

FUNCTIONAL ANALYSIS SCREENING FOR PROBLEM BEHAVIOR
MAINTAINED BY AUTOMATIC REINFORCEMENT

By

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To my parents, David and Corinne Querim
To my love, Daniel C. DeRosa

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TABLE OF CONTENTS

	<u>page</u>
ACKNOWLEDGEMENTS	4
LIST OF TABLES	6
LIST OF FIGURES	7
ABSTRACT	8
CHAPTER	
1 INTRODUCTION	9
2 METHOD	12
Subjects and Settings	12
Response Measurement and Interobserver Agreement	12
Preference Assessment	13
Experimental Design	13
Assessment Conditions	14
Alone/No-Interaction	14
Attention	14
Play	14
Demand	15
3 RESULTS	19
4 DISSCUSSION	30
LIST OF REFERENCES	34
BIOGRAPHICAL SKETCH	36

LIST OF TABLES

<u>Table</u>		<u>page</u>
2-1	Subject characteristics.....	17
2-2	Possible outcomes.....	18
3-1	Summary of results.....	29

LIST OF FIGURES

<u>Figure</u>	<u>page</u>
3-1 Percent of intervals with stereotypy across the screening assessment and functional analysis conditions.....	23
3-2 Percent of intervals with stereotypy across the screening assessment and functional analysis conditions.....	24
3-3 Self-injury across the screening assessment and functional analysis conditions for four subjects.....	25
3-4 Responses per minute of property destruction across the screening assessment and functional analysis conditions.....	26
3-5 Aggression across the screening assessment and functional analysis conditions for four subjects.....	27
3-6 Self-injury and stereotypy across the screening assessment and functional analysis conditions for two subjects.....	28

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In a typical functional analysis of problem behavior, an individual is exposed to a series of test conditions representing different potential sources of reinforcement. One common finding in previous research is that behavior maintained by social reinforcement typically extinguishes in the “alone” (or no-interaction) condition, whereas behavior maintained by automatic reinforcement continues to occur. Thus, initial exposure to only the alone condition may represent an efficient screening procedure when maintenance by automatic reinforcement is suspected. We conducted a series of 5-min alone sessions in 30 cases for individuals who exhibited varied forms of problem behavior and verified initial predictions of maintenance versus extinction in a subsequent functional analysis. Results of the functional analyses indicated that the problem behavior of 22 individuals was maintained by automatic reinforcement, of which 21 were predicted by results of the screening procedure, whereas the problem behavior of 8 individuals was maintained by social reinforcement, of which 7 were predicted by results of the screening procedure. Thus, results of the screening accurately predicted the function of problem behavior (social vs. automatic reinforcement) in 28 out of 30 cases.

CHAPTER 1 INTRODUCTION

Functional analysis (FA) methodology is an experimental approach to assessment that identifies environmental determinants of problem behavior. In a typical FA (Iwata, Dorsey, Slifer, Bauman, & Richman, 1982/1994), an individual is exposed repeatedly to a series of conditions in which antecedent and consequent events are manipulated to determine which events are responsible for behavioral maintenance. The utility of the FA as a basis for intervention has been demonstrated in hundreds of studies; as a result, it is considered the standard throughout the field (Hanley, Iwata, & McCord, 2003).

Much of the research in the FA literature has consisted of systematic replication and extension across client population, problem behavior, and setting. Other research has focused on methodological refinement or adaptation to accommodate unusual client histories or limiting conditions of assessment. These modifications have included variations in both the content and arrangement of assessment conditions, and the present study focuses on the latter. One limitation to assessment in settings such as outpatient clinics is the amount of time available for conducting observations, and a model developed specifically for use in time-limited situations is the brief functional analysis (BFA). As described by Northup et al. (1991), the BFA consisted of single exposures to 5-min assessment conditions, with the addition of one replication (the condition in which behavior occurred most frequently) and a treatment probe if time permitted. In an analysis of data from 79 cases in which the BFA was used, Derby et al. (1992) reported that the BFA yielded interpretable results in 47% of the cases. Kahng and Iwata (1999) subsequently compared outcomes from brief and more typical (repeated measures) FAs for 50 cases and found correspondence in 66% of the cases. Thus, although the BFA may represent the only option for

experimental assessment under some conditions, the greatly reduced number and duration of sessions yield limited samples of behavior.

