conducted, most studies that focused on parent knowledge of behavioral principles examined comparisons between each parent and variables impacting knowledge rather than how parents' knowledge compared to an FBA. Future studies may seek to replicate this study with the inclusion of an FBA conducted by a trained school psychologist or the PBQ completed by a trained school psychologist within the home

environment for comparison. This would provide information on how parents' knowledge of problem behaviors compares to that of an observational effort to determine the function of a behavior and whether there are any variables that may predict their ability to identify the function of their child's problem behavior similarly to an FBA conducted.

With the use of social media outlets and MTurk, this study included international parents and lacked a vast diversity in socioeconomic status. Future studies could benefit from conducting their study in preschools and comparing parent knowledge between parents whose children attend lower income preschools (such as Headstart and School Readiness programs) and higher income preschools.

Contrary to what was hypothesized due to previous research, the study did not find parent knowledge of behavior to be linked to a parent's ability to select a function-based intervention to their child's problem behavior. We discussed that the reason for the nonexistent relationship may be due to the lack of items on the KBPAC focused on problem behavior functions. Moreover, the questionnaires provided to parents included simple and specific problem behavior scenarios that did not explore the different variables that can play in real life situations, such as fatigue, task difficulty, overstimulation, or medication side effects. For example, a child may appear to display a problem behavior that functions to escape. However, if that child only displays the behavior during a specific task, it may be due to task difficulty and the function of the behavior may correctly be identified as a setting event. Future replications of this study would benefit from including more complex scenarios to assess a parent's ability to distinguish the function of a problem behavior amongst distracting variables.

Limitations

One of the greatest limitations of the current study comes from the reliance of one parent's perception of their child's problem behavior. The study would have benefited from the inclusion of multiple informants to obtain a comprehensive picture of the child's behavior. If this study was conducted in a school, an FBA could have been conducted by a trained school psychologist to obtain a more accurate depiction on whether parents can identify the function of their child's behavior similarly to an FBA conducted by a trained school psychologist.

Another limitation of the current study was the inclusion of international parents within the data collection, which prevented data from being specific to parents in the United States which are assumed to be more homogeneous in nature. A disadvantage of implementing an internet-based research is the inability to collect a truly random sample of the U.S. population (Rice, et al., 2017). Due to the addition of international parents, it is difficult to determine whether education level plays a significant role. There is a difference between parents in the type of education they received and child rearing skills they develop due to geographical location. However, exploratory analyses were conducted to compare data from parents within the United States and outside of the United States, and analyses showed that data was similar across subjects. Though the sample was collected using social media outlets and MTurk and was suggested to reach a diverse population (Buhrmester, et al., 2011; Paolacci & Chandler, 2014), a majority of the sample were White and Asian parents who have their Bachelor's and Master's degrees and have income levels typically in the \$30,000 to \$74,999 range. There was not

a vast dispersity among participants in terms of education level, ethnic and racial background, and income level.

Parents were provided with three choices to select their child's age (3, 4, and 5 years old). The use of the three selections limited the research from taking into account differences in children based on chronological age. Research shows that preschool-aged children undergo significant developmental changes and expansive psychological growth within months, which has shown to affect children's outcomes (Brown & Jernigan, 2012; Skibbe, et al., 2011). Skibbe et al. (2011) found that a child's chronological age can predict self-regulation outcomes. Specifically, they found that, although children were within the same age year, there was a difference in outcomes due to a difference in months. Within the realm of this research, it begs the question whether a child who is 4 years and 11 months old would have different outcomes than a child who is 4 years and 2 months old. Future research would benefit from assessing children's chronological age to take into account rapid development changes.

