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Use of Pyramidal Training in a Juvenile Residential Facility: Teaching Staff to Self-Monitor Use of Behavior Specific Praise

Zoe I. Hay

University of South Florida

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Use of Pyramidal Training in a Juvenile Residential Facility: Teaching Staff to Self-Monitor Use of Behavior Specific Praise

by

Zoe I. Hay

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Science in Applied Behavior Analysis
Department of Child and Family Studies
College of Behavioral and Community Sciences
University of South Florida

Major Professor: Kwang-Sun Cho Blair, Ph.D., BCBA-D
Kimberly Crosland, Ph.D., BCBA-D
Raymond Miltenberger Ph.D., BCBA-D

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Keywords: behavior skills training, juvenile justice, staff training, negative interactions

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DEDICATION

I would like to dedicate this study to the research assistants that belong to the company Adapt and Transform Behavior and especially its co-owners, Samantha Fuesy and Emily Kieffer who inspired me to conduct research in within the juvenile justice setting. Thank you for all of those who supported me along the way.
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# TABLE OF CONTENTS

List of Figures .......................................................................................................................... iii

Abstract ........................................................................................................................................ iv

Chapter One: Introduction ........................................................................................................ 1

Chapter Two: Method ................................................................................................................ 6
  Setting ......................................................................................................................................... 6
  Participants ............................................................................................................................... 7
  Supervisor Participants ............................................................................................................ 8
  Supervisor Kemo ..................................................................................................................... 8
  Supervisor Andre ..................................................................................................................... 9
  Floor Staff Participants .......................................................................................................... 10
  Staff Wiley ............................................................................................................................... 10
  Staff Brooks ............................................................................................................................. 10

Materials ....................................................................................................................................... 11
Measurement .............................................................................................................................. 11
  Supervisor Procedural Fidelity ............................................................................................... 11
  BSP and Negative Interactions .............................................................................................. 12
  Behavior Rating Scale ............................................................................................................. 13
  Floor Staff Implementation Fidelity ......................................................................................... 13
  Researcher Procedural Fidelity ............................................................................................... 14
  Social Validity .......................................................................................................................... 14

Data Collection and Interobserver Agreement ......................................................................... 14
Experimental Design and Procedures ......................................................................................... 15
  Baseline .................................................................................................................................... 16
  Supervisor Training .................................................................................................................. 16
  Floor Staff Training .................................................................................................................. 16
  Self-monitoring ....................................................................................................................... 17
  Generalization .......................................................................................................................... 18

Chapter Three: Results .............................................................................................................. 19
  Supervisor Procedural Fidelity ............................................................................................... 19
  Staff BSP and Negative Interactions ...................................................................................... 19
  Behavior Rating Scale ............................................................................................................. 22
  Social Validity .......................................................................................................................... 23

Chapter Four: Discussion ........................................................................................................... 24
References ..............................................................................................................................................................................31

Appendices ..................................................................................................................................................................................36
  Appendix A: Supervisor Interview Questionnaire ..................................................................................................................37
  Appendix B: Floor Staff Interview Questionnaire .................................................................................................................38
  Appendix C: Behavior Skills Training Fidelity Checklist ........................................................................................................39
  Appendix D: Self-monitoring of Delivering BSP ....................................................................................................................40
  Appendix E: Staff Social Validity ...........................................................................................................................................41
  Appendix F: Supervisor Social Validity ..................................................................................................................................42
  Appendix G: Task Analysis for Behavior Specific Praise .........................................................................................................43
  Appendix H: Behavior Specific Praise examples and non-examples .......................................................................................44
  Appendix I: Researcher Fidelity Checklist and Data Sheet during Intervention .................................................................45
  Appendix J: Behavior Rating Scale ........................................................................................................................................46
  Appendix K: IRB Exemption Letter ........................................................................................................................................47
LIST OF FIGURES

Figure 1: Percentage of BST steps completed correctly across supervisors ..................20
Figure 2: Rate of staff BSP and negative interactions across phases and participants........21
Figure 3: Pre-post behavior rating scale data on problem behavior for staff Brooks.........22
ABSTRACT

Juvenile residential facilities are punitive and restrictive limiting youth opportunity to learn and engage in adaptive behavior. Staff training is necessary to reduce the punishment-based behavior management practices that are often in place and to increase reinforcement of appropriate behavior. Pyramidal training is a cost-effective and efficient strategy to train multiple levels of staff of behavior analytic skills. In this study a pyramidal training approach was used to train juvenile residential level 1 staff to deliver training to level 2 staff, using behavioral skills training (BST) procedures and to implement self-monitoring procedures to improve their practices. A multiple baseline across participants design was used to examine the impact of pyramidal staff training on level 1 staff (supervisor) procedural fidelity of delivering training to level 2 staff (floor staff) and on level 2 staff delivery of behavior specific praise (BSP) and negative interactions. Changes in staff’s perception of problem behavior in youth they serve were also examined. The results indicated that the pyramidal training was successful in improving supervisor procedural fidelity of conducting BST and resulted in increases in floor staff’s use of BSP and decreases in negative interactions. Furthermore, the staff’s perceived levels of youth’s junk behavior and major problem behavior decreased as a result.
CHAPTER ONE:

INTRODUCTION

Youth placed in secure juvenile justice settings are categorized as high-risk; these environments are predominately punitive based and restrictive. The repressive setting also limits youth opportunity to learn and engage in adaptive behaviors (Gagnon et al., 2018; Jolivette & Nelson, 2010; Nelson et al., 2009; Sprague et al, 2013). Additionally, youth held in juvenile justice (JJ) settings have often experienced multiple forms of trauma and victimization including physical abuse, community violence, and sexual assault (Ford et al., 2012). The Office of Juvenile Justice and Delinquency Prevention (2016) reported that approximately 45,000 juvenile offenders were held in residential placement facilities in the United States, and per the Florida Department of Juvenile Justice, approximately 3,000 youths were committed to residential facilities in the fiscal year 2017-2018.

Amid the issue of punitive procedures used to manage youth problem behavior is staff turnover. Staff turnover in juvenile correction settings each year is about 20%, and the staff resigning are primarily made up of new hires (Wells et al., 2016). Fiscally, staff turnover can amount to approximately 31,000 dollars per employee (Minor et al., 2011). This is money that is not being allocated to improve the work environment nor the living conditions of the youth (Minor et al., 2011). Furthermore, staff turnover undermines the effectiveness of the overall facility and destabilizes daily operations (Wells et al., 2016).

One result of punitive sanctions favored over reinforcing replacement behaviors is youth recidivism and an overall decrease in facility-wide safety (Nelson et al., 2009). Nelson et al.
(2010) suggested that effective JJ promotes and reinforces desirable behavior and minimizes opportunities for youth to engage in problem behavior. Consequently, there is a need for effective and efficient staff training to differentially reinforce desirable behavior and eliminate problem behavior. Similar to the JJ system, teacher discipline practices often involve punitive responding (O’Handley et al., 2018). Research has disseminated the use of praise in school settings to increase compliance and academic engagement among students. The literature indicates that when praise statements are increased there is a decrease in negative statements or reprimands (Mrachko et al., 2017; Myers et al., 2011; O’Handley et al., 2018). Per Mrachko and colleagues (2017), effective praise has three components; it is contingent on behavior, specific to that behavior, and sincere or credible praise is delivered. Behavior specific praise (BSP) incorporates the three components and is more effective in managing student behavior than general praise (O’Handley et al., 2018). The effects of BSP in the classroom have been identified to be cost effective and a feasible intervention for teachers to implement (Reinke et al., 2007; Lewis-Palmer, & Martin, 2007; Simonsen et al., 2008).

