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EFFECTIVE EVIDENCE-BASED STRATEGIES TO MINIMIZE SELF-INJURIOUS BEHAVIORS IN YOUNG CHILDREN WITH AUTISM SPECTRUM DISORDERS: A PRACTICAL MANUAL FOR EDUCATORS

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EFFECTIVE EVIDENCE-BASED STRATEGIES TO MINIMIZE SELF-
INJURIOUS BEHAVIORS IN YOUNG CHILDREN WITH AUTISM SPECTRUM
DISORDERS: A PRACTICAL MANUAL FOR EDUCATORS

A Project
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Science
in
Special Education:
Early Childhood Special Education

by
Ngoc Lan Nguyen
September 2019

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ABSTRACT

Self-injurious behaviors (SIBs) are relatively common in children with autism spectrum disorders (ASD), and many teachers have difficulties dealing with these challenging behaviors. Besides the possibility of causing serious injuries to children with ASD, the frequent occurrences of SIBs can limit their access to academic instruction and peer interactions. The abundance of possible strategies is confusing for teachers to figure out which strategies to use and how to implement them. The purpose of this project was to develop a guiding manual for educators working with children with ASD. The manual presents proactive, evidence-based strategies to help prevent or decrease students' SIBs in the classroom.

ACKNOWLEDGEMENTS

I would like to show my gratitude to my committee chair, Dr. Jemma Kim, for her expert advice and encouragement throughout this project. This project would not have been possible without her patient support. She always makes herself available to answers all my questions and to ensure my project stayed on track. I admire her dedication and her passion for sharing her experience/knowledge to the next generations not only on this project but also on all the courses that she teaches at CSUSB.

Special thanks to Dr. Shannon Sparks, my second reader, for her valuable suggestions and feedbacks. I am grateful to have taken a few courses with Dr. Sparks, who cares so much about her students. She ensures that we walk away from her courses equipped with practical resources to be well prepared for real-world implications.

DEDICATION

I dedicate this project to my children, Kaylyn and Sophie, who continuously teach me about child development. You both have helped me realize my passion for teaching. I love you, and I am very proud to be your mother.

To my husband, Bryan, who has supported me throughout my educational process. Thank you for your unconditionally love, patience, and always being there for me. I could not have gotten this far without you.

Lastly, I want to express my gratitude for God because my faith in him allows me to get through my obstacles and challenges in life. Faith also encourages me to improve myself and strive to make positive impacts on the people around me. I am grateful to have realized many valuable lessons, through the people I meet and the experiences I have, in my journey of life.

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CHAPTER ONE

INTRODUCTION

Statement of the Problem

One of the most difficult problems classroom teachers face is dealing with challenging behaviors, specifically self-injurious behaviors (SIBs), of children with autism spectrum disorders (ASD). Research has shown that SIBs are common problems in children with ASD (Baghdadli, Pascal, Grisi, & Aussilloux, 2003). The data collected from the Autism and Developmental Disabilities Monitoring (ADDM) Network and the Autism Speaks-Autism Treatment Network (AS-ATN) found that 30 percent of 13,167 children with ASD displayed SIBs (Soke et al., 2017). Baghdadli et al. (2003) also revealed approximately half of 222 children with ASD included in their study experienced SIBs. The findings from these studies show a relatively high percentage of SIBs among children with ASD.

SIBs have numerous undesirable effects. Devine (2014) notes that SIBs can cause serious injuries to the individuals, which may result in their hospitalizations or even death. Besides health-related problems, SIBs can also cause negative effects on individuals' quality of life. Durand and Merges (2001) mention that challenging behaviors, such as SIBs, can restrict individuals' access to community participation. Frequent occurrences of SIBs can interfere with students' learning and social development by limiting them from engaging in academic instructions and peer interactions, respectively. Furthermore,

observing students who engage in SIBs can bring extreme frustrations for family members and teachers due to their incapability to comfort or respond appropriately to children with ASD (Durand & Merges).

Dealing with SIBs becomes even more challenging for classroom teachers since there are many possible functions behind the students' SIBs. In order to apply appropriate and effective behavioral interventions, it is imperative for teachers to understand the underlying rationale of the child's SIBs. Due to a vast amount of information on different strategies, it is time-consuming for teachers to conduct the research themselves. Also, teachers are often confused about how to implement these techniques in the classroom.

Therefore, many teachers seem to apply general classroom management rules to manage the problem behaviors of students with ASD such as placing them in a timeout, sending them to the office, or sending them home regardless of the function of the behaviors. However, behavioral strategies are mostly used to address the function of challenging behaviors (Chezan, Gable, McWhorter, & White, 2017, p. 295). In other words, inappropriate consequences can also aggravate the behavior as teachers may unintentionally reinforce their SIBs. For instance, if a teacher terminates an academic activity due to student's SIBs, consequently, it is more likely that the student will display SIBs in the future whenever he/she wants to escape from an academic task being demanded.

As a result of not being handled effectively, students' SIBs often become worse. Teachers typically recommend a more restrictive environment placement

for the students to address SIBs they could not manage in their own classrooms. Many legal issues between parents of children with ASD and schools, including due process, are the results of inappropriate educational placements and/or ineffective behavior intervention plans (Foxy & Garito, 2007). Such a process can be very costly and time consuming for everyone involved.

SIBs can be extremely stressful and frustrating for students and educators to experience daily. Conroy and colleagues (2005) state that utilizing effective evidence-based strategies can significantly decrease the occurrences of challenging behaviors in adolescence and adulthood. By understanding the long-lasting impact of effective behavioral strategies on student life, it is crucial that educators give serious consideration in utilizing effective interventions in their students' early childhood years when SIBs are newly formed and are much easier to be altered (Conroy, Dunlap, Clarke, & Alter, 2005).

Purpose Statement

Teachers tend to readily invest their time on academic instructions including but not limited to creating lesson plans, performing various assessments, or utilizing different instructional strategies; These are all essential elements of classroom teachers' responsibilities. However, managing students' challenging behaviors is also necessary for effective teaching and classroom management. It is only possible when students' problem behaviors are under

controlled that both students and teachers can perform at their optimal capacities.

Therefore, it is vital for teachers to receive support and explicit directions on how to appropriately and effectively prevent student's SIBs. The purpose of this project was to develop a practical manual for teachers that presents details on how to implement *proactive*, evidence-based strategies, such as antecedent-based intervention (ABI), to help teachers minimize SIBs of young children with ASD in the school setting.

The Significance of the Project

There are many children with ASD who exhibit SIBs. Unfortunately, not enough teachers know how to handle students' problematic behaviors effectively. This guiding manual was developed to provide explicit instructions on how to use proactive strategies to help minimize SIBs of children with ASD. As a special education teacher, I expect this manual can provide practical strategies and help fellow teachers, as well as those who directly work with children who have ASD in the school setting such as general education teachers, paraprofessionals, and specialists to appropriately prevent students' SIBs. The less frequent of SIBs occurrences, the more meaningful time students have for participation in academic instructions and engagement in peers' interaction. In the long run, this manual is expected to help improve students' quality of life by reducing the stress and frustration for them, staff, and families. Furthermore, effectively assisting

students in decreasing their SIBs could also create trust and maintain a positive relationship between school and parents.

Limitations of the Project

The list of the evidence-based interventions included in the manual is not exhaustive as it heavily focuses on ABI strategies. Although ABI strategies are often discussed as easy to apply, they still require the effort of the educational team, including specialists, general education teachers, and parents to learn about the practices. Also, their commitment to supporting implementation across settings is imperative to achieve effective results. Moreover, when dealing with frequent and highly severe SIBs, teachers should consult and get more support from other specialists such as a board-certified behavior analyst and a school psychologist as a well-designed and comprehensive treatment program may be needed.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter provides a synthesis of related studies based on the topographies of SIBs, the characteristics of participants, the functions of SIBs, and different types of strategies to reduce SIBs.