Chapter VII

Implications of the Results for Practice

A significant number of preschool-aged children in the United States display early onset of externalizing problem behaviors (CAHMI, 2018). If problem behaviors go undetected, they can have a negative impact on a child's academics, relationships, and, consequently, adolescent and adult outcomes (Institute of Medicine, 2009; Staff, et al., 2015). Parents, in particular, are essential in the identification and alleviation of their child's problem behavior (Ansari & Gershoff, 2016; Ellingson, et al., 2004; Tichovolosky, et al., 2013). However, only a small percentage of parents have consulted with medical professionals due to the overly elevated severity of the behaviors (Ellingson, et al., 2004). There is an awareness in research regarding barriers to parent identification of behaviors, effective tools used for identification of behaviors, and effective strategies to reduce behaviors. However, research regarding predictor variables of parent knowledge of behavior is limited and research regarding the relationship between parent knowledge of behavior principles and knowledge of functional behavior assessments is rare. Thus, further research in these areas were warranted in understanding the variables that contribute to how parents perceive problem behaviors and in what way their knowledge of behavior impacts their understanding of the function of their child's problem behavior.

The current study focuses on whether parent knowledge of behavior has an influence on whether a parent is able to identify the function of their child's problem behavior similarly to a functional assessment behavior questionnaire. Moreover, the research looks at predictor variables (i.e., education level, income level) that contribute to

a parent's knowledge. Data found from this study will improve understanding of problem behaviors and identify areas needed for improvement in parents' child rearing techniques.

The findings from this study adds further evidence that parent knowledge of behavior coupled with knowledge of function can decrease the severity of problem behaviors. Separately, knowledge of behavior and knowledge of function can be directly linked to a parent's ability to identify the function of their child's behavior. Though the findings did not find parent knowledge of behavior to be directly linked to their ability to select an intervention that responds to the function of the behavior, this may be due to difficulty translating knowledge into practice and factoring out all possible variables that impact behavior. Adding to previous research, this study found parents with higher income levels and education levels to have greater knowledge of function of behavior. Moreover, higher education levels were positively linked to greater knowledge of behavioral principles. Collectively, these findings indicate a significance in knowledge of behavioral principles and function in understanding problem behaviors and identifying their function. Parents who have higher income levels and education levels appear to have greater knowledge of behavior and, therefore, are better able to identify the function of their child's behavior. Parents who indicate lower income and education levels tend to display less knowledge of behavior and have greater difficulty identifying the function of their child's behavior. Therefore, it is crucial that these parents receive more information regarding knowledge of behavioral principles and function of behavior as it would benefit them significantly in understanding their child's problem behavior.

Although the findings of this study supported the idea that increased knowledge of behavior would result in a parent's ability to better identify the function of their child's

behavior, the findings are based on one informant's perception of the child's behavior and does not examine the child's behavior from the perception of multiple informants. Additional research is necessary to further explore a parent's ability to identify the function of their child's behavior in a more comprehensive manner by matching the identified function by the parent to a function identified by a trained school psychologist as conducted by an FBA.

The current study has aided in reviewing and extending present research to bolster future research with insight on the level of knowledge parent's may possess on behavior and how their knowledge can play a role in their identification of their child's behavior as it is applied both in clinical and school settings. Previous research on parent understanding of problem behavior has been limited and more studies are necessary to understand the barriers to a parent's ability to alleviate the onset of early problem behaviors and identify areas needed for improvement to better identify the behavior and respond to the function of the identified problem behavior.

Appendix A

Demographic Questionnaire

Many children at different times display types of behaviors that can be thought of as "problematic." Please keep in mind one child in your household, who is between the ages of 3-5 years old, who displays a behavior that you would consider "problematic" as you answer the questions below.

- 1) Please select one of the behaviors below that this child displays that you consider to be the most problematic.
 - Aggression (hostile or violent behavior or attitudes)
 - Tantrum (uncontrolled outburst of anger and frustration)
 - Noncompliance (ignoring or giving excuses to not follow a wish or a command)
 - Defiance (challenging and openly refusing to follow a wish or a command)
 - Violence (physical force purposely to hurt or damage)
- 2) How problematic would you rate this behavior? [1 (a little problematic) – 7 (very problematic)]: _____
- 3) What is your relationship to this child?
 - Mother
 - Father
 - Aunt/Uncle
 - Grandparent
 - Sibling
 - Other: _____
- 4) Please identify your gender.
 - Male
 - Female
- 5) Please identify this child's gender.
 - Male
 - Female
- 6) What is your age?
 - 18 to 29 years old
 - 30 to 49 years old
 - 50 to 64 years old
 - Above 65
- 7) You are being asked questions about your child who is presently between 3 and 5 years of age. What is this child's age?
 - 3 years old

- 4 years old
- 5 years old

8) How many siblings does this child have?