Vollmer, Marcus, Ringdahl, and Roane (1995) proposed a progressive or hierarchical model of assessment in which lengthier components were added as needed. Twenty subjects progressed through four phases of assessment, which were terminated following any stage in which the function of problem behavior was identified. In phase one, eight-to-twelve sessions of a typical FA were conducted in a multielement design, and data were examined as within-session patterns of responding. In phase two, FA sessions continued and data were examined as overall session means. In phase three, additional sessions only from the alone (or no-interaction) condition were conducted. In the final phase, all assessment conditions again were conducted but were alternated in a reversal design. Using this strategy, Vollmer et al. identified the function of problem behavior in 17 of the 20 cases. Six subjects completed the assessment following phase 1, four additional subjects in phase 2, five in phase 3, and two in phase 4. It should be noted, however, that the assessment was not especially brief in nature because even phase 1 entailed eight-to-twelve, 10-min sessions, the typical duration for many FAs.

Roscoe, Iwata, and Zhou (2012) described an alternative assessment model for a specific application. Assuming that the target behavior in their study, hand mouthing, was most likely to be maintained by automatic reinforcement, they arranged FA conditions in a 2:1 ratio of no-interaction versus attention and demand sessions and eliminated the play condition entirely. This resulted in an FA consisting mostly of no-interaction sessions interspersed with attention and demand probes. If results were clear after 14 sessions, the functional analysis was terminated; if not, further manipulations were conducted. Forty-six of 64 subjects (72%) required only the

initial assessment phase, suggesting that exposure to only the alone or no-interaction sessions may have been sufficient for a large number of individuals.

The purpose of this study is to evaluate the utility of brief exposure to alone or no-interaction sessions as a screening procedure for problem behavior maintained by automatic reinforcement. If problem behavior maintains during this brief assessment, it may be possible to skip all other conditions and proceed directly to intervention. By contrast, if problem behavior does not maintain, further assessment would be warranted. In the present study, we conducted the initial screening and subsequent FA for all subjects to determine (a) if high rates of problem behavior during screening sessions were predictive of the outcome of an FA and (b) whether behavior maintained by automatic reinforcement revealed a more consistent pattern of responding during screening sessions relative to behavior having other (social) functions.

Because several studies have demonstrated that stereotypy is likely to be maintained by automatic reinforcement (Piazza, Adelinis, Hanley, Goh, & Delia, 2000; Rapp, Miltenberger, Galensky, Ellingson, & Long, 1999; Vollmer, Marcus, & LeBlanc, 1994), stereotypy was the topography examined most often for this study. We included other topographies of problem behavior (aggression, self-injury, etc.) as well because these topographies have been shown to be maintained more often by social reinforcement (Vollmer, Borrero, Lalli, & Daniel, 1999; Iwata et al., 1994). The inclusion of multiple topographies of problem behavior increased the likelihood that we would be able to verify predictions (extinction or maintenance) from the screening data.

CHAPTER 2 METHOD

Subjects and Settings

Twenty-seven individuals (30 cases) referred for assessment of problem behavior (stereotypy, self-injury, aggression, or property destruction) participated. Table 2-1 shows demographic information for all subjects. The study was conducted at three sites: two school programs and a residential program, all serving students with intellectual disabilities and/or autism. All sessions were conducted in small rooms containing a desk, two chairs, and other materials as needed. Screening sessions were 5 min in duration, FA sessions were 10 min in duration, and both were conducted three to five times per day, one to five days per week.

Response Measurement and Interobserver Agreement

The primary dependent measure was the occurrence of problem behavior, which was defined on an individual basis. Trained observers recorded frequency data on Personal Digital Assistants (PDAs), which were converted to rate measures (responses per min) or the percentage of 10-s intervals during which responding occurred. A rate measure was used for those behaviors that had a discrete beginning and end (e.g., aggression was recorded every time the subject's hand made contact with the therapist's body from a distance of 3" or greater). An interval measure was used for those behaviors whose duration was variable (e.g., subject pulls therapist's hair). Observers also recorded therapist behaviors (initiation of social interaction or removal of instructions) to assess procedural consistency. A second observer simultaneously but independently collected data for at least 25% of all sessions. Reliability was calculated by first dividing session time into consecutive 10-s intervals. Percent agreement for frequency measures was calculated by dividing the smaller number of responses by the larger number of responses in each interval, summing these fractions across the session, dividing by the total number of intervals, and multiplying by 100. Percent agreement for interval measures was calculated by

dividing the number of agreement intervals by the total number of intervals in a session and multiplying by 100. The mean reliability percentage for problem behavior across all subjects was 94.5% (range, 69.0 % to 100.0 %). Reliability results for other measures are available from the author upon request.