The Topographies of Self-Injurious Behaviors

Studies that investigate the SIBs of young children with ASD have shown a wide range of severity in the topographies. Table 1 shows the topographies of SIBs/co-occurring challenging behaviors of participants of the studies included in this review. Out of 12 participants included in this literature review, 9 displayed SIBs by hurting some parts of the head such as head hitting/banging, hitting eyes, chin, nose or slapping face (Casey & Mercial, 2006; Cornelius Habarad, 2015; Demanche & Chok, 2013; Falcomata, Roane, Muething, Stephenson, & Ing, 2012; Foxx & Garito, 2007; Hausman, Kahng, Farrell, & Mongeon, 2009; Padilla Dalmau et al., 2011; Sigafos et al., 2006). Five participants, two of whom also engaged in hurting some parts of the head, demonstrated SIBs by hurting some parts of the body such as hitting fingers/knees/legs/arms, hand mouthing, nail-biting, self-biting, throwing oneself down, and self-hitting with objects (Schieltz et al., 2011; Heffernan & Lyons, 2016; Hausman et al., 2009).

In addition, eight out of 12 participants engaged in more than one SIBs topography such as head banging and eye hitting, and seven out of these eight

children also exhibited co-occurring topographies namely aggression, property destruction, and disruption (Casey & Mercial, 2006; Demanche & Chok, 2013; Foxx & Garito, 2007; Hausman et al., 2009; Padilla Dalmau et al., 2011; Schieltz et al., 2011). These studies reveal that head hitting is the most frequent SIBs topography of young children with ASD, and many of them display multiple SIBs topographies and other challenging behaviors simultaneously.

The Children's Characteristics

All 12 participants have ASD, but six of them also had a co-existing diagnosis such as intellectual disability, attention deficit hyperactivity disorder, and cerebral palsy. Four of seven children who engaged in multiple topographies of SIBs and other maladaptive behaviors have comorbid ASD and intellectual disability (Fox and Garito, 2007; Hausman et al., 2009; Padilla Dalmau et al., 2011; Schieltz et al., 2011). Out of 12 participants, six had limited language skills ranging from nonverbal, using picture exchange system to having single words or some set phrases (Cornelius Habarad, 2015; Fox and Garito, 2007; Padilla Dalmau et al., 2011; Schieltz et al., 2011; Sigafos et al., 2006), two were verbal (Casey and Mercial, 2006; Hausman et al., 2009), and the rest did not report on the children's language ability. Table 1 also shows the participants' characteristics across studies.

Table 1:

The Children’s Characteristics and Their Topographies of SIBs/Co-Occurring Challenging Behaviors

Study	Partici-pant	Language Ability	Diagnosis	SIBs Topographies		Co-occurring Challenging Behaviors			
				Hurting head	Hurting body	Aggression	Disruption	Property Destruction	Other
Casey and Mercial (2006)	1	verbal	ASD	✓ (*)		✓		✓	
Foxx and Garito (2007)	1	somewhat verbal	ASD, ADHD, ID	✓ (*)		✓	✓		induced vomiting
Padilla Dalmau et al. (2011)	1	single words	ASD	✓	✓	✓		✓	
	1		ASD, ID		✓ (*)	✓		✓	
Schieltz et al. (2011)	1	set phrases	ASD		✓ (*)	✓	✓	✓	
	1	single words, object exchange	ASD, ID	✓ (*)		✓	✓	✓	
Falcomata et al. (2012)	1		ASD	✓		✓		✓	

Study	Partici -pant	Language Ability	Diagnosis	SIBs Topographies		Co-occurring Challenging Behaviors			
				Hurting head	Hurting body	Aggression	Disruption	Property Destruction	Other
Cornelius Habarad (2015)	1	nonverbal (PECS)	ASD	✓					
Heffernan and Lyons (2016)	1		ASD		✓				
Sigafoos et al. (2006)	1	nonverbal	ASD, ID	✓					
Demanche and Chok (2013)	1		ASD, ID	✓ (*)					
Hausman et al. (2009)	1	verbal	ASD, ID, CP	✓	✓ (*)	✓		✓	Ritualistic behavior

Note. PECS= picture exchange communication system; ASD= autism spectrum disorders; ADHD= attention deficit hyperactivity disorders; ID= intellectual disability; CP= cerebral palsy; (*)= engage in more than one SIBs topographies such as hitting head and face. Adapted from

Source:

Chezan, L. C., Gable, R. A., McWhorter, G. Z., & White, S. D. (2017). Current perspectives on interventions for self-injurious behavior of children with autism spectrum disorder: A systematic review of the literature. *Journal of Behavioral Education, 26*(3), 293–329. doi: 10.1007/s10864-017-9269-4

It is noticeable that a high percentage (five out of seven) of children who engage in multiple SIBs topographies and other maladaptive behaviors in these studies are severely affected by comorbid diagnosis and have higher deficits in communication. Research has shown that there is a high correlation between SIBs and the severity of ASD, language skills, and other maladaptive behaviors. For instance, Baghdadli et al. (2003) note that severe SIBs are more likely to happen to children with more severe autistic symptomatology and those who have a higher degree in speech delay. Soke et al. (2017) also find a significant association between SIBs and maladaptive behaviors such as aggression, disruption, and property destruction.

The Different Functions of Self-Injurious Behaviors

Out of 10 studies included in this review, seven conducted functional analysis to determine the functions of the participants' SIBs (Casey & Mercial, 2006; Demanche & Chok, 2013; Falcomata et al., 2012; Hausman et al., 2009; Padilla Dalmau et al., 2011; Schieltz et al., 2011; Sigafos et al., 2006), one study (Heffernan & Lyons, 2016) utilized the functional assessment, and neither functional analysis or functional assessment was reported for the remaining two studies (e.g., Cornelius Habarad, 2015; Foxx & Garito, 2007). The functional assessment includes direct observations and interviews gathered from those who are familiar with the child (e.g., parents) to determine the function of SIBs (Chezan et al., 2017, p.301). While, functional analysis involves manipulating of

the environments/events to test under which condition (e.g., attention or escape) that SIBs are more likely to occur (Casey & Merical, 2006). For instance, if educators hypothesize that a child may seek others' attention through his/her SIBs, then they will test it out by providing the child with a toy versus attention, contingent upon his/her SIBs. The results will confirm whether the hypothesis is true if the rate of SIBs is higher when attention is provided as compared to the rate of SIBs when a toy is provided following the child's SIBs.

Based on the results of these functional analyses and functional assessments, most SIBs in children with ASD have been maintained through two main types: negative reinforcement (to avoid) and multiple functions (both negative and positive reinforcements). Negative reinforcement is a situation where an individual displays SIBs to avoid or escape something unpleasant to them, such as demands (Casey & Merical, 2006; Sigafoos et al., 2006). Multiple functions are situations where a child exhibits SIBs not only to escape something (negative reinforcement) but also to access something (positive reinforcement) such as tangibles or attention (Padilla Dalmau et al., 2011; Schieltz et al., 2011).

However, four participants are insensitive to the antecedent and consequent events, which is being referred to as automatic reinforcement. A child with ASD exhibited SIBs when his ongoing high-preferred activities were being interrupted (Falcomata et al., 2012). Another child engaged in SIBs when his ritualistic activities were being blocked (Hausman et al., 2009). The remaining two children displayed SIBs as their ways to obtain the

sensory/pressure they need, including nail-biting and hitting head or face (Demanche & Chok, 2013; Heffernan & Lyons, 2016).

Identifying the functions of the student's SIBs is an important step to help educators determine appropriate interventions; however, the functional analyses and the functional assessment in these studies were explained too briefly to be replicated. Also, these assessments were done mostly, with none or limited involvement of educators, by researchers who were interventionists. Therefore, it can be very challenging for educators to perform these analyses by themselves without explicit directions and adequate support.

Strategies to Mitigate Self-Injurious Behaviors

Based on the functions of SIBs, different behavioral interventions were applied. The following strategies are grouped by the functions of SIBs. Table 2 shows the strategies used across studies.