- 0
- 1
- 2
- 3-4
- 5 or more

9) In what birth order position was this child born?

- Only child
- First child
- Second child
- Third child
- Fourth child
- Other: _____

10) How many years have you been a parent? _____

11) How would you identify your ethnicity?

- White
- Black or African American
- Hispanic
- American Indian or Alaska Native
- Asian
- Native Hawaiian or Other Pacific Islander
- Multiracial
- Would rather not say
- Other (please specify): _____

12) How would you identify this child's ethnicity?

- White
- Black or African American
- Hispanic
- American Indian or Alaska Native
- Asian
- Native Hawaiian or Other Pacific Islander
- Multiracial
- Would rather not say
- Other (please specify): _____

13) What is the highest level of education that you have completed?

- Some high school
- High school graduate or equivalent (e.g., GED)
- Some college, no degree
- Associate degree (e.g., AA, AS)
- Bachelor's degree (e.g., BA, BS)
- Master's degree (e.g., MA, MS, MEd)
- Professional degree (e.g., MD, DDS, DVM)
- Doctorate (e.g., PhD, PsyD, EdD)

14) What is your current marital/relationship status?

- Single (never married)
- In a domestic partnership
- Married
- Divorced/Separated
- Widowed
- Would rather not say

15) What is your total annual income?

- Unemployed
- Less than \$29,999
- \$30,000 to \$49,999
- \$50,000 to \$74,999
- \$75,000 to \$99,999
- \$100,000 to \$499,999
- \$500,000 or more

16) Does this child have a formal educational classification or diagnosis?

- Yes
- No
 - a. Which of the following formal educational classifications or diagnosis has this child received?
 - Autism
 - Attention-Deficit/Hyperactivity Disorder (ADHD)
 - Emotional Disturbance
 - Intellectual Disability
 - Specific Learning Disability
 - Conduct Disorder
 - Oppositional Defiance Disorder

Appendix B

Behavior Questionnaire

Below are different reasons for why a child may act out with a problem behavior. What do you believe is the major reason this child engages in their problem behavior?

- Attention (to get some form of social attention or reaction)
- Escape (to get away or avoid something)
- Tangible (to get an item or desired activity)
- Setting event (child's behavior happens when in a specific setting)

Below are different ways parents may respond to their child's behavior. Please rate (on a scale of 0 to 5) how often you use each of the specific strategies below to respond to this child's problem behavior?

- _____ Compliment your child when they display a positive behavior
- _____ Give your child a reward when he/she engages in an activity that he/she does not like
- _____ Give your child a different option that they may enjoy
- _____ Ignore your child when they act with the problem behavior
- _____ Remind your child of the positive behavior you want him/her to display
- _____ Lessen or remove situations that can cause the problem behavior to occur
- _____ Give the item your child wants when the problem behavior has not happened
- _____ Make enjoyable activities or items available for your child

DIRECTIONS: Keeping in mind a typical episode of this behavior, circle the frequency at which each of the following statements are true.

(PERCENT OF THE TIME)

	Never	10%	25%	50%	75%	90%	Always
1. Does the behavior occur and persist when you make a request to perform a task?	0	1	2	3	4	5	6
2. When the behavior occurs do you redirect your child to get back to task or follow rules?	0	1	2	3	4	5	6
3. Is the behavior more likely to occur when told that he/she cannot do something he/she wanted to do?	0	1	2	3	4	5	6