Sprague and colleagues (2013) affirm that adjudicated youth have the same rights to access school as their peers in traditional school systems do. Although secured youth have a right to education, they often have histories of behavioral excesses and noncompliance resulting in academic failure (Jolivette & Nelson, 2010). Furthermore, youth have engaged in school refusal (i.e., youths who engage in problematic absenteeism, and truancy; Jolivette & Nelson, 2010; Kearney, 2007). Students who were identified by teachers to be disruptive were observed to receive little to no BSP (Thompson et al., 2012). Youth in residential placements frequently have diagnoses such as attention-deficit-hyperactivity-disorder (ADHD) and emotional behavior disorder (EBD) (Lively et al., 2019). Therefore, it is hypothesized that youth with EBD and/or
ADHD would be at greater risk of being identified as disruptive and receive an increased rate of reprimands due to their higher frequency of engagement in problem behavior. However, the rate of reprimands can be reduced by increasing the rate of BSP through staff self-monitoring (SM) their use of praise (Simonsen et al., 2013).

Self-monitoring is a nonintrusive way to modify teacher behavior to increase their use of praise (Kalis et al., 2007). Kranak et al., (2017) reported that using SM increases teacher fidelity of praise delivery and increases sustainability of the intervention. Praise is readily available and has been found to be an effective intervention that is often underutilized (Kalis et al., 2007). In an evaluation of effects of self-monitoring methods of tally, rate, and count on teacher behavior specific praise. Simonsen et al. (2013) suggested that that tally and count methods produced the highest rates of BSP and fidelity of implementation. The authors indicated that the teachers preferred using a counting device (e.g., clicker) over hand-written tally marks. Self-monitoring overall has been an effective evidence-based strategy practice and reduce student problem behavior when teacher’s SM their use of BSP with students with EBD (Kalis et al., 2007).

In improving staff performance. Pyramidal training has been used in the literature to improve staff performance, which involves a behavior analyst or trainer to train one level of staff in the designated skill and then train the first level of staff to teach level two staff how to implement the required skill (Page et al., 1982). Pyramidal training reduces the need for a hired staff trainer and reduces the burden of training new hire staff because multiple trainers can teach new staff (Finn & Sturmey, 2009; Maffei-Almodovar, 2018; Nigro-Bruzzi, 2010; Page et al. 1982; Schlosser et al., 2006; Shore et al., 1995). Pyramidal training allows for the training of new staff at a low cost in an efficient and effective manner which is ideal for facilities employing large numbers of staff with high turnover (Maffei-Almodovar, 2018). Andzik and Cannella-Malone
(2017), in a systematic review, reported that pyramidal training was effective in increasing the performance of two levels of staff. In general, pyramidal training has been used to increase treatment fidelity and teach a variety of behavior analytic skills to practitioners (Andzik & Cannella-Malone, 2017; Maffei-Almodvar, 2018).

Behavioral skills training (BST; Miltenberger, 2012) is commonly used in pyramidal literature which involves instructions, modeling, role-play, and feedback. In the literature, BST has been shown to be effective in the naturalistic environment to train two levels of staff to implement behavior analytic procedures (Andzik & Canella-Malone, 2017; Maffei-Almodovar 2018; Parsons et al., 2013; Pence et al., 2012; Van den Pol et al., 1983). For example, Parson and colleagues (2013), trained one level of practitioners who had higher level education using BST to train a second level of staff who had high school diplomas to use BST. The results indicate that pyramidal BST was effective in teaching staff to use BST (Parsons et al., 2013).

In sum, the body of evidence indicates that pyramidal training is cost effective and efficient as discussed by (Andzik & Canella-Malone, 2017; Finn & Sturmey, 2009; Maffei-Almodovar, 2018). However, a review by Andzik and Cannella-Malone (2017), reported that no study documented researcher-implemented fidelity within the levels of training. In addition, only two studies have examined training multiple behavior analytic procedures (i.e., Maffei-Almodovar, 2018; Pence et al., 2012). Subsequently, there is a lack of social validity data reported in pyramidal training research (Andzik & Cannella-Malone, 2017).

Therefore, the purpose of this study was to examine whether the pyramidal training model would be feasible to train multiple staff in a juvenile residential facility to improve their care practices. The study addressed the following research questions: (a) will the pyramidal training be effective in increasing level 1 staff (supervisor) procedural integrity of conducting BST to train
level 2 staff (floor staff) to implement SM and BSP, (b) will the pyramidal training increase floor staff delivery of BSP and decrease negative interactions when interacting with youth, and (c) will staff’s use of SM and BSP lead to changes in their perception of student junk behavior and major problem behavior?
CHAPTER 2:
METHOD

Setting

A high-risk (secure) level juvenile residential facility in a Southeast State served as the setting for this study. The juveniles were incarcerated for varying levels of crimes from misdemeanors to felonies, often with multiple charges (e.g., armed burglary, aggravated assault, violation of probation, etc.). The juvenile residential facility contained 60 beds and hosted a maximum of 60 youth ages 14 to 18, with 43 floor staff, six supervisors, and two assistant facility administrators. Youth’s average length of stay was approximately 1 year but could be held up to 18 months. The facility offered substance abuse treatment services, comprehensive mental health treatment services, and behavior analytic services for youth referred to Board Certified Behavior Analysts for severe problem behavior by youth’s treatment team (e.g., clinical director, facility administrator, judge, or juvenile probation officer). The primary program offered within the facility included the county public school educational services which provided general academic instruction. Youth had the opportunity to earn their general education development by leveling through the program, and if appropriate, given the opportunity to enroll at a community college.

Youth remained in separate dorms in a 1:8 ratio between staff and youth. On average, 12 youth lived in each of the five active dorms. Breakfast and morning medication administration began at 6:45 am and school began at 7:45 am and was scheduled to continue until 1:00 pm. Lunch was held from 11:00am consisting of two dorms at a time eating in the café. Following school, the youth were required to attend daily meeting held in each building for conjoined dorms
to address any comments, questions, or concerns they may have about the state of their dorm.

From 2:30 pm to 4:30 pm youth were mandated to attend group therapy in one of two blocks and were assigned group at the beginning of each day. Following group youth were allotted up to 1 hour of recreation time outside per day.

This study was conducted in classrooms and in youth’s living units (dorms) within the facility. Supervisor and staff training sessions were conducted in an office of the administration building or in a portable that was used for medical management meetings and an art program. Staff’s use of SM was examined during structured academic activity times in classrooms and academic activities in the dorm. Staff were present for all academic instructional time and were expected to monitor youth during this time. On weekdays, academic time occurred approximately 7:00 am to 1:45 pm. The facility designated seven rooms to serve as classrooms which contained approximately eight desks. The classrooms contain a white board or chalkboard, bookshelves, and three desktop computers.

Participants

Two levels of staff in the juvenile residential facility were recruited to serve as participants. Two supervisors made up level 1 staff participants who oversaw daily operations and directly contacted youth and floor staff, and level 2 staff consisted of two floor staff who were responsible for the direct care of the juveniles. The inclusion criteria for both the first level and second level staff included: (a) holding a minimum of high school diploma, (b) having completed the mandatory 1-hour behavior tools training provided by a behavior analyst upon hire date, and (c) having no experience using SM procedures.