Self-Injurious Behaviors that are Maintained by Negative Reinforcement

There are two studies, Casey and Mercial (2006) and Sigafos et al. (2006), where participants used SIBs to escape or avoid demands, which is categorized as negative reinforcement. Casey and Mercial (2006) used functional communication training (FCT), one of the ABI strategies, to teach an 11-year-old boy to use verbal responses to request for breaks during tasks. On the other hand, Sigafos et al. (2006) used instruction-based intervention to embed learning into ongoing activities to decrease SIBs.

Table 2:
Type of Interventions Implemented

Functions of SIBs	Studies	Partici- pants	Type of interventions					
			Antecedent based	Reinforcement -based	Extinction Based (*)	Instruction based	Punishment based	Other
SIBs that are maintained by negative reinforcement	Casey and Merial (2006)	1	✓ (FCT)					
	Sigafoos et al. (2006)	1	✓ (FCT)			✓ (embedded instructions)		
SIBs that are maintained by multiple functions	Padilla Dalmau et al. (2011)	2	✓ (FCT)		✓		✓(**)	
	Schieltz et al. (2011)	2	✓ (FCT)		✓		✓(**)	
SIBs that are maintained by automatic reinforcement	Demanche and Chok (2013)	1	✓ (FCT)					✓ (wrist weights & head massager)
	Heffernan and Lyons (2016)	1	✓ (visual schedule, auditory timer)	✓ (DRO)				✓ (containers of dried rice/pasta)

Functions of SIBs	Studies	Partici- pants	Type of interventions					
			Antecedent based	Reinforcement -based	Extinction Based (*)	Instruction based	Punishment based	Other
SIBs that are maintained by other factors	Falcomata et al. (2012)	1	✓ (FCT)		✓			
	Hausman et al. (2009)	1	✓ (FCT)				✓ (denied access to ritualistic behavior)	
Strategies used without performing functional analysis or functional assessment	Cornelius Habarad (2015)	1	✓ (FCT)				✓ (working time-out)	
	Foxx and Garito (2007)	1	✓ (visual schedule, modify instructions)	✓ (DRA)	✓	✓ (mand training)	✓ (exercise)	

Note. FCT= functional communication training; DRO= a differential reinforcement of other behavior; (*)= ignored /neutral blocked; DRA= a differential reinforcement of alternative behavior; (**)= ending with playtime and return to work. Adapted from Source:

Chezan, L. C., Gable, R. A., McWhorter, G. Z., & White, S. D. (2017). Current perspectives on interventions for self-injurious behavior of children with autism spectrum disorder: A systematic review of the literature. *Journal of Behavioral Education, 26*(3), 293–329. doi: 10.1007/s10864-017-9269-4

Although the result showed that these embedding instructional strategies were more effective at decreasing SIBs compared to using discrete-trial training (DTT) instructional sessions, it could be partly because the lessons taught were different during these two conditions. Both studies incorporated the least-to-most prompting system (i.e., verbal, gestural/model, and physical prompts). However, preferred activities were used to teach for manding during the embedded instructional format while more difficult tasks (i.e., imitation, receptive, and labeling) were used during the DTT. Also, unlike Casey and Mercial (2006), Sigafoos et al. (2006) used many positive and enthusiastic social praise/gestures including “that is right,” “good job,” or a pat on the back when the participant provided correct responding.

Self-Injurious Behaviors that are Maintained by Multiple Functions

This category includes SIBs that are maintained by both negative and positive reinforcements. There are two studies, Padilla Dalmau et al. (2011) and Schieltz et al. (2011) whose participants displayed SIBs to escape from demands (negative reinforcement) and also to access to tangibles and/or attention (positive reinforcement). Both Padilla Dalmau et al. (2011) and Schieltz et al. (2011) used the same combination of three different strategies: ABI (FCT), extinction-based (ignored/neutrally blocked), and punishment-based interventions (ending with playtime and return to work) to help decrease SIBs in four participants ranging in age from three to six-year. All participants were taught to press a microswitch with an attached picture/word card to ask for

reinforcement, accessing to parents' attention while playing with their preferred toys during their one-to-two minutes breaks, after completing their tasks. Once they complied, the number of tasks was increased. The extinction-based intervention was used to ignore/block the participants' SIBs neutrally during the working period. When the children exhibited SIBs during the playing period, the authors also used punishment-based interventions, which resulted in ending with playing time and return to work. Similar to the previous two cases, these studies also utilized the three-step least-to-most prompting procedure to help the children complete the demand. However, no positive social praise was reported by Padilla Dalmau et al. (2011), while it was used often in the study of Schieltz et al. (2011).

Self-Injurious Behaviors that are Maintained by Automatic Reinforcement

There are two studies, Demanche & Chok (2013) and Heffernan & Lyons (2016), whose participants displayed SIBs to achieve sensory stimulation (automatic reinforcement). Each study used different types of interventions. Demanche & Chok (2013) used ABI and additional equipment to help decrease hitting head or face SIBs of a twelve-year-old boy. The participant was first put on four pounds wrist weights, which was later reduced to half a pound in combination with contingent access to a head massager upon appropriate request. He was taught to use FCT by handing over a green card with a picture of the head massager attached to it.

On the other hand, Heffernan and Lyons (2016) chose reinforcement-based interventions, differential reinforcement of other behavior (DRO), to treat SIBs of a four-year-old boy who displayed frequent nail-biting. If the child did not engage in any SIBs during the specified time interval, he was allowed to access to his preferred activity which was moving his fingers back and forth while placing his hands in different containers of dry rice, pasta, or cereal. Besides, ABI strategies were also utilized, including a visual representation of the rules and auditory timers.

Self-Injurious Behaviors that are Maintained by Other Factors

There are two cases with non-traditional functions where participants' SIBs were occasioned by the interruption of ongoing preferred activities (Falcomata et al., 2012) and by being blocked from manipulating the door positions (Hausman et al., 2009). Both studies applied ABI with the least-to-most prompting procedure. Falcomata et al. (2012) used FCT and a chained schedule. The therapist and the participant took turns to have "their ways" and wore the boy's favorite toy sheriff's star when they were "in charge." The boy was taught to mand for the sheriff's star when it is his turn to play the activity without interruptions for 30 seconds. After that, it was the therapist's turn to wear the sheriff's star while interrupting/directing the boy's ongoing activity. Eventually, the manding was delayed, academic tasks were incorporated, and the time to work with the therapist was also increased.

Similarly, Hausman et al. (2009) also used FCT to teach a nine-year-old girl to hand over a picture card and simultaneously emit the verbal response, “My way, please” before accessing her ritualistic behavior of closing or opening the door. However, the FCT used in this case only served to reduce the SIBs but did not help reduce the ritualistic behavior. It is impractical to allow her to open or close the door in the naturalistic environment every time she requests. In addition to ABI, Falcomata et al. (2012) also used an extinction-based strategy where participant’s SIBs were ignored, and Hausman et al. (2009) used punishment-based intervention to block the participant’s access to her ritualistic behaviors if she displayed SIBs.

Strategies Used without Performing Functional Analysis or Functional Assessment

The remaining two studies (e.g., Cornelius Habarad, 2015; Fox & Garito, 2007) did not perform either the functional analysis or functional assessment to identify the function of SIBs. However, recognizing the relationship between SIBs and the risk factors (e.g., language delay), researchers conducted their studies to address these deficits while aiming to decrease SIBs. For instance, Cornelius Habarad (2015) used ABI, namely FCT, to teach a nonverbal 12-year-old boy with ASD to mand using pictures exchange communication system (PECS) and sign language. When the participant engaged in SIBs, the author also implemented working time-out, a punishment-based intervention, which includes completing tasks of mastered imitation or receptive directions.