4. During a conflict with peers, if your child engages in the behavior, do peers leave he/she alone?	0	1	2	3	4	5	6
5. When the behavior occurs, do peers verbally respond or laugh at he/she?	0	1	2	3	4	5	6
6. Is the behavior more likely to occur following a conflict outside of the home?	0	1	2	3	4	5	6
7. Does the behavior occur to get your attention when you are with another child?	0	1	2	3	4	5	6
8. Does the behavior occur in the presence of specific children?	0	1	2	3	4	5	6
9. Is the behavior more likely to continue to occur throughout the day following an earlier episode?	0	1	2	3	4	5	6
10. Will the child engage in the behavior if the child is told he/she cannot have a preferred item or activity?	0	1	2	3	4	5	6
11. Does the behavior occur during specific activities?	0	1	2	3	4	5	6
12. Does the behavior stop when other children stop interacting with the child?	0	1	2	3	4	5	6
13. Does the behavior occur when children are attending to other children?	0	1	2	3	4	5	6
14. If the child engages in the behavior, do you provide one-on-one instruction to get the child back on-task?	0	1	2	3	4	5	6

15. Will the child stop doing the behavior if you stop making requests or end an activity?	0	1	2	3	4	5	6
16. If the child engages in the behavior, do children stop interacting with the child?	0	1	2	3	4	5	6
17. Is the behavior more likely to occur following unscheduled events or disruptions in home routines?	0	1	2	3	4	5	6
18. Is the behavior likely to occur if you take away a preferred item or activity?	0	1	2	3	4	5	6

Appendix C

Knowledge of Behavior as Applied to Children (KBPAC) Questionnaire

Every parent has their own strategies for parenting and responding to their child's behavior. Please answer the questions below thinking of the best way to deal with each of the typical child behaviors for a 3-5 year old child.

- 1) A child begins to whine and cry when his parent explains why he cannot go outside. How should the parent react?
 - a. Ask the child why going outside is so important to him
 - b. Explain that it is a parent's right to make such decisions
 - c. Explain again why he should not go outside
 - d. Ignore the whining and crying

- 2) Which of the following is the most important for parents in controlling their child's behavior?
 - a. The rules the parents make about behavior
 - b. The parents' understanding of the child's feelings
 - c. The behaviors to which the parents attend
 - d. Being strict, but also warm and gentle

- 3) If punishment is used for a behavior, such as playing football in the house, which type is probably the best to use?
 - a. Make the child do extra homework
 - b. Clearly express your disapproval
 - c. Remove the child to a boring situation each time
 - d. A reasonable spanking

- 4) Parents who use lots of rewards for good behavior and few punishments will probably tend to have children who:
 - a. Do not understand discipline
 - b. Will not cooperate unless that are "paid"
 - c. Take advantage of their parents
 - d. Are well-behaved and cooperative

- 5) A boy loves football. What is most likely to happen if, each time he is playing nicely with his sister, his father invites him to play football?
 - a. He will always be asking his father to play football
 - b. He will play nicely with his sister more often
 - c. He will be annoyed with his father for interfering with his activities
 - d. He will be encouraged to teach his sister to play football

- 6) If you want your child to say "please" and "thank you" at the table, it is probably most important to:
 - a. Reprimand him when he forgets to say them

- b. Explain why good manners are important
 - c. Remember to compliment him when he remembers to say them
 - d. Praise other members of the family when they use these words
- 7) A father tells a child she cannot go to the store with him because she did not clean her room like she promised. She reacts by shouting, crying, and promising she will clean the room when she gets home. What should the father do?
- a. Ignore her and go to the store
 - b. Take her to the store but make her clean her room when they return
 - c. Calm her down and go help her clean her room together
 - d. Talk to her and find out why she does not take responsibility
- 8) Johnny has just torn up a new magazine. Of the following choices, which is the best way for his mother to discipline him?
- a. Tell him he will be spanked by his father when he gets home
 - b. Punish him then and there
 - c. Explain to Johnny about the wrongness of his action
 - d. Angrily scold Johnny so that he will learn that such an act is bad and upsetting to his mother.
- 9) Which of the following is probably the most important in helping a 3 to 5 year old child to behave in desirable ways?
- a. To teach him the importance of self-discipline
 - b. To help him understand right and wrong
 - c. Providing consistent consequences for his behavior
 - d. Understand his moods and feelings as a unique person
- 10) A baby often screams for several minutes and gets his parents' attention. Which of the following is probably the best way for his parents to reduce his screaming?
- a. If there is nothing physically wrong with the child, ignore his screaming even though the first few times he screams even louder
 - b. Distract the child with something he finds interesting whenever he screams
 - c. Ignore all noises and sounds the child makes
 - d. None of the above. Babies usually have good reasons for screaming

Appendix D

Function of Behavior Vignettes

Please read the following scenarios and select the reason why you believe each child is engaging in the problem behavior:

Scenario 1

When Jacob is asked to do work with a partner or small group, Jacob makes inappropriate comments (e.g., “This is stupid!”), pushes materials off his desk, and refuses to do his work. Why do you believe the child is engaging in this behavior?