Preference Assessment

A paired-stimulus preference assessment (Fisher et al., 1992) was conducted to identify preferred items to be included in the FA. Nine leisure items were assessed, and each item was paired with every other item twice. At the beginning of each trial, the experimenter presented two items and prompted the subject to “choose one.” Approach to an item was scored when the subject touched one of the two items. The subject was given 10-s access to the selected item while the unselected item was removed. After 10 s, the selected item was removed and the next pair was presented. Attempts to approach both items were blocked and the items were re-presented. A hierarchy of preference was determined by calculating the percentage of trials during which each item was approached. Items chosen frequently were designated as highly preferred (HP), and items chosen in the middle of the hierarchy were designated as moderately preferred (MP). The two HP items were used in the play condition, and the two MP items were used in the attention condition.

Experimental Design

A series of alone or no-interaction sessions was conducted prior to beginning the FA. Each session was 5 min in duration and was conducted in a single block with 2-min breaks between sessions. Next, a standard FA (Iwata et al., 1982/1994) was conducted in a multielement design that included alone or no-interaction, attention, play, and demand conditions in a fixed sequence.

Assessment Conditions

Alone/No-Interaction.

The purpose of this condition was to determine whether problem behavior maintained in the absence of any social interaction; if so, it was most likely maintained by automatic reinforcement. The subject was in a room that did not contain any leisure items. In the alone condition, the experimenter was not in the room. The no-interaction condition was conducted if the target behavior was aggression. An experimenter was present during the no-interaction condition, but the experimenter did not interact with the subject at any time and did not deliver any consequences for the occurrence of problem behavior.

Attention.

The purpose of this condition was to determine whether problem behavior was maintained by social-positive consequences in the form of attention. The subject was in a room with free access to two moderately preferred leisure items. At the beginning of the session, the experimenter stated that he or she had work to do, turned away from the subject, and engaged in a solitary activity (e.g., read a magazine). If the subject engaged in problem behavior, the experimenter delivered 3-5 s of verbal and physical attention. The experimenter ignored all non-target behavior.

Play.

This condition served as the control condition to which problem behavior in the test conditions was compared. The individual had access to highly preferred leisure items. The experimenter delivered 3-5 s of verbal and physical attention at least every 30 s and whenever the subject initiated social interaction with the experimenter. All instances of problem behavior were ignored.

Demand.

The purpose of this condition was to determine whether problem behavior was maintained by social-negative consequences in the form of escape from task demands. The experimenter continuously presented academic tasks and used a three-prompt sequence (vocal instruction, model prompt, physical prompt) to prompt the subject to complete the task. The experimenter terminated the trial (ceased instructions, removed all materials, and turned away from the subject) for 30 s contingent on problem behavior. The experimenter delivered brief praise (3-5 s) contingent on the subject's compliance.

Data Interpretation

At least three and usually eight Board Certified Behavior Analysts examined separate graphs of screening and functional analysis data and came to a consensus regarding (a) the prediction made by the screening assessment, (b) the functional analysis outcome, and (c) the extent to which the predictions made in the screening assessment corresponded to the functional analysis outcome (Table 2-2).

If behavior maintained for 3 or more sessions during the screening assessment, behavior was predicted to be maintained by automatic reinforcement. If data showed a clear downward trend ending in a zero or near-zero rate of behavior, behavior was predicted to be maintained by social reinforcement. The play condition of the functional analysis served as the control condition against which the test conditions (alone, attention, demand) were compared. If problem behavior maintained during the screening and also was either highest in the alone or no-interaction condition relative to the play condition or high in all conditions of the subsequent functional analysis, problem behavior was determined to be maintained by automatic reinforcement (hit). Similarly, if behavior in the screening assessment was observed to decrease or occur at zero levels across 3 or more sessions, behavior was predicted to be maintained by

social reinforcement. If problem behavior during the subsequent functional analysis was highest in the attention or demand condition, behavior was determined to be maintained by either attention or escape from demands (also a hit). Two types of error could have occurred. If the screening assessment predicted behavior maintained by automatic reinforcement but was observed to occur at the highest levels in either the attention or demand condition (or at high levels in both conditions), behavior was determined to be maintained by social reinforcement (false alarm). Finally, if behavior did not maintain during the screening (automatic reinforcement prediction) but occurred at its highest in the alone condition or in all conditions of the subsequent functional analysis is, behavior was determined to be maintained by automatic reinforcement (miss).