On the other hand, Foxx and Garito (2007) used one a reinforcement-based intervention, the differential reinforcement of alternative behavior (DRA), to reward the participant with preferred items whenever he complied with all the demands. The authors also implemented a punishment-based intervention by having the participant exercise for 15 minutes whenever he displayed SIBs. However, the severity and high frequency of the participant's SIBs required the authors also to use other interventions. They incorporated ABI strategies, including daily visual schedule and allowing only two sessions of direct instructions per school day. They also utilized instructional-based intervention for mand training. Providing choices for preferred items and the least-to-most prompting procedure were also applied.

Discussion

Ten studies were reviewed by their intervention types and the functions of SIBs: FCT, one of ABI strategies, was the most commonly implemented intervention to teach participants request for their wants and needs in an appropriate manner, regardless of the functions of their SIBs. Different types of communication were taught, ranging from pressing a microswitch with an attached picture/word card, PECS, sign language, gesture, to verbal response depending on the language skill of the participants. Also, FCT is often accompanied by other interventions such as extinction-based and punishment-based interventions.

Instead of utilizing punishment-based intervention, educators should give serious consideration in applying proactive, positive behavioral techniques while incorporating some strategies used in some studies such as the least-to-most prompting system, visual schedules, modified instructions, as well as giving enthusiastic social praise during teaching.

CHAPTER THREE

METHODOLOGY

Introduction

This chapter covers the manual development process, including the target population, the structure, and the content of the manual.

Target Population

This manual was developed for those who work with young children with ASD in the school setting, including general education teachers, special education teachers, paraprofessionals, and specialists. This manual is highly recommended for educators who are new to special education and are not familiar with managing challenging behaviors, including SIBs, of children with ASD. It is desired if the whole IEP team learn about these strategies to be consistent throughout the school day.

Manual Development

Manual Design

Included in this manual are some common ABI interventions presented in the ABI modules of the National Professional Development Center on Autism Spectrum Disorders (NPDC-ASD), the Autism Internet Modules (AIM), and the *Interventions and Adaptations for Children with Autism Spectrum Disorder in*

Inclusive Early Childhood Settings article in the *Early Childhood Education Journal*. The manual also used other ABI strategies, namely FCT and reinforcement. Although extinction is not one of the ABI procedures, it was included in the manual as well as it is often used in conjunction with ABI strategies as seen in this review.

ABI strategies have been proven effective in decreasing problematic behaviors in children with ASD, including SIBs (Neitzel, 2010). As the name suggests, ABI strategies are designed to alter maladaptive behaviors before they occur. The goal of ABI strategies is to identify the factors in the environment that trigger the problem behaviors (antecedents) as well the factors that reinforce the behaviors after they occur (consequences) to help educators make necessary changes to the environment/activities which avoid future occurrences of students' challenging behaviors (Neitzel, 2010). ABI strategies are often viewed as easily applicable and appropriate for young children (Conroy, Davis, Fox, & Brown, 2002).

Many children with ASD have difficulties in communication skills (Mancil & Boman, 2010). Researchers discovered that FCT has consistently shown the effectiveness in helping students use replacement communicative responses for their wants and needs rather than engaging in SIBs (Mancil & Boman, 2010). Indeed, eight out of ten studies included in this review successfully applied FCT to address the behavioral needs of children with ASD across behavioral topographies and language levels.

Reinforcement, (e.g., the token economy program), is an evidence-based intervention that can be used to teach a variety of skills namely self-help, language, academic work, and help decrease problem behaviors (Neitzel, 2010). Since everyone is motivated by something, as long as teachers can identify the reinforcers (e.g., positive social praise, edible, activity) that the student likes, he/she would be willing to work for it (Exhibit 3 - Preference/Motivation Screening Rubric helps identify these reinforcers).

Extinction refers to ignoring the interfering behaviors if the function of the behaviors is to gain others' attention (Exhibit 4 - The A-B-C Chart can be used to collect behavioral data which help identify the functions of the target behavior). The rationale behind this evidence-based intervention is that by ignoring, teachers are no longer reinforcing the attention-seeking behaviors. Eventually, the behaviors will decrease (after an extinction burst, which is a short period when students would try harder to get others' attention when extinction was initially implemented).

All the interventions above were grouped by different areas of needs to support children with ASD. The following outline was developed:

Manual Content

1. Section I: A Brief Look at ASD
2. Section II: Strategies for Organizational Support
 - Priming
 - Visual/Verbal/Auditory Cues

- Daily Class Schedule
 - Clear Behavioral Expectation
 - Organized Classroom
 - Classroom Personal Space
 - Resources
3. Section III: Strategies for Social/Communication Support
- Redirection
 - Allowing Extra Time
 - Social Narrative
 - Video Modeling
 - Functional Communication Training (FCT)
 - Resources
4. Section IV: Strategies for Sensory Support
- Sensory Support
 - Resource
5. Section V: Strategies for Behavioral Support
- Task Analysis
 - Offering Choices
 - Using Learner Preferences
 - Altering Instruction
 - Altering the Environment
 - Reinforcement

- Least-to-Most Prompting
- High-Probability Request
- Extinction
- Resources

6. Section VI: Exhibits

- Exhibit 1: Classroom Organization and Behavioral Management Checklist
- Exhibit 2: Communication Support Needs
- Exhibit 3: Preference/Motivation Screening Rubric
- Exhibit 4: The A-B-C Chart
- Exhibit 5: Create a Behavioral Plan

CHAPTER FOUR

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The Center for Disease Control (CDC 2014) reveals that the prevalence of ASD is 1 in every 68 children in the United States. It is more likely that educators, especially special education teachers and specialists, will work with students with ASD. Thus, it is imperative for educators to know some proactive strategies that have been proven effective in helping decreasing challenging behaviors, including the self-injurious behavior of children with ASD. This manual provides a simple explanation of the strategies and practical examples to help bridge the gap between research and real-life practice.

Recommendations

It is recommended that this manual be provided to all educators, especially to those who are new to special education, or those who do not have experiences working with children with ASD. It is also beneficial that this manual to be continually developed by all educators' contribution, such as adding more meaningful and hands-on examples, resources, and the latest proactive, evidence-based strategies.

APPENDIX

EFFECTIVE EVIDENCE-BASED STRATEGIES TO MINIMIZE SELF-INJURIOUS BEHAVIORS IN YOUNG
CHILDREN WITH AUTISM SPECTRUM DISORDERS: A PRACTICAL MANUAL FOR EDUCATORS

Effective Evidence-based Strategies to Minimize

SELF-INJURIOUS BEHAVIORS

in Young Children with Autism Spectrum Disorder



*A Practical
Manual for
Educators*

Introduction

The purpose of this manual is to provide some proactive, practical, evidence-based strategies to help educators manage challenging behaviors, including self-injurious behaviors, of children with Autism Spectrum Disorder (ASD). I hope the manual will help educators better understand some of the difficulties that children with ASD face and different ways to support them in the areas of communication, social, sensory, and behaviors. The manual consists of a simple explanation of the interventions and examples of how and when to implement them in the classroom.

The strategies will be grouped by four areas of need to support children with ASD:

- Strategies for Organizational Support
- Strategies for Social/Communication Support
- Strategies for Sensory Support
- Strategies for Behavioral Support

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SECTION I

A BRIEF LOOK AT ASD

Section I – A Brief Look at ASD

Children with ASD often have difficulties in the following areas:



Communication:
may or may not be verbal, or having an awkward way of conversation.



Social Interaction:
problems playing with others or interacting inappropriately.



Behaviors:
unusual emotional reactions such as having intense tantrums and/or displaying self-injurious behaviors.



Sensory Processing:
over or under reaction to one or more of the five senses.





Many strategies included in this manual are visually incorporated because many children with ASD are visual learners. This is partly due to their language deficits, which is not only cause difficulties in expressing their wants and needs verbally but also limit their understanding of auditory information or verbal instructions given by others. The use of visual aids can facilitate greater understanding and comprehension for them (Quill, 1997). Visual supports help abstract concepts more concrete and serve as constant reminders much longer than verbal instructions do.