- Attention (to get some form of social attention or reaction)
- Escape (to get away or avoid something)
- Tangible (to get an item or access a desired activity)
- Setting Event (behavior occurs when in a specific setting)

Scenario 2

When Jessica walks down the hallways between classes, Jessica shouts curse words and intentionally bumps into peers. This behavior is most likely to happen on the days that Jessica arrives late to school. Why do you believe the child is engaging in this behavior?

- Attention (to get some form of social attention or reaction)
- Escape (to get away or avoid something)
- Tangible (to get an item or access a desired activity)
- Setting Event (behavior occurs when in a specific setting)

Scenario 3

When Audrey is asked to work alone and practice writing her letters, Audrey cries and tears up her papers. Why do you believe the child is engaging in this behavior?

- Attention (to get some form of social attention or reaction)
- Escape (to get away or avoid something)
- Tangible (to get an item or access a desired activity)
- Setting Event (behavior occurs when in a specific setting)

Scenario 4

During independent seatwork, Bobby often talks out, makes inappropriate noises, and makes faces at peers. Mr. Smith has changed Bobby’s seat several times, but Bobby continues to act this way. Why do you believe the child is engaging in this behavior?

- Attention (to get some form of social attention or reaction)
- Escape (to get away or avoid something)
- Tangible (to get an item or access a desired activity)
- Setting Event (behavior occurs when in a specific setting)

Scenario 5

While Billy is waiting in line for the swings on the playground, Billy pushes, steals from, and yells at his peers. Why do you believe the child is engaging in this behavior?

- Attention (to get some form of social attention or reaction)
- Escape (to get away or avoid something)
- Tangible (to get an item or access a desired activity)
- Setting Event (behavior occurs when in a specific setting)

Scenario 6

John engages in a tantrum after finding out that there will be a last minute speaker coming to the class and that circle time will be scheduled for another time during the day.

Why do you believe the child is engaging in this behavior?

- Attention (to get some form of social attention or reaction)
- Escape (to get away or avoid something)
- Tangible (to get an item or access a desired activity)
- Setting Event (behavior occurs when in a specific setting)

Scenario 7

When waiting in the lunch line in the cafeteria, Alex yells at his peers and takes their snacks and lunch money. Why do you believe the child is engaging in this behavior?

- Attention (to get some form of social attention or reaction)
- Escape (to get away or avoid something)
- Tangible (to get an item or access a desired activity)
- Setting Event (behavior occurs when in a specific setting)

Scenario 8

Laura acts out in a tantrum while walking in line after she is told by her teacher that the class will be making an unexpected trip to the library on the way to the cafeteria. Why do you believe the child is engaging in this behavior?

- Attention (to get some form of social attention or reaction)
- Escape (to get away or avoid something)
- Tangible (to get an item or access a desired activity)
- Setting Event (behavior occurs when in a specific setting)

Appendix E

Recruitment Post on Facebook Groups

Want to learn more about why your child may be acting out? Complete this questionnaire about children's behavior and you will be able to access resources on understanding your child's behavior, why the behavior is occurring, and how to decrease the problem behavior. You will also have the opportunity to win one of ten \$25 visa gift cards!

Click the link below:

https://stjohns.az1.qualtrics.com/jfe/form/SV_9SMP9jEtA5X5001

Appendix F
Email Sent to Parents with Responses and Behavior Strategies (Upon Consent)

Thank you for completing the survey! Below you will find the questions and your responses. In addition, you will see the questions and correct answers for the function of behavior quiz and knowledge of behavioral principles quiz.