For recruitment, the facility administrator and assistant facility administrator distributed a flyer via email, and the flyer was posted in the administration office to reach staff who did not
have a company email. Staff who were interested in participating in the study contacted the researcher electronically or in person. After the staff were deemed eligible to participate in the study, the researcher conducted an interview using a questionnaire (Appendix A or B), developed by the researcher, specific to the participants’ experience and role within the residential facility (i.e., supervisor or floor staff). Information asked included (a) level of education, (b) time spent working in the JJ system, (c) job description and role working in the JJ system, (d) behavior management procedures currently utilized by staff, (e) types of problem behavior youth currently engage in, and (f) types of appropriate behavior staff would like to see youth engage in more. The interview was conducted at the staff’s convenience in an available office in the administration building, the conference room, or sub-control of a dorm.

**Supervisor participants.** Two supervisors served as level 1 staff participants. The supervisors did not have experience with using a systematic method of training for staff to use behavior analytic tools. Their primary focus of floor staff training, and supervision was helping staff use crisis management procedures to deescalate problem behavior and follow through with consequences (e.g., write-ups for major problem behavior). Write-ups were similar to referrals in the school setting; however, problem behavior was severe in intensity. For example, property destruction to receive a major write up was minimally $50 worth of damage and may exceed $1,000 in damage. The supervisors also focused on floor staff’s utilization of the point sheets (e.g., implementation of the facility-wide token economy). Youth were required to meet the criterion for earning points on the token economy per time period by receiving a 0, 1, or 2 according to their behavior.

**Supervisor Kemo.** Supervisor Kemo held an Associate Degree in Criminal Justice and had worked in the JJ system for 18 years and maintained a supervisory role for approximately 11
years. Kemo also worked in all levels of security from moderate, high, to max risk. One facility he worked in included a dual diagnosis program which included youth with mental health diagnosis and substance abuse disorders. Kemo reported that he found training staff on behavior analytic tools (e.g., redirection, pivot praise, token economy) to be challenging. He reported that youth problem behavior primarily involved noncompliance with rules and regulations of the facility. He stated that he delivered praise to youth occasionally for good behavior; but most often only engaged in negative interactions in response to inappropriate behavior from youth. However, Kemo focused on facilitating floor staff to use point sheets (i.e., facility token economy). The youth’s problem behavior that Kemo was hoping to see less included confronting staff by physically touching them, using excessive profanity, disrespect, and noncompliance. Appropriate behavior he was hoping to see more in youth was offering to help staff and peers and attendance in school.

**Supervisor Andre.** Supervisor Andre had an Associate Degree in Human Services who was planning to apply for a bachelor’s in psychology or social work. He had worked with youth for 18 years implementing trauma informed care for youth who had histories of experiencing physical and sexual abuse in addition to engaging in severe problem behavior, and youth who had a developmental disability. Additionally, Andre had worked in a supervisory role for approximately 14 years. He reported that he felt “Okay” in delivering supervision checks with floor staff completing the appropriate protocol that followed the behavior management system in place (e.g., token economy) at the facility. Andre focused on staff’s management of youth behavior with respect. He considered respect to be the most important characteristic to maintain with staff and youth. Supervisor Andre reported that the most problematic youth’ behaviors were aggression towards others, verbal aggression, property destruction, self-injurious behavior,
negative self-talk, and threats to harm oneself. Appropriate behavior supervisor Andre was hoping to see more in youth were “Positive language with peers using appropriate verbiage, improved independent living skills, and an increase in youth effectively communicating their wants and needs.”

**Floor staff participants.** Three floor staff who were supervised by the participating supervisor and who directly interacted with youth providing care to the youth in classrooms and in dorms participated in the study. The staff had various backgrounds, levels of education, and experience working in the JJ system. They had varying strategies to manage youth behavior; however, communicating with the youth, utilizing the token economy, and following through with consequences was listed as most important among all participating staff.

**Staff Wiley.** Staff Wiley had a Bachelor of Arts in Biochemistry and had worked in the JJ system as a youth care worker for approximately one year at the facility in which the study was conducted. She reported her way of managing youth behavior was to use the point sheets (e.g., token economy), referrals, and group meetings to acknowledge in front of the group positive and negative behaviors. Wiley also reported delivering praise and extra points for positive behaviors was the primary way to reward youth for good behavior. When managing inappropriate behavior, Wiley would often have negative interactions with the youths and then documented youth’s problem behavior on the point sheet to hold them accountable. Appropriate behavior Wiley wanted to promote in youth was mentoring peers (e.g., talking another youth out of acting out). The problem behavior she wanted to reduce was disrespect and climbing onto the roof.

**Staff Brooks.** Staff Brooks is was an assistant supervisor on shift and held a high school diploma. She had approximately 2 years of experience as a youth care worker employed within the facility the study was conducted. Her primary behavior management style was to have youth
engage in activities with each other and take turns (e.g., taking turns choosing music and movies in the dorm). In addition, Brooks liked to hold group meetings with the youth so that the group had an opportunity to talk about issues and experiences amongst each other. Brooks preferred to utilize extra points on the point sheet to reward youth’s appropriate behavior and have group incentives for the entire dorm. Brooks reported the way to manage youth’s inappropriate behavior was to redirect youth to communicate, utilize verbal’s (e.g., talk to the youth) if a youth began to tantrum, call staff assistance, and hold them accountable through the point sheet and referral system. The problem behavior Brooks identified that the youth engage in are kicking doors, arguing, inappropriate comments about staff, threats towards property, and going out of area (e.g., leaving designated supervision area). Appropriate behaviors Brooks would like to see more of was appropriate conversations and youth helping their peers by they themselves being “positive peers.”

**Materials**

Level 1 and level 2 staff had access to training packets provided by the researcher post baseline which included the task analysis (TA) of using BSP, BSP example and non-example sheet, and the BST Fidelity Checklist. Level 2 (floor) Staff carried golf-counters to monitor their use of BSP during self-monitoring. The researcher and research assistants had access to data sheets and the application Countee© to record the frequency of BSP and negative interactions delivered by staff.

**Measurement**

**Supervisor procedural fidelity.** The primary dependent variable of the study was supervisor procedural fidelity on implementing BST with floor staff. The BST steps implemented correctly by supervisors to train the floor staff were measured to assess supervisor procedural
fidelity in both baseline and intervention phases. The percentage of correct implementation was calculated based on 5 components of the BST (see Appendix C for BST Fidelity Checklist): (a) provided instructions: delivered the task analysis for BSP and accurately defined BSP, (b) modeled the procedure with an example, (c) provided an opportunity for the trainee to rehearse the procedure when given a scenario, (d) provided positive and corrective feedback, and (e) repeated BST procedure until mastery criteria (2 consecutive rehearsals at 100%). These five components were broken down to 12 smaller steps to score staff integrity.

**BSP and negative interactions.** The secondary dependent variables of this study were the responses (per min) of BSP and negative interactions delivered by floor staff when interacting with youth, which were recorded by observers using the Countee© application. Behavior specific praise was defined as verbally describing the youth’s appropriate behavior using a neutral to positive tone of voice, body language, and facial expression. Facial expressions and body language could include but was not limited to a smile and body oriented towards the youth (e.g., “Good job, for coming onto the dorm when asked”, “I like how you handled that disagreement verbally”). Delivering praise with a frown, crossed arms, or praising maladaptive behavior sarcastically was excluded from the definition (e.g., “Great job for breaking the TV”).