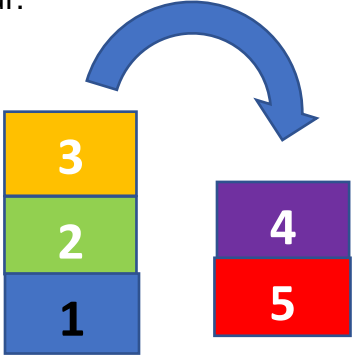

SECTION II

STRATEGIES FOR ORGANIZATIONAL SUPPORT

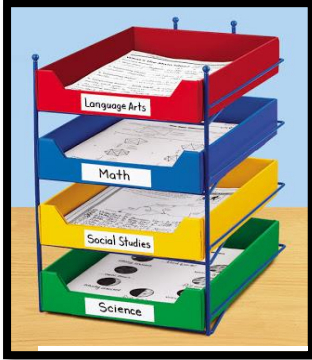



Section II - Strategies for Organizational Support





Strategies that help children with ASD anticipate and facilitate understanding of the environment.

Strategy	Explanation	Examples	When to Use It
<p>Priming</p>	<p>Providing students with a video or pictures of the new activity before it occurs, so it becomes more predictable.</p>	<p>a. Using video: teacher goes to the farm (before the field trip day) to videotape (1-4 minutes long) the environment and describe what would be expected while students at the farm.</p> <p>b. Using print: social stories with pictures to briefly describe upcoming events across different settings. For example,</p> <p style="text-align: center;">On Thursday, we will ride on a bus and go to the farm.</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <p style="text-align: center;">Then we will eat lunch in the park.</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div>	<p>These strategies can be used:</p> <ul style="list-style-type: none"> * Several times over several days before the transition. * To help decrease off-task behaviors and assist in a smoother transition to novel activities or locations.

Strategy	Explanation	Examples	When to Use It
<p>Visual/ Verbal/ Auditory Cues</p>	<p>Providing students with visual information about how much time left for an activity so they can be prepared before the transition occurs</p>	<p>a. Visual/verbal cues: before the transition from computer time to work time, the teacher shows the visual timer to the student and say: "when the red is gone, it is time for math sheet."</p>  <p>b. Visual countdown: teacher can stack cubes of numbers 1 to 5 with 5 being on top. Before it is time to clean up their current activity, teachers can remove number 5 and work their way down to number 1 for cleanup time. The teacher can remove quickly or slowly, depending on when the transition will occur.</p>  	<p>These strategies to be used before a transition.</p> <p>b. Visual Countdown: to be used when the timing of the transition needs to be flexible.</p>

Strategy	Explanation	Examples	When to Use It
<p>Daily Class Schedule</p>	<p>A visible classroom schedule to help students keep track of what activity will be coming up next.</p>	<p>c. Verbal/Auditory Cues: When it is time to clean up, teachers can give a verbal warning (e.g., “5 more minutes, then clean up”) and auditory cues (e.g., sing the clean-up song, bell or timer) to signal a transition.</p> <div data-bbox="676 532 1087 813"> </div> <div data-bbox="1125 532 1520 813"> </div> <p>Examples of verbal cues</p> <p>* Visual: A schedule, which consists of a picture of the activity accompanied by the words, that is posted: in front of the room or on students' desks</p> <div data-bbox="743 1036 1031 1409"> </div> <div data-bbox="1176 1036 1455 1409"> </div>	<p>Before the transition throughout the school day</p> <p>Refer to the schedule before and during the transition to help:</p> <ul style="list-style-type: none"> * Decrease transition time due to challenging behaviors. * Increase compliance and independence. * Provide students with clear expectation.

Strategy	Explanation	Examples	When to Use It
<p>Organized Classroom</p>	<p>Highly organized materials to help students understand and follow through with the classroom's expectation.</p>	<p>Use color coding (with printed words and/or students' pictures) each of the students, namely folders, chairs, instructional materials, supplies.</p> <p>worksheets by subjects</p>  <p>books by subjects</p>  <p>supplies</p>  <p>students' writing journals</p> 	<p>Throughout the school day to help students be independent and reduce the need for verbal reminders.</p>

Strategy	Explanation	Examples		When to Use It
<p>Clear Behavioral Expectation</p>	<p>Set explicit classroom rules to help students understand what to do instead of what not to do.</p>	<p>Post simple instructions accompanied by pictures of the classroom expectations:</p> <div style="display: flex; justify-content: space-around;"> <div data-bbox="726 444 1026 805">  </div> <div data-bbox="1157 444 1465 805">  </div> </div>		<p>In all areas of activities, namely circle time, restroom, center, or snack time.</p>
<p>Classroom Personal Space</p>	<p>Providing students with a designated space (e.g., for a break if overstimulation occurs) or a specific spot during an activity to help them stay in their space</p>	<p>An area away from the main events of the classroom during breaks</p> <div style="display: flex; justify-content: space-around;"> <div data-bbox="695 1013 1045 1333">  </div> <div data-bbox="1157 1013 1507 1333">  </div> </div>		<p>As needed when students are required to stay seated or remain in certain areas.</p>

Resources


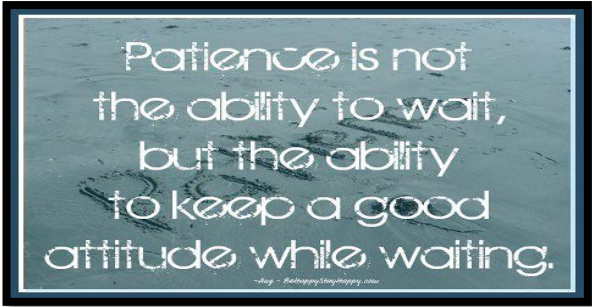
<p style="text-align: center; color: red;">Priming Visual/Verbal/Auditory Cues</p>	<p>Visual Support: Center for Autism and Related Disabilities, University of Florida (n.d.). Visual Supports. http://card.ufl.edu/resources/visual-supports/</p> <p>Priming, verbal, auditory cues, and more visual support: The module is available at www.autisminternetmodules.org (Autism Internet Modules/Autism in the Classroom/Transitioning between Activities)</p>
<p style="text-align: center; color: red;">Daily Class Schedule</p>	<p>http://afirm.fpg.unc.edu/visual-supports</p> <p>http://challengingbehavior.fmhi.usf.edu/do/resources/teaching_tools/toc/folder5/5c_class_viss_sched.ppt</p>
<p style="text-align: center; color: red;">Clear Behavioral Expectation</p>	<p>http://afirm.fpg.unc.edu/visual-supports</p>
<p style="text-align: center; color: red;">Organized Classroom</p>	<p>http://iris.peabody.vanderbilt.edu/module/acc/</p>
<p style="text-align: center; color: red;">Classroom Personal Space</p>	<p>https://www.autismspeaks.org/sites/default/files/afyo_environment.pdf</p>

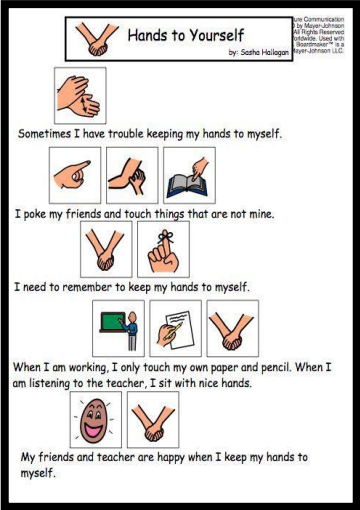


SECTION III



SOCIAL/COMMUNICATION SUPPORT


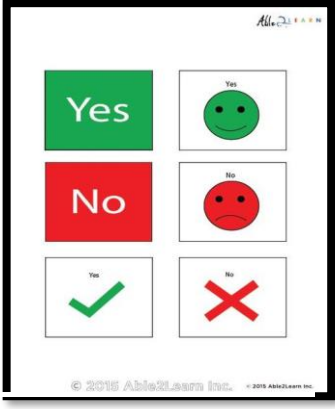


Section III - Social/Communication Support


Strategies that help students with ASD understand social situations, interact, and communicate appropriately.