Here is a link to score your answers on the behavior questionnaire to help understand *why* your child may be engaging in their problem behavior. Please keep in mind that this will not be a definite determination for their behavior, instead it should be considered as a hypothesis for why they may engage in their problem behavior.

http://www.doe.virginia.gov/support/student_conduct/problem_behavior_questionnaire.pdf

Here is a link to a website that provides resources to understand your child's problem behavior more and find strategies that can help. Center for Parent Information & Resources website (<https://www.parentcenterhub.org/behavior-at-home/>)

Knowledge of behavioral principles (questions and correct answers)

1. A child begins to whine and cry when his parent explains why he cannot go outside. How should the parent react?

Correct Answer: Ignore the whining and crying

2. Which of the following is the most important for parents in controlling their child's behavior?

Correct Answer: The behaviors to which the parents attend

3. If punishment is used for a behavior, such as playing football in the house, which type is probably the best to use?

Correct Answer: Remove the child to a boring situation each time

4. Parents who use lots of rewards for good behavior and few punishments will probably tend to have children who:

Correct Answer: Are well-behaved and cooperative

5. A boy loves football. What is most likely to happen if, each time he is playing nicely with his sister, his father invites him to play football?

Correct Answer: He will play nicely with his sister more often

6. If you want your child to say "please" and "thank you" at the table, it is probably most important to:

Correct Answer: Remember to compliment him when he remembers to say them

7. A father tells a child she cannot go to the store with him because she did not clean her room like she promised. She reacts by shouting, crying, and promising she will clean the room when she gets home. What should the father do?

Correct Answer: Ignore her and go to the store

8. Johnny has just torn up a new magazine. Of the following choices, which is the best way for his mother to discipline him?

Correct Answer: Punish him then and there

9. Which of the following is probably the most important in helping a child behave in desirable ways?

Correct Answer: Providing consistent consequences for his behavior

10. A baby often screams for several minutes and gets his parents' attention. Which of the following is probably the best way for his parents to reduce his screaming?

Correct Answer: If there is nothing physically wrong with the child, ignore his screaming even though the first few times he screams even louder

Function of behavior scenarios (questions and correct answers)

Scenario 1

When asked to do work with a partner or small group, Jacob makes inappropriate comments (e.g., "This is stupid!"), pushes materials off his desk, and refuses to do his work. Why do you believe the child is engaging in this behavior?

Correct Answer: Escape (to get away or avoid something)

Scenario 2

When Jessica walks down the hallways between classes, Jessica shouts curse words and intentionally bumps into peers. This behavior is most likely to occur on the days that Jessica arrives late to school. Why do you believe the child is engaging in this behavior?

Correct Answer: Attention (to gain some form of social attention or reaction)

Scenario 3

When Audrey is asked to do independent seat work during math instruction, Audrey cries and tears up her papers. Why do you believe the child is engaging in this behavior?

Correct Answer: Escape (to get away or avoid something)

Scenario 4

During independent seatwork, Bobby often talks out, makes inappropriate noises, and makes faces at peers. Mr. Smith has changed the seating chart several times, but this strategy has not been effective. Why do you believe the child is engaging in this behavior?

Correct Answer: Attention (to gain some form of social attention or reaction)

Scenario 5

On the playground during recess while waiting in line for the swings, Billy pushes, steals from, and is verbally aggressive towards his peers. Why do you believe the child is engaging in this behavior?

Correct Answer: Tangible (to obtain an item or access a desired activity)

Scenario 6

John engages in disruptive behaviors upon finding out that there will be a last minute speaker coming to the class and that circle time will be scheduled for another time during the day. Why do you believe the child is engaging in this behavior?

Correct Answer: Setting Event (behavior occurs when in a specific setting)

Scenario 7

When waiting in the lunch line in the cafeteria, Alex is verbally aggressive towards his peers and takes their snacks and lunch money. Why do you believe the child is engaging in this behavior?

Correct Answer: Tangible (to obtain an item or access a desired activity)

Scenario 8

Laura engages in a tantrum while walking in line after she is told by her teacher that the class will be making an unexpected trip to the library on the way to the cafeteria. Why do you believe the child is engaging in this behavior?

Correct Answer: Setting Event (behavior occurs when in a specific setting)

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