Negative interactions included any use of criticism, sarcasm, threats, and arguing with youth. Criticism included pointing out a mistake or fault, or putting a youth down (e.g., Smith when you learn to talk and not stutter, I might listen to you”). Sarcasm included statements that were not genuine which may or may not make fun of the youth (e.g., “Thank Smith for breaking the T.V, you’re really smart.”). Threats were a warning delivered by staff that punish the youth that would not be followed through with (e.g., “If you go out of area again you will be on freeze [punishment for out of area would include additional time added to your sentence] for the next
year”). Arguing was defined as any attempt to force the youth to agree and respond to any objection, such as when a youth responds with saying, “No, I did it yesterday.” as demand is placed, telling the youth to clean up and responding with “You should help clean every day,” and continuing the back-and-forth talk with the youth (Crosland and colleagues 2008).

**Behavior rating scale.** As a supplementary measure, a behavior rating scale (BRS), created by the researcher, was used to examine changes in staff perception of youth junk behavior and problem behavior. The BRS allowed staff to rank junk and problem behavior on a 1-5 scale from infrequently (2 or less instances) to constantly (10+ instances). Junk behavior listed in the scale included excessive profanity or engaging in 3 or more instances of profanity within 30 seconds, name calling peers or teachers, banging on property (e.g., door kicking), and verbal threats to harm self, others, or property. Major problem behavior was also listed, and staff were asked to rank the frequency of youth engaging in aggression towards others (including horseplay), property destruction, and out of area (e.g., breaching safety and security by moving out of direct supervision from direct caretaker staff). For the purpose of the study, individual youth’s names were not identified, and staff were asked to rate their perceived frequency of junk and problem behavior as an average that occurred during each class period. The staff’s rating of junk behavior and problem behavior were collected at the end of baseline and at the end of intervention phase.

**Floor staff implementation fidelity.** The fidelity of implementing SM of BSP procedures implemented correctly by floor staff was assessed by comparing staff recorded frequencies of BSP, which were initially tallied using a golf-counter and then permanently recorded on a SM data sheet, to the research team recorded frequencies of BSP using the Countee© application during each intervention session. Staff’s fidelity of implementing SM averaged 83% (range 76% - 89%) across staff Wiley and Brooks.
**Researcher procedural fidelity.** Researcher procedural integrity was assessed on the researcher’s use of BST procedures to train supervisors. The same procedural fidelity checklist for BST used for assessing supervisor procedural fidelity was used to assess researcher procedural fidelity. The percentage of BST implemented correctly was calculated based on the total number of BST components. The researcher procedural fidelity was 100% in all training sessions.

**Social validity.** Social validity of the pyramidal training was be assessed with both supervisor and floor staff groups using separate anonymous questionnaires (Appendix E and Appendix F) developed by the researcher and distributed at the conclusion of the study. Both questionnaires were rated on a 6-point Likert scale (strongly disagree to strongly agree). The supervisor’s social validity questionnaire contained 7 items and designed to evaluate the supervisors’ perceived acceptability of the BST procedures used by the researcher to train them to use BST procedures. In addition, the social validity evaluated their level of acceptability of using BST with floor staff. Similarly, the social validity questionnaire for floor staff included six items and assessed whether the staff found self-monitoring acceptable, effective, and easy to implement. The questionnaires took approximately 10 min to complete and were submitted in mailbox found in the administration building in which all staff had access to.

**Data collection and Interobserver Agreement (IOA)**

Data on staff delivery of BSP and negative interactions were collected during 10- to 15-min observation sessions. To assess IOA accurately, frequency within interval system was used in collecting the data. Observers recorded the number of BSP, and negative interactions delivered by staff every 5 min during the observation session using the application Countee©. The IOA on BSP and negative interactions was assessed across all study phases and participants, including generalization for an average of 35% (range = 20%-50%) of all sessions. IOA was taken for 20%
of staff Brooks’ treatment sessions. The researcher was the primary observer and three research assistants, graduate students in the Applied Behavior Analysis Program, were trained using BST to collect data on staff BSP, negative interactions and procedural fidelities.

For BST and negative interactions, IOA was calculated for each 5 min interval data by dividing the smaller of the two observers’ frequency counts by the larger frequency count and multiplying by 100. Mean IOA was calculated to report IOA across behaviors, phases, and participants. IOA on procedural integrity was calculated using an item-by-item method comparing the researcher’s recorded procedural integrity data and research assistant-recorded integrity data. All BST sessions conducted by staff and researcher were video recorded and at least 43% of the videos were scored by an independent observer for IOA assessment.

In baseline, the mean IOA for staff’s delivery of negative interactions and BSP across staff was 89% (range = 82% - 100%) for negative interactions and was 99% (range = 96% - 100%) for BSP. For Wiley, IOA averaged 69% (range = 35% - 100%) for negative interactions and 96% (range = 83% - 100%) for BSP. For Brooks, IOA on BSP averaged 100% (range = 100% - 100%) and 86% (range = 72% - 100%) for negative interactions. IOA on supervisor procedural integrity was 100% for both supervisors in all baseline and intervention sessions. For staff implementation fidelity, IOA was 100% for negative interactions across all staff members, and for BSP, IOA was 92% for Wiley and 100% for Brooks. For the researcher’s procedural integrity, IOA was 100% across all sessions.

**Experimental Design and Procedures**

A multiple baseline across participants design was used to evaluate the intervention outcomes. Generalization probes were conducted in each baseline and intervention phase to
examine floor staff’s implementation of self-monitoring procedures and changes in BSP and negative interactions.

**Baseline.** For supervisor procedural fidelity in baseline, data were collected during which the researcher asked the supervisor to teach the researcher to use BSP. Baseline data on floor staff delivery of BSP and negative interactions were collected during instructional time within the classroom setting for a minimum of two days per week until stable patterns were established. Behavior rating scales on youth behavior were completed by floor staff at the end of baseline. During baseline, the typical classroom activities were provided as usual during which ongoing facility-wide management strategies are used (e.g., token economy, redirection, and restraints).

**Supervisor training.** Following baseline, the supervisors participated in individual training. The researcher used the BST Fidelity Checklist (Appendix C) to provide pyramidal training on BST to supervisors which focused on how to train floor staff on self-monitoring of BSP. The researcher provided training to each supervisor at their convenience for approximately 30 min or until the supervisor demonstrated 100% accuracy on the skills for three consecutive BST sessions, which involved role-playing scenarios until BST was accurately demonstrated for two consecutive trials within each BST session according to the task analysis (TA) of BST (Appendix C). It is important to note that after each BST session was conducted by the supervisor that they were allowed to ask the researcher questions; however, no additional BST sessions took place with the researcher training the supervisor.

**Floor staff training.** Following supervisor training, floor staff participated in individual training, provided by their supervisor, on how to use BSP during interaction with youth. Supervisors provided their trainees with examples of BSP, non-specific praise, and negative interactions during training (Appendix E) and used the TA of BSP. The TA of BSP (Appendix G)
consisted of five steps: (a) tell the youth the behavior they are engaging in is appropriate; (b) provide praise with 5 s of recognizing the youth’s behavior is appropriate; (c) be sincere, use appropriate facial expressions (e.g., smile), tone of voice, and body language as defined; (d) ignore junk behavior by not reacting physically or verbally; and (e) click the counter every instance you use behavior specific praise. Junk behavior included behaviors that can be tolerated and are not causing distress to the individual or others and were not detrimental to the environment. Examples of junk behavior are excessive profanity, verbal threats, name calling, and inappropriate non-verbal behavior. The supervisors used BST procedures taught by the researcher to train floor staff. The staff received individual training at their convenience for approximately 45 min or until they demonstrated 100% accuracy over the skills for three consecutive BST sessions.