Strategy	Explanation	Examples	When to Use It
<p>Redirection</p>	<p>Interrupting an undesired behavior and redirecting students to more appropriate behavior.</p>	<p>* Showing the student another available tricycle when he/she is trying to grab it from a peer.</p> <p>* Redirecting the student to throw bean bags into the hole of the toy set instead of throwing toys.</p> 	<p>When students engage in inappropriate behaviors, especially during free play or recess when students with ASD have difficulties with appropriate play/social interactions.</p>
<p>Allowing Extra Time</p>	<p>Giving students extra time to process the information received before answering questions or following directions.</p>	<p>Waiting patiently for an additional 10-15 seconds when asked students to wash hands or line-up at the door instead of rushing them.</p> 	<p>When asking students questions or giving out requests.</p>

Strategy	Explanation	Examples	When to Use It
<p>Social Narratives</p>	<p>Describe to students what to do during social situations using simple picture stories.</p>	<p>Read to students social stories such as:</p> <div style="display: flex; justify-content: space-around;"> <div data-bbox="743 488 1100 995"> <p style="text-align: center;">Hands to Yourself</p>  </div> <div data-bbox="1129 488 1486 995"> <p style="text-align: center;">Ask to Play</p>  </div> </div>	<p>Can be read before the social situation occurs. They can be used as reminders for students during social situations.</p>
<p>Video Modeling</p>	<p>Show students what to do during a social situation by watching peers performing the target skill through a video.</p>	<p>Record how peers raise their hands when teachers ask a question and show it to students.</p> <div style="text-align: center;">  </div>	<p>Can be shown to students before or during social situations.</p>

Strategy	Explanation	Examples	When to Use It
<p>Functional Communication Training (FCT)</p>	<p>Teaching students to communicate their wants and needs in appropriate manners instead of engaging in challenging behaviors.</p>	<p>When students show signs of not wanting to do something, teach them (depend on their abilities) to sign, shake heads, or point to the picture to express “No.”</p> <p>Alternatively, when students want something, teach them to create a sentence using the communication board or vocal output system to express “I want ----- please.”</p> <p>Teach students to communicate through:</p> <p style="text-align: center;">Signs/gestures</p> <div style="display: flex; justify-content: center; align-items: center;">   </div>	<p>As soon as students attempt to communicate through non- symbolic forms of communication, such as:</p> <ul style="list-style-type: none"> * Gazing at something of interest or grabbing someone’s hands when they want something or * Displaying inappropriate behaviors (e.g., pushing materials away, screaming) when they do not want something.

Strategy	Explanation	Examples	When to Use It
		<p style="text-align: center;">Words/pictures cards</p> <div style="display: flex; justify-content: space-around;">   </div> <p style="text-align: center;">Vocal output system</p> <div style="display: flex; justify-content: space-around;">   </div>	

Strategy	Explanation	Examples	When to Use It
		<p style="text-align: center;">Communication boards</p> 	

Resources





Redirection	http://www.murrieta.k12.ca.us/cms/lib5/CA01000508/Centricity/Domain/64/EBP_overview_24_2.pdf
Allowing Extra Time	http://iris.peabody.vanderbilt.edu/module/acc/ http://www.autismspeak.org/sites/default/files/sctk_supporting_learning.pdf
Social Narrative	http://afirm.fpg.unc.edu/social-narratives
Video Modeling	http://watchmelearn.com/video-modeling/video-modeling-in-practice
Functional Communication Training (FCT)	www.autisminternetmodules.org (Autism Internet Module/Functional Communication Training) www.asatonline.org/treatment/procedures/functional2.htm

SECTION IV

SENSORY SUPPORT

Section IV - Sensory Support

Strategies that help children with ASD control or manage their sensory needs.

Strategy	Explanation	Examples	When to Use It
<p>Sensory support</p>	<p>Providing sensory items and adjusting stimuli in the environment.</p>	<p style="text-align: center;">Provide sensory items:</p> <div style="display: flex; justify-content: space-around;"> <div style="width: 45%;"> <p>Headphones to lessen the noise for those who often cover their ears or are scared of loud noises.</p>  </div> <div style="width: 45%;"> <p>Fidget toys for students who like to touch peers or objects.</p>  </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="width: 45%;"> <p>Chewy tubes for those who often bite or chew on objects.</p>  </div> <div style="width: 45%;"> <p>Weighted vest for those who tend to play rough or fall intentionally.</p>  </div> </div>	<p>The headphones can be used during recess, free play, or fire drills.</p> <p>Fidget toys, chewy tubes, and weighted vest can be used during activities that require students' attention or focus.</p>

Sensory boxes (sand, bean, rice, play dough) for calming



Adjusting stimuli in the environment
such as lessen light or avoid wearing strong perfumes.



Sensory boxes can be provided during free play or breaks.

Throughout the day for those who cover their eyes when it is too bright or have reactions, such as gagging, to strong scents.

Resources





































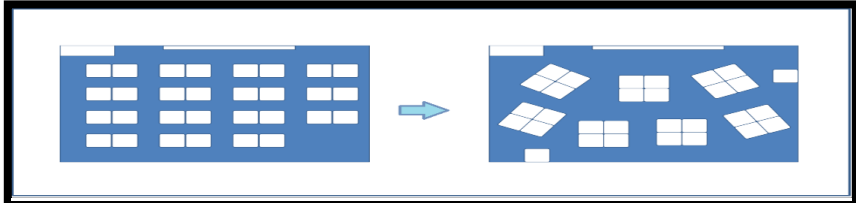
Sensory Support	https://www.autismspeaks.org/sites/default/files/afyo_environment.pdf
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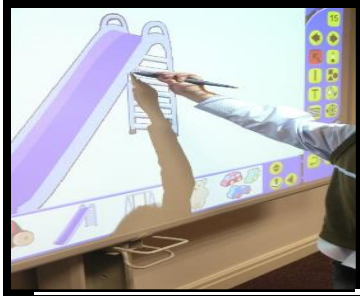



SECTION V




BEHAVIORAL SUPPORT

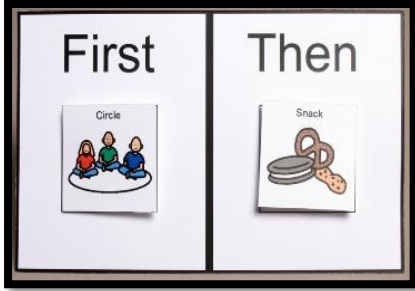
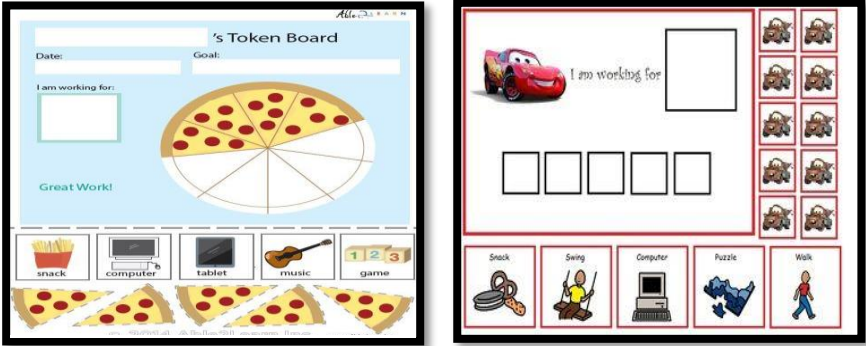
Section V - Behavioral Support

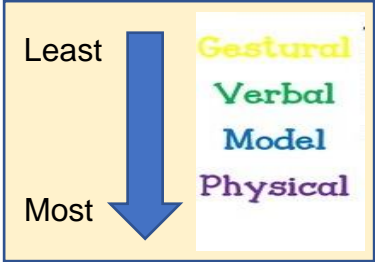
Strategies help prevent challenging behaviors of children with ASD