**Self-monitoring.** Following training of each supervisor and floor staff, SM was implemented. Before implementation of SM, each floor staff set goal levels of BSP improvement based on staff’s baseline level. Once each staff’s goal was set, staff self-monitored their use of BSP when interacting with youth during a predetermined 10-15 min target and generalization time periods. The mean goal level to implement BSP across both participants was .20 responses per minute. Each goal was set individually with staff Wiley and Brooks based on their perceived ability to deliver BSP within the environment. Staff were expected to have the SM counter ready and to record each instance of BSP delivery. At the end of each session, staff transferred the number of BSP on their counter to the SM fidelity checklist sheet to self-assess their procedural fidelity and for the research team to assess the staff’s procedural fidelity. Data were collected for a minimum of two sessions per week for up to 3 weeks during the targeted time period until a stable pattern was observed over the course of three consecutive sessions. Data were collected in
school classrooms except two intervention sessions (sessions 5 and 6) for staff Wiley and all three sessions for staff Brookes. During these sessions, the instructional activities occurred in the dorm setting because of compromised safety and security issues within the residence due to facility-wide construction. Therefore, youth were unable to be safely moved from one building to the next without the risk of youth breaching security measures (e.g., picking up potentially dangerous construction debris or tools, bolting through open gates, and distracting staff to enable other youth to elope, and or accumulate dangerous items). Throughout construction all youth remained on limited movement in which they were not allowed to leave the dorm without a one-to-one physical escort.

**Generalization.** Generalization probes were conducted in both baseline and intervention conditions with one staff. The generalization effects were examined by collecting probe data during a non-targeted setting (unstructured leisure activity time in the dorm) to determine whether staff was using the SM procedures and whether their use of the procedures were impacting their delivery of BSP and negative interactions and youth behavior.
CHAPTER THREE:
RESULTS

Supervisor Procedural Fidelity

Figure 1 displays the percentage of BST components completed correctly by supervisors. In baseline during which supervisors were asked to train the researcher to use BSP without receiving training from the researcher, their procedural fidelity averaged 15%. Supervisor Kemo averaged 0% across all three baseline sessions. Supervisor Andre averaged 11%. After receiving training, Kemo reached 100% fidelity in training floor staff Wiley for three consecutive sessions. Initially, Andre trained staff Brooks with 75% fidelity in session 10; however, in the subsequent three sessions Andre reached 100% fidelity consecutively when training staff Brooks.

Staff BSP and Negative Interactions

Figure 2 displays data on rates of BSP and negative interactions in BL and intervention across two floor staff participants which demonstrate the association between staff behavior and self-monitoring. During baseline, the results show that floor staff engaged in near zero rates of BSP. Negative interactions across all floor staff averaged 0.38 (range = 0.06 – 1.1), showing an increasing trend in BL. When SM was implemented, an increase in level of BSP occurred. Rates of BSP averaged 0.32 (range = 0.31- 0.33) and exceeded each individualized goal (0.20) for both staff Wiley and Brooks. Furthermore, rates of negative interactions decreased to near zero rates.
Generalization probes taken in a novel setting within the facility indicated increases in their delivery of BSP and decreases in negative interactions for staff Brooks.
Figure 1. Percentage of BST steps completed correctly across supervisors.
Figure 2. Rate of staff BSP and negative interactions across phases and participants. The horizontal line across the SM phase indicates the BSP goal level set individually by staff. Note: *Indicates data collected during academic time in the dorm.
Behavior Rating Scale

Figure 3 displays the supplementary data on staff’s perceived report of frequency of junk behavior and major problem behavior. Before SM intervention, junk behavior was rated at variable frequencies, ranging from a 2 on the BRS to 2 ($M = 2$) for staff Wiley, and from 4 on the BRS to 1 ($M = 2.25$) for staff Brooks. Major problem behavior was rated to occur at variable rates; staff Wiley and Brooks reported that aggression occurred five or more times during a session which included horseplay. Brooks reported that leaving designated supervision or out of area occurred constantly in a session whereas Wiley reported that property destruction occurred three to four times during session. At post intervention, staff Brooks rated junk behavior door kicking and profanity as decreased and major problem behavior aggression and out of area significantly. Aggression was reduced from frequently to infrequently and out of area decreased from constantly to infrequently.

![Staff Brooks Behavior Rating Scale](image)

*Figure 3. Pre-post behavior rating scale data on problem behavior for staff Brooks.*
Social Validity

Social validity was assessed with Supervisor Andre. Supervisor Kemo was unable to return the social validity survey due to job relocation. The supervisor Andre indicated that he agreed across all social validity questions with a mean score of 5.0 out of 6. Floor staff Wiley did not return the social validity sheet to the researcher. Staff Brooks social validity indicated that she strongly agreed with the SM intervention and was pleased to participate in the study; with exception she would not like to continue using the SM counter. Anecdotally, she stated that it was difficult to keep all restricted items away from the youth (e.g., keys, radio, and counter). The overall floor staff social validity averaged 5.6 out of 6.
CHAPTER 4
DISCUSSION

The purpose of this study was to examine the use of pyramidal training approach in training two levels of JJ system staff to improve care practices for youth served in the facility. The focus was training level 1 staff (supervisors) to use BST procedures to train level 2 staff (floor staff) to use SM procedures for the purpose of increasing BSP and decreasing negative interactions among them when working with the youth they serve. The results revealed that the pyramidal training was successful in training level 1 staff to conduct BST with high levels of fidelity in training level 2 staff to self-monitor delivering BSP during interactions with youth. The data clearly showed that the first level staff used the BST procedures correctly to train the second level staff to accurately implement evidence-based SM procedures, which resulted in increases in BSP and decreases in negative interactions among the second level staff. Furthermore, the staff’s perceived levels of youth’s junk behavior and major problem behavior decreased as a result. Anecdotally, there was an observed reduction in youth’s problem behavior which might be due to decreases in negative interactions and increases in staff use of BSP. The decreases observed in negative interactions may have been due to differentially reinforcing appropriate behavior through the use of BSP and attention seeking problem behavior being put on extinction. Future research could benefit from collecting data on the functions of the participants’ problem behavior to determine whether the effectiveness of BSP is dependent on behavioral function, particularly attention from staff. Furthermore, future research could collect data on different types of negative interactions that occur between staff and youth (e.g., reprimands, sarcasm, criticism, threats) to
determine whether one type of negative interaction is more likely to evoke problem behavior than another.

The goal levels chosen by staff were lower than research has reported; however, this intervention was implemented in a novel setting that encounters numerous difficulties in operation and severe problem behavior. The goal level was chosen as a best fit for the staff in a difficult setting to increase the likelihood that the intervention would be implemented to fidelity, and that the intervention would continue to be used upon the conclusion of the study which is ultimately the goal of an effective intervention. It is important to take staff input when developing and implementing interventions they are expected to be responsible for. It is paramount to keep in mind the importance of social validity when conducting research and developing interventions.

This study extends previous study on pyramidal staff training (Pence et al., 2012; Parsons et al., 2013) by demonstrating that using BST by level 1 staff led to improvement in level 2 staff’s use of BSP and reduction in negative interactions in JJ. Furthermore, the current study adds to the current research base in pyramidal staff training by evaluating the correct implementation of five components of BST procedures by level 1 staff as a dependent variable using a multiple baseline design.

The results of the study suggest that pyramidal training may be an efficient and cost-effective approach when training staff to use evidence-based practices (Maffei-Almodvar, 2018). In this study, the pyramidal training model was used to determine whether the pyramidal training would be a feasible model in training more than one level of staff. The researcher directly trained two level 1 staff members (supervisors) to help them train their floor staff to use evidence-based practices. As suggested in the literature (Finn & Sturmey, 2009; Nigro-Bruzzi, 2010; Shore et al., 1995), the results of the current study indicate that pyramidal training may eliminate the need to
hire additional staff trainers or consultants to train staff in various settings where youth with EBD are served (Lively et al., 2019).

The results of the study also extend the previous research on staff use of evidence-based self-monitoring procedures to increase frequency of BSP in managing student behavior (Kalis et al., 2007; Simonsen et al., 2013). The level 2 staff’s self-monitoring procedures were sufficient to increase their use of BSP and reduce negative interactions in the form of criticism, threats, and sarcasm when interacting with youth, indicating that promoting staff to use BSP can decrease in negative statements delivered to youth (Mrachko et al., 2017; Myers et al., 2011; O’Handley et al., 2018). All staff engaged in low and stable rates of BSP during baseline. For staff Wiley and Brooks, the rates of negative interactions showed an increasing trend while BSP remained at near zero rates within the baseline phase. Once pyramidal BST was implemented, and SM was introduced, the rates of BSP increased above the goal level that was selected by each staff. Additionally, negative interactions decreased to near zero rates. Similar to the results from school-based research, negative interactions decreased when SM and BSP were implemented (Simonsen et al., 2013). However, staff Wiley’s BSP showed a decreasing trend during the later sessions in intervention, which might have been due to changes in the setting. During intervention, facility-wide renovations began to take place. The outdated buildings and unsecure rooftops allowed youth to engage in climbing and major property destruction. The renovations occurred across all buildings limiting the entire facility people including youth from moving around the facility. The risk in moving youth without a one to one physical escort included youth obtaining dangerous items (e.g., razor wire, screws, tools, etc.), and increased opportunity to elope from the facility due to unsecure gates.
Due to the facility’s high-risk level of security it was not feasible to gather intervention data further during renovations as the juvenile residential facility deems safety and security. As a result of all youth’s limited movement (e.g., inability to go outside) youth engaged in higher rates of property destruction, and aggression. This may have positively punished staff behavior in placing demands such as schoolwork on the youth; the removal of schoolwork perhaps negatively reinforced youth’s problem behavior that could be presumed to be escape maintained.

The results also indicate that improvement in staff care practices may have produced positive collateral effects on youth problem behavior as evidenced by BRS data. Staff Brooks reported two meaningful changes in major problem behavior (i.e., out of area and aggression) and rated that the youth’s junk behavior (e.g., door kicking and excessive profanity,) reduced as a result of the intervention, which was important because the youth with EBD in the juvenile residential facility often engaged in socially inappropriate and maladaptive behaviors at high rates. While these behaviors were considered minor problem behavior and labeled junk behavior in this segregated environment, they would not be accepted in a typical school environment. Additionally, aggression and out of area considerably problematic in this environment due to the risk of safety and security.

Although the youth’s behaviors were not directly measured, it appeared that staff could minimize opportunities for youth to engage in problem behavior by differentially reinforcing alternative behaviors as Nelson et al. (2010) suggested. Considering that the youth with EBD in the typical restricted JJ system are in an environment that has traditionally been punitive and restrictive (Sprague et al., 2013), the results of the current study is encouraging in that the staff implemented a cost-effective and efficient BSP to improve youth behavior (Lively et al., 2019).
The decrease in staff coercive and punitive verbal interactions with youth may have provided opportunities for youth to engage in appropriate behaviors.

Although the results are encouraging, there are a few limitations to consider when interpreting the data. The first limitation is the limited demonstration of experimental control, which was caused by staff turnover and unexpected incidents. Only two supervisors participated in the study and staff Wiley’s BSP showed a decreasing trend in later intervention sessions. In addition, data were collected in only three sessions with staff Brooks. Staff turnover was present during throughout the course of the study. Initially, four supervisors were interviewed after expressing interest in participating in the study; however, only two remained part of the research. Shortly after training with Supervisor Kemo, he resigned, and the researcher was unable to collect social validity data from him. Similarly, six floor staff contacted the researcher being interested in participating in the study; however, only three consented to be involved in the study after reviewing the informed consent. The initial two staff who did not participate in the study had since resigned from youth care worker positions. Although three staff members participated in the study, data collection sessions were often cancelled due to crisis situations and the staff’s unavailability, which prevented collecting a sufficient number of intervention data points to demonstrate experimental control.

During intervention there was an increase in new intakes within the facility and the participating staff were often not available to implement the SM and BSP procedure due to handling youth who engaged in problem behavior prior to school. Overall, the high rate of staff turnover and the staff’s frequent unavailability in the classroom destabilized the facility’s ability to carry out day to day functions (Wells et al, 2016), which adversely affected conducting the
study. Future research should examine the use of pyramidal training in the JJ setting with a greater number of supervisor and staff members for an extended intervention duration.

In addition, future researchers who are interested in conducting research in JJ facilities should consider other factors that may interfere with the study process including data collection. It is important to note that publicly funded schools within the JJ system do not have access or adhere to typical accommodations that a typical school may have. For example, in a typical school a bell rings and students move from class to class. In contrast, in the particular JJ residential facility, short staffing and turnover may lead to youth being held within classrooms for shorter or longer periods of time dependent on the frequency, intensity, or duration of problem behavior engaged in by other youth’s that occur throughout the school day. Thus, routine and scheduling may result in data collection happening over various times throughout the school day.

The second limitation is there was no direct measure of youth behavior as mentioned earlier, and the BRS data were collected only at two points in time (pre and post). Thus, we are unable to draw conclusion of the collateral effects of the pyramidal training on youth behavior. Thus, future research should examine the functional relation between the pyramidal staff training and youth behavior directly measuring the youth behavior and using a single subject design. The third limitation is the limited evaluation of generalization effects. The generalization data in intervention were collected with only one staff due to unexpected incidents in the dorm setting.

The fourth limitation is low levels of IOA on BSP and negative interactions for staff Wiley which might have occurred due to noise during data collection sessions. Due to noise, not all instances of BSP and negative interactions delivered by staff were captured sometimes having difficulty in hearing the staff’s statements in varying activities. The inability to hear the staff
speaking to youth may indicate the low levels of IOA during each phase of the study, in particular, data on generalization probes conducted within the dorm.

In conclusion, despite the growing body of literature on pyramidal staff training, limited research has been conducted in the JJ setting. Regardless of the limitations, this study demonstrated that pyramidal training may be an effective way to improve care practices in the JJ setting. Pyramidal training could be used in three levels; from facility administrator to supervisors and to youth care workers or floor staff across the staffing hierarchy to train staff to effectively prevent and address problem behavior in youth and promote positive care practices within the JJ facility.
REFERENCES


Appendix A: Supervisor Interview Questionnaire

Supervisor Interview Questionnaire

1) What is the highest level of education you have currently hold? And if you hold a degree what is the degree?