Strategy	Explanation	Examples	When to Use It																								
<p>Task Analysis</p>	<p>Step-by-step instructions to teach students a specific skill.</p>	<p>A checklist of sequential steps to teach students what to do: during arrival or how to wash hands</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Arrival at school</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;"></td> <td>Take off coat</td> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;"></td> <td>Open Backpack</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;"></td> <td>Take out work</td> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;"></td> <td>Take out lunch</td> </tr> <tr> <td style="text-align: center;">5</td> <td style="text-align: center;"></td> <td>Hang up coat</td> </tr> <tr> <td style="text-align: center;">6</td> <td style="text-align: center;"></td> <td>Hang up backpack</td> </tr> </table> </div> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>FIGHT GERMS BY WASHING YOUR HANDS!</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">1  Wet your hands</td> <td style="text-align: center;">2  Soap</td> <td style="text-align: center;">3  Lather and scrub - 20 sec.</td> </tr> <tr> <td style="text-align: center;">4  Rinse - 10 sec.</td> <td style="text-align: center;">5  Turn off tap</td> <td style="text-align: center;">6  Dry your hands</td> </tr> </table> <p>DONT FORGET TO WASH: -between your fingers -under your nails -the tops of your hands</p> </div> </div>	1		Take off coat	2		Open Backpack	3		Take out work	4		Take out lunch	5		Hang up coat	6		Hang up backpack	1  Wet your hands	2  Soap	3  Lather and scrub - 20 sec.	4  Rinse - 10 sec.	5  Turn off tap	6  Dry your hands	<p>When students have a difficult time to carry out the steps of any given activity independently, and when teachers have to repeat verbal prompts constantly.</p> <p>During activities that are difficult for students to follow through, such as waiting in line, circle, or center time. Throughout the school day</p>
1		Take off coat																									
2		Open Backpack																									
3		Take out work																									
4		Take out lunch																									
5		Hang up coat																									
6		Hang up backpack																									
1  Wet your hands	2  Soap	3  Lather and scrub - 20 sec.																									
4  Rinse - 10 sec.	5  Turn off tap	6  Dry your hands																									
<p>Altering the Environment</p>	<p>Changing the factors in the environment to help decrease interfering behaviors.</p>	<ul style="list-style-type: none"> * Providing activities during wait time. * Placing students with sufficient space in between. * Arranging snack time after a non-preferred activity. * Keeping work area free of distractions. <div style="border: 1px solid black; padding: 5px; text-align: center;">  </div>																									


Strategy	Explanation	Examples		When to Use It
<p>Offering Choices</p>	<p>Allowing students to choose from acceptable choices (e.g., activities, materials, seat) to any given scenario to help students feel they are in control and an active participant of their learning.</p>	<p>During a fine-motor activity, students can choose from using a pen on the smartboard, using chalks on the whiteboard, using markers on a dry-erase board, or using crayons/pencils/pen/permanent markers on paper.</p> 		<p>as this can be embedded during an activity or scenario where the behaviors occur.</p>
<p>Using Learner Preferences</p>	<p>Incorporating student's interest in tasks/activities to increase their compliance and engagement.</p>	<p>Using Legos as manipulatives to teach students in math</p> 	<p>Using a princess notebook and pencils for students to write journals.</p> 	<p>During certain tasks/activities that students are capable but are not interested in completing the work.</p>

Strategy	Explanation	Examples		When to Use It
<p>Altering Instruction</p>	<p>Using different ways of how instruction is delivered.</p>	<p>Show an interactive book on smartboard where students get to interact actively during storytime instead of holding up a book and read from the first to the last page.</p> 	<p>Playing a game to teach computation instead of using paper and pencil approach.</p> 	<p>During an activity, especially during academic work, to help students clearly understand difficult concepts with interesting approaches.</p>
<p>Reinforcement</p>	<p>Providing different environmental condition (e.g., praise, token rewards, food, playtime, and preferred toys or activities) to motivate or increase the occurrences of</p>	<p>Provide positive social praise about what students have done correctly. For example:</p> <ul style="list-style-type: none"> • “Good job using your words!” • “Thank you for sharing. Fantastic!” • “I love how you walk in line so nicely. Awesome!” 		<p>Whenever students display appropriate behaviors or improve on any areas that they are working on.</p>

Strategy	Explanation	Examples	When to Use It
	<p>appropriate behaviors.</p>	<p>* Use the First-Then strategy to have them complete a non-preferred activity before getting access to a preferred activity such as “First Circle – Then Snack.”</p>  <p>* Use the token board which involves awarding tokens/chips to students for completing their work so they can be exchanged for items or activities that they choose to work for.</p> 	<p>During activities to increase focusing and decreasing anxiety.</p> <p>When initially implemented, educators could provide reinforcers continuously. However, as students’ behaviors improve, the reinforcers could be provided randomly and slowly fading out.</p>

Strategy	Explanation	Examples	When to Use It
<p>Least-to-Most Prompting</p>	<p>Providing students with the least amount of help to the most amount of help, including:</p> <ul style="list-style-type: none"> * Gestural (e.g., pointing, waving). * Verbal prompt (e.g., questions, commands). * Model prompt * Physical prompt. (e.g., hand-over-hand). 	<p>Teaching student to request for “help:”</p> <ul style="list-style-type: none"> * Gestural prompt: teacher holds up cookie package, shrugs shoulder as if to say “What do you want?” If the student does not say anything and continues to reach for the cookie, move on to a verbal prompt. * Verbal prompt: teacher says, “What do you want?” Then, waits for about 10 seconds. If no response, move on to a model prompt. * Model prompt: Teacher can say and sign “Help!” Then, wait for about 10 seconds. If still no response, move on to the physical prompt. * Physical prompt: teacher performs hand-over-hand by holding student's hand and sign the word “help” while saying “help,” then open the cookie package for the student. <p style="text-align: center;">Least-to-Most Prompt Hierarchy</p> 	<p>When helping students learn new skills, teachers can use prompting to reduce students’ incorrect responding, which might lead to frustration and challenging behaviors.</p>

Strategy	Explanation	Examples	When to Use It
<p>High-Probability Request</p>	<p>First, presenting students with a sequence of request starting with 2-5 short tasks (that the student has a history of compliance – high-p requests). Then, immediately follows with the request of the target task (low-p request).</p>	<p>To get the student to trace his/her name (low-p request – target task), first ask the student to follow easy directions (high-p request) such as:</p> <ol style="list-style-type: none"> 1. Touch your nose 2. Raise your hands 3. Sit down 4. Get the pencil 5. Trace your name (target request) <p>The student will be more likely to perform the target request due to the behavioral momentum.</p> <div data-bbox="842 794 1465 1081" style="border: 1px solid black; padding: 10px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;">Behavior momentum</p> <ul style="list-style-type: none"> • Something in motion stays in motion. Building momentum to maintain attention and motivation. • Mixing and varying easier tasks to ensure success while adding more difficult and newer instructions. </div>	<p>When students display challenging behaviors associated with non-compliance requests.</p>
<p>Extinction</p>	<p>Ignoring interfering behavior or neutrally blocking (if it is a self-injurious behavior) for</p>	<p>During circle time, a student may slap his face while looking at teachers for reactions. The teacher should ignore that and continue with the lesson plan or neutrally block it (if it is too intense or could cause injuries to the student) so that student cannot slap his face (without engaging in any conversation or giving eye contact with the student).</p>	<p>Whenever students show inappropriate behaviors to get others' attention.</p>

Strategy	Explanation	Examples	When to Use It
	<p>attention-seeking behaviors. By ignoring, teachers no longer reinforce these behaviors, which help decrease in the occurrences.</p>	<p>When the student behaves appropriately, teachers give lots of positive attention such as social praise and reinforcers (use the token board and allow the student getting access to the reinforcers after earning enough tokens for doing a great job).</p> <p style="text-align: center;">Extinction/Ignoring</p>  <p>Note: Student may have an extinction burst (a temporary increase in the frequency/intensity of the interfering behaviors when extinction was first implemented) before it decreases.</p>	<p>Most students who engage in challenging behaviors to get teachers/peers attentions (e.g., getting laughed at, yelled at, looking at, or talking to) tend to look at these people during the occurrences.</p>

Resources

Task Analysis	http://afirm.fpg.unc.edu/task-analysis
Offering Choices	http://teacch.com/about-autism/autism-and-the-importance-of-choice
Using Learner Preferences Altering Instruction Altering the Environment	National Professional Development Center on Autism Spectrum Disorders – Module: Antecedent-Based Intervention
Reinforcement	Wright, D.B. et al. (September 2009). The BIP Desk Reference: A Teacher and Behavior Support Team’s Guide to Developing and Evaluating Behavior Interventions Plans. Available at www.pent.ca.gov .
Least-to-Most Prompting	www.autisminternetmodules.org (Autism Internet Modules/Autism in the Classroom/Prompting)
High-Probability Request	https://iris.peabody.vanderbilt.edu/module/bi2/cresource/q3/p03
Extinction	Extinction: Steps for Implementation (National Professional Development Center on ASD, 2008).

SECTION VI

EXHIBITS

Exhibit 1 - Classroom Organization and Behavioral Management Checklist

To-do List	✓	Suggested Strategies	and/or	Templates
Organize the classroom environment		<ul style="list-style-type: none"> • Daily Class Schedule • Clear Behavioral Expectation • Organize Classroom • Classroom Personal Space 		
Teach appropriate behaviors		<ul style="list-style-type: none"> • Priming • Social Narrative • Video Modeling • Functional Communication Training (FCT) • Redirection • Allowing Extra Time 	→	See Exhibit 2 (a template to keep track of communication support needed for each student)
Support sensory needs		<ul style="list-style-type: none"> • Sensory Support 		
Identify reinforcers and Create a reinforcement system		<ul style="list-style-type: none"> • Reinforcement 	→	See Exhibit 3
Take behavioral data			→	See Exhibit 4
Create a behavioral plan			→	See Exhibit 5

Exhibit 2- Communication Support Needs

Use this template to keep track and provide all appropriate types of communication supports that each student needs in the areas of:

- **Labeling areas and objects:** labels for different areas in the classroom and supplies.
- **Schedule:** group/individual schedules.
- **Behavioral expectation:** group/individual behavioral expectations and of different areas of the classroom.
- **Teaching:** group/individual teaching activities.
- **Functional Routines:** communication structure for daily classroom routines and for students to communicate their wants and needs.

Student Name	Words	Sign Language	Pictures	Speech-Generating Device
David		x	x	

Exhibit 3 - Preference/Motivation Screening Rubric

Use this rubric to get an idea of which the area(s) that is most motivating to the student so they can work for it.

Circle or highlight the best reinforcers/motivators for students given the situations

Student Name _____					
Situations	Attention	Tangible	Escape	Activity	Sensory Stimuli
During free time, the student will choose to	Interact with someone	* Get a toy * Ask for food	Be alone	* Drawing * Playing on the computer	* Playing in the sand/bean box * Self spinning or spin objects
The student is observed to quickly complete a task if he/she is promised	* to eat lunch * to play a game with teacher or a peer	* to eat a snack * to drink a glass of juice	to get a break	* to listen to music * to watch a video	* To play with the water table * To sit in a tight area (e.g., corner, box)
The student may display challenging behaviors if	Teachers talk or praise someone else	The student is refused a snack/drink/toy.	The student is given a challenging task to complete	An ongoing activity is being interrupted or asked to stop.	The student is asked to sit still for a while (which is tolerable to peers).

Exhibit 4 – The A-B-C Chart

Use direct observation to collect data about the interfering behavior.

The **A-B-C** chart helps teachers determine:

- The **A**ntecedent: describe the event that happened right before the target behavior as detailed as possible.
- The **B**ehavior: describe the topography of the behavior such as slapping face or hitting head.
- The **C**onsequence: describe what happens directly after the behavior.

These data provide insight into:

- Why the student engages in challenging behavior.
- When the behavior occurs.
- ➔ This will help teachers recognize the pattern of the behavior in order to select appropriate strategies and the times of the day when these strategies can be implemented to reduce/prevent interfering behavior.

Student Name: _____

Date	Time	A ntecedent	B ehavior	C onsequence	P attern of Behavior	P ossible Function
01/01/19	10:15 am	The teacher asked David to complete a math worksheet.	David slapped his face and cries.	The teacher told him to stop, but he did not, so the teacher moved on to help other students first.	David displays self-injurious behaviors (SIBs) when asked to complete academic tasks.	Escape
01/01/19	1:20 pm	During storytime, the teacher asked David to read the first sentence.	David hit his head and yelled, "No."	The teacher said, "nice hands," and told David that he lost his turn in reading.		
01/02/19	12:30 pm	The teacher was playing ball with another peer during recess.	David hit his head and face while looking at the teacher and peers.	The teacher came and raised his voice with David, "No hitting," and peers laughed.	David engages in SIBs when adults (teacher or teacher aides) are playing with others.	Obtain Attention
01/02/19	9:15 am	During a free time when teacher aide started to play kitchen with some friends.	David slapped his face and hit his head.	Teacher aide came to David and yelled, "I told you, David, no more hitting!" and peers copied, "No more hitting!"		

Exhibit 5 – Create a Behavioral Plan

Based on the possible function of the challenging behavior from the A-B-C chart, the teacher can choose from the following appropriate interventions

Student Name _____	
Function	Suggested Strategies
Escape	<ul style="list-style-type: none"> • Functional Communication Training • Using Learner Preferences • Altering the Environment • Offering choices • Altering Instruction • Task Analysis • Least-to-Most Prompting • High-Probability Request • Reinforcement
Obtain Attention	<ul style="list-style-type: none"> • Sensory Support • Extinction (of interfering behaviors) + Reinforcement (of appropriate behaviors) • Functional Communication Training • Social Stories

Behavioral Plan
(from the "Escape" example in Exhibit 3)

Objective: David will complete an in-class assignment without slapping his face.

Discussion: The possible function of this interfering behavior is to avoid work. This is because when he exhibits SIBs, the teacher attends other students first or leaves him be. This consequence allows him to get out of work for a short period or he might not have to do it at all. Therefore, I will use the following strategies:

Strategies:

- **FCT:** Teach David to ask for a break (which serves the same function as getting out of work but is more appropriate than displaying SIBs) and allow him up to 3 breaks that last 1 minute each during each academic activity.
- **Using Learner Preferences:** using the assignment that contains David's favorite Disney characters, such as having him read the Toys Story book or use a math worksheet that contains Toys Story characters pictures.
- **Altering Instruction:** provide a task analysis that lists all the steps on how to solve the problem.
- **Reinforcement:** use the token board and have David earn 5 minutes of computer (his favorite activity) if he completes his assignment without displaying SIBs.

Objective:

Discussion:

Strategies:

Behavioral Plan
(from the "Attention" example in Exhibit 3)

Objective: David will ask for attention appropriately.

Discussion: The possible function of this interfering behavior is to get attention. This is because when he engages in SIBs (while the adults attend to others), the teacher and peers turned their attention to him (e.g., coming over to him, raising voice with him, and laughing at him). Therefore, I will use the following strategies:

Strategies:

- **Extinction:** ignore the interfering behavior when it occurs.
- **FCT:** About 2 minutes after the occurrence is over, teach David to ask for attention appropriately, such as tapping on other's shoulders or asking friends to join in on an activity.
- **Reinforcement:** since David is an attention seeker, give him lots of social praise (appropriate positive attention) when he displays appropriate replacement behaviors instead of slapping and crying.
- **Social Narrative:** read social stories (e.g., stories about how to ask to join in on a play or how to initiate play appropriately) to David during storytime or free time.

Objective:

Discussion:

Strategies:

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