2) How long have you worked in the juvenile justice system?

3) How long have you worked in a supervisory role?

4) Do you feel competent in delivering behavior analytic training to floor staff?

5) How do you manage behavior of the youth on your shift?

6) How do you reward your floor staff for doing a good job managing youth behavior? (e.g., verbal praise statements, token economy) Please explain in detail and provide examples.

7) How do you handle your staff engaging in inappropriate behavior? (e.g., corrective verbal feedback, response cost) Please explain in detail and provide examples.

8) How often would you say you praise your staff?

9) How often would you say you praise the youth?

10) What types of problem behaviors do youth engage in?

11) What are the behavior management strategies currently in place (e.g., token economy, levels system)?

12) What kinds of appropriate behavior would you like to see more of? What would you like to see less of?
Appendix B: Floor Staff Interview Questionnaire

Floor Staff Interview Questionnaire

1) What is the highest level of education you have currently have? And if you hold a degree what is the degree?

2) How long have you worked in the juvenile justice system?

3) How do you manage behavior of the youth on your shift?

4) How do you reward your youth for doing a good job? (e.g., verbal praise, token economy) Please explain in detail and provide examples.

5) How do you handle your youth engaging in inappropriate behavior? (e.g., corrective verbal feedback, response cost) Please explain in detail and provide examples.

6) How often would you say you praise the youth?

7) What types of problem behaviors do youth engage in?

8) What kinds of appropriate behavior would you like to see more of? What would you like to see less of?
### Appendix C: Behavior Skills Training Fidelity Checklist

**Behavior Skills Training Fidelity Checklist**

<table>
<thead>
<tr>
<th>Procedure: Behavior Specific Praise</th>
<th>Trainee Name:</th>
<th>Date:</th>
<th>Training Session:</th>
<th>Correct = (+)</th>
<th>Incorrect = (-)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Instructions</strong></td>
<td></td>
<td></td>
<td></td>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>1. Gave trainee task analysis of delivering BSP</td>
<td></td>
<td></td>
<td></td>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>2. Accurately defined BSP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Model</strong></td>
<td></td>
<td></td>
<td></td>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>3. Verbally gave an example of the BSP statement. “Smith, great job listening and coming onto the dorm”</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Role Play / Rehearsal</strong></td>
<td></td>
<td></td>
<td></td>
<td>4.</td>
<td></td>
</tr>
<tr>
<td>4. Trainer gave a scenario of using BSP</td>
<td></td>
<td></td>
<td></td>
<td>5.</td>
<td></td>
</tr>
<tr>
<td>5. Trainer asked trainee to rehearse implementing BSP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Feedback</strong></td>
<td></td>
<td></td>
<td></td>
<td>6.</td>
<td></td>
</tr>
<tr>
<td>6. Trainer immediately provided feedback on one thing the trainee did correctly</td>
<td></td>
<td></td>
<td></td>
<td>7.</td>
<td></td>
</tr>
<tr>
<td>7. <em>Trainer then provided feedback on what the trainee could do better (if anything)</em></td>
<td></td>
<td></td>
<td></td>
<td>8.</td>
<td></td>
</tr>
<tr>
<td>8. <em>Following corrective feedback, the trainer praised the trainee for what they did well</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Training to Criterion:</strong> Mastery 100%: (2) consecutive sessions**</td>
<td></td>
<td></td>
<td></td>
<td>9.</td>
<td></td>
</tr>
<tr>
<td><em>Steps 1-6 completed correctly by trainee: No corrective feedback was necessary</em></td>
<td></td>
<td></td>
<td></td>
<td>10.</td>
<td></td>
</tr>
<tr>
<td>9. Instructions were repeated until the trainer no longer needed corrective feedback and criteria was met</td>
<td></td>
<td></td>
<td></td>
<td>11.</td>
<td></td>
</tr>
<tr>
<td>10. Role plays were repeated until corrective feedback was no longer needed, and criteria was met</td>
<td></td>
<td></td>
<td></td>
<td>12.</td>
<td></td>
</tr>
<tr>
<td>11. Trainer provided feedback until the trainee no longer needed corrective feedback and criteria was met</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Trainer thanked trainee for completing behavior skills training</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Percentage of steps correct:  
\[
\frac{____}{____} \times 100 = ______
\]

Total # of steps correct (+)  
__________________________

Trainer Initial: __________________  
PI Signature: ____________________  
IOA RA Signature: __________________ / Date: ______

40
Appendix D: Self-monitoring of Delivering BSP

Self-monitoring of Delivering BSP

Date:

<table>
<thead>
<tr>
<th>Staff Initials:</th>
<th>Researcher Initials:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start time:</td>
<td>Goal: <em><strong>/</strong></em></td>
</tr>
<tr>
<td>Stop time:</td>
<td></td>
</tr>
<tr>
<td>Frequency of behavior specific praise statements delivered</td>
<td>Total # <strong><strong>/</strong></strong> min (observation session length) = _____ per min</td>
</tr>
</tbody>
</table>

*Did I meet the goal listed above? Yes or No*

Signature:(Initials ONLY) ________________________
Appendix E: Staff Social Validity

Staff Social Validity

Please circle the number that best describes your agreement or disagreement with each statement using the scale below.

<table>
<thead>
<tr>
<th></th>
<th>1= Strongly disagree</th>
<th>2= Disagree</th>
<th>3= Slightly disagree</th>
<th>4= Slightly agree</th>
<th>5= Agree</th>
<th>6= Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Self-monitoring was helpful to increase my frequency of behavior specific praise statements.</td>
<td>1 2 3 4 5 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Group public posting was an acceptable way to increase the delivery of behavior specific praise.</td>
<td>1 2 3 4 5 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>I would recommend this training to other staff.</td>
<td>1 2 3 4 5 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>I found it was easy to self-monitor my use of behavior specific praise.</td>
<td>1 2 3 4 5 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>I would like to keep using the self-monitoring clicker.</td>
<td>1 2 3 4 5 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>I am pleased that I participated in this study.</td>
<td>1 2 3 4 5 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix F: Supervisor Social Validity

Supervisor Social Validity

Please circle the number that best describes your agreement or disagreement with each statement using the scale below.

<table>
<thead>
<tr>
<th></th>
<th>1= Strongly disagree</th>
<th>2= Disagree</th>
<th>3= Slightly disagree</th>
<th>4= Slightly agree</th>
<th>5= Agree</th>
<th>6= Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I learned to perform behavior specific praise.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2.</td>
<td>I learned how to train staff members using behavior skills training.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3.</td>
<td>I learned to model behavior specific praise.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4.</td>
<td>I learned to role play scenarios using behavior specific praise.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5.</td>
<td>I found that behavioral skills training a helpful method of teaching my staff to use behavior specific praise.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6.</td>
<td>The training was easy to teach staff.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7.</td>
<td>I liked this training method to teach my staff.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Appendix G: Task Analysis for Behavior Specific Praise

**Task Analysis for Behavior Specific Praise** (adapted from Tool 2: Use Reinforcement [Crosland et al., 2008])

1. Tell the youth the behavior that is appropriate that they are engaging in (e.g., “Nice job sharing the ball.” “Thank you for throwing your trash away.”)
2. Provide praise within 5 s of recognizing the youth’s appropriate behavior (if possible)
3. Be sincere, and use appropriate facial expression, tone of voice, and body language. Do not use sarcasm, smile, level tone of voice, do not fold arms
   a. Example:
      i. Staff smiles, and orients body towards youth and says, “Thank youth Smith for coming on the dorm when asked.”
   b. NON-example:
      i. Crosses arms and states “Great job breaking the T.V youth Smith.”
4. Ignore junk behavior. Do not verbally or physically react. Do not argue, criticize, threaten, or use sarcasm with the youth.
   a. Junk behavior includes behaviors that can be tolerated and are not causing distress to the individual or others and are not detrimental to the environment. Junk behaviors include but are not limited to excessive profanity, verbal threats “I’m going to tear the place up, or buck out,” name calling, disrespect, etc. Other examples of junk behavior may include sitting inappropriately on furniture, beating on doors, crying, yelling, and making verbal threats about harming oneself or others.
5. Click the counter every instance you use behavior specific praise
### Appendix H: Behavior Specific Praise Examples and Non-examples

<table>
<thead>
<tr>
<th>Behavior Specific Praise Examples</th>
<th>Non-examples of Praise</th>
<th>Negative Interaction Examples: Criticism, Threats, Sarcasm, Arguing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great job, Smith for filling up the water cooler</td>
<td>Thanks</td>
<td>Great job, breaking the window (Sarcasm)</td>
</tr>
<tr>
<td>Thank you for cleaning up the game</td>
<td>Good</td>
<td>Thanks for making this mess (Sarcasm)</td>
</tr>
<tr>
<td>I liked the way you stopped when he said stop</td>
<td>Nice job</td>
<td>If you don’t stop right now, I’m going to put on level freeze for a month (Threat)</td>
</tr>
<tr>
<td>Awesome job studying</td>
<td>Appreciate it</td>
<td>Stop that, you’re retarded (Arguing / Criticism)</td>
</tr>
<tr>
<td>Thanks for sharing the cards</td>
<td>Awesome</td>
<td>I’m going to get you if you don’t listen (Threat)</td>
</tr>
<tr>
<td>Nice, you included everyone</td>
<td>Cool</td>
<td>Listen to me! You’re not listening, listen (Arguing)</td>
</tr>
<tr>
<td>I liked how you asked for help</td>
<td>Wow, good job</td>
<td>Help clean up… you should help everyday… No, help right now! (Arguing)</td>
</tr>
<tr>
<td>You followed instructions, great job</td>
<td>Thank you, youth Smith</td>
<td>I’ll listen to you when you can stop stuttering (Sarcasm / Criticism)</td>
</tr>
<tr>
<td>Thanks for lining up for count</td>
<td>Wait to go</td>
<td>You know I hate when you do that (Arguing)</td>
</tr>
<tr>
<td>Great job waiting for me to get back to you</td>
<td>Appreciate your effort</td>
<td>Youth Smith, stop or I am going to get X staff (Arguing, Threat)</td>
</tr>
</tbody>
</table>
Appendix I: Researcher Fidelity Checklist and Data Sheet During Intervention

<table>
<thead>
<tr>
<th>Date:</th>
<th>Observer Name: ____________________________________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff Name:</td>
<td>Completes = (+) Incomplete = (-)</td>
</tr>
<tr>
<td>Session:</td>
<td></td>
</tr>
</tbody>
</table>

1. Gave the counter to staff

2. Recorded frequency of BSP and negative interactions delivered by staff every 5 min during the entire 15 min interval

3. Collected data sheet at the end of session

4. Thanked the staff for completing the data sheet (without delivering any feedback)

5. Removed the counter at the end of session

<table>
<thead>
<tr>
<th>5 min: BSP # ______: Negative interactions # ________</th>
<th>Total # (+): _____/5</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 min: BSP # ______: Negative interactions # ________</td>
<td>Fidelity: ________%</td>
</tr>
<tr>
<td>15 min: BSP # ______: Negative interactions # ________</td>
<td></td>
</tr>
<tr>
<td>Total BSP #: ______: Total Negative interactions #: ____</td>
<td></td>
</tr>
<tr>
<td>Rate of BSP: Total BSP <strong><strong><strong>/</strong></strong></strong> min (total) = _____</td>
<td></td>
</tr>
<tr>
<td>Rate of Negative interactions: Total Negative interactions <em><strong>/</strong></em> min (total) = ________</td>
<td></td>
</tr>
</tbody>
</table>
### Appendix J: Behavior Rating Scale

#### Behavior Rating Scale

<table>
<thead>
<tr>
<th>Session</th>
<th>Date</th>
<th>Staff Name</th>
</tr>
</thead>
</table>

**Please rate the frequency of behaviors listed using the key below**

<table>
<thead>
<tr>
<th>Behavior Rating Scale</th>
<th>Infrequently 2 or less instances</th>
<th>Sometimes 3-4 instances</th>
<th>Frequently 5-6 instances</th>
<th>Regularly 7-9 instances</th>
<th>Constantly 10+ instances</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Junk Behavior</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excessive Profanity</td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td>Name Calling Peers or Teachers</td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td>Banging on property (e.g., door kicking, window beating)</td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td>Verbal Threats to harm self, others, or property</td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
</tbody>
</table>

**Major Problem Behavior**

| Aggression Towards Others | ![ ]( )                                              | ![ ]( )                                              | ![ ]( )                                              | ![ ]( )                                              | ![ ]( )                                              |
| Property Destruction     | ![ ]( )                                              | ![ ]( )                                              | ![ ]( )                                              | ![ ]( )                                              | ![ ]( )                                              |
| Out of Area              | ![ ]( )                                              | ![ ]( )                                              | ![ ]( )                                              | ![ ]( )                                              | ![ ]( )                                              |
Appendix K: IRB Exemption Letter

10/15/2019

Zoe Hay

RE: Exempt Certification
IRB#: Pro00041509
Title: Use of Pyramidal Training in a Juvenile Residential Facility: Teaching Staff to Self-Monitor Use of Behavior Specific Praise

Dear Ms. Hay:

On 10/11/2019, the Institutional Review Board (IRB) determined that your research meets criteria for exemption from the federal regulations as outlined by 45 CFR 46.104(d):

(3) (i) Research involving benign behavioral interventions in conjunction with the collection of information from an adult subject through verbal or written responses (including data entry) or audiovisual recording if the subject prospectively agrees to the intervention and information collection and at least one of the following criteria is met: (A) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subject; (B) Any disclosure of the human subjects’ responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects’ financial standing, employability, educational advancement, or reputation; or (C) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by 45 CFR 46.111(a)(7).

As the principal investigator for this study, it is your responsibility to ensure that this research is conducted as outlined in your application and consistent with the ethical principles outlined in the Belmont Report and with USF HRPP policies and procedures.

Please note, as per USF HRPP Policy, once the exempt determination is made, the application is
closed in ARC. This does not limit your ability to conduct the research. Any proposed or anticipated change to the study design that was previously declared exempt from IRB oversight must be submitted to the IRB as a new study prior to initiation of the change. However, administrative changes, including changes in research personnel, do not warrant an Amendment or new application.

We appreciate your dedication to the ethical conduct of human subjects research at the University of South Florida and your continued commitment to human research protections. If you have any questions regarding this matter, please call 813-974-5638.

Sincerely,

Melissa Sloan, PhD, Vice Chairperson USF Institutional Review Board