Table 2-1. Subject characteristics.

Subject	Age	Diagnosis	Topography
Michele	13	Autism Spectrum Disorder (ASD)	STPY: Hand wave
Bri	19	ASD	STPY: Finger play
Dan	11	ASD	STPY: Vocal
Karl	13	ASD	STPY: Vocal
Cor	36	Spastic Quadriplegia, Idiopathic Developmental Delay	STPY: Hand/object in mouth
Niki	47	Cerebral Atrophy, Microcephalic, Deaf, Blind, Severe Developmental Delay	STPY: Finger play
Eric	30	Left Hemiparesis, Seizure Disorder, Mental Retardation, Severe Developmental Delay, Right Retinal Detachment	STPY: Hand in mouth
Winn	13	ASD	STPY: Hand wave
Natalie	14	ASD	STPY: Vocal
Dave	12	ASD	STPY: Finger tap, spin
Jake	14	ASD	STPY: Hand wave
Nate	14	ASD	STPY: Hand wave
Sonya	14	ASD	STPY: Hand wave
Holly	16	Intellectual Disability (ID), speech and language impaired	STPY: Rub lips
Ron	23	ID, speech and language (S/L) impaired, physical impairment	STPY: Head twirl
Mark	10	Orthopedically impaired, S/L impaired	STPY: Lip rub
Neil	20	ASD, language impaired	STPY: hand wring
Jude	12	ASD, language impaired	STPY: Finger curl
Sal	16	ASD	SIB: Fist to head
Dana	14	ASD	SIB: Self-pinch
Kim	14	ID, language impaired	SIB: Hand-bite
Linda	9	Cerebral Palsy, Hydrocephalus, Cortical Blindness, Severe Developmental Delay, Infantile Seizure Disorder	SIB: Hand/arm to head
Ed	36	Mental Retardation, Spastic Deplegia, Seizure Disorder, Developmental Delay with Autistic Features	SIB: Finger to throat
Eve	17	ID, speech and language impaired	PD: Rip/tear paper, throw materials
Queen	13	Other health impaired, S/L impaired	AGG: Hit, kick, hair-pull, bite, throw objects at person; SIB: Hand to chin (3" or greater)
Pablo	23	ID, S/L impaired	AGG: hair pull; SIB: groin hit (3" or greater); PD: Rip/tear paper, throw materials

Table 2-2. Possible outcomes from the Screening Assessment and the Functional Analysis

Functional Analysis (FA)			
Screening Assessment (SA)		Automatic Reinforcement	Social Reinforcement
		Automatic Reinforcement	SA → Maintains FA → High alone or no-interaction <p style="text-align: center;">HIT</p>
Social Reinforcement	SA → Decreases or zero FA → High alone or no-interaction <p style="text-align: center;">MISS</p>	SA → Decreases or zero FA → High attention or demand <p style="text-align: center;">HIT</p>	

CHAPTER 3 RESULTS

Figure 3-1 shows the percent intervals in which 10 subjects (Jude, Winn, Natalie, Karl, Jake, Dan, Cor, Niki, Eric, and Ron) engaged in stereotypy during the screening assessment and standard FA. All subjects' stereotypy maintained during their screening assessments, suggesting that behavior was maintained by automatic reinforcement. During the subsequent FAs, all subjects engaged in stereotypy in all conditions. This outcome confirmed the prediction made by the screening assessment. That is, stereotypy was maintained by automatic reinforcement.

Figure 3-2 shows the percent intervals in which 8 subjects (Holly, Ed, Sal, Nate, Dave, Bri, Mark, and Sonia) engaged in stereotypy. Seven subjects' stereotypy maintained during the screening assessment (Holly, Ed, Sal, Nate, Dave, Bri, and Mark) and occurred at its highest levels during either the alone condition (Holly, Dave, and Bri) or during all conditions (Ed, Sal, Nate, and Mark) of the FA. The screening results for these seven subjects also predicted that stereotypy was maintained by automatic reinforcement, which was confirmed by the subsequent FA. One subject, Sonia, engaged in stereotypy that decreased markedly during the screening assessment, which suggested that her behavior was maintained by social reinforcement. Results of her FA confirmed this prediction because her highest level of stereotypy was observed in the demand condition.

Figure 3-3 shows data for subjects who engaged in self-injurious behavior (SIB). Pablo's, Linda's, and Dana's SIB maintained in the screening assessment, suggesting that it was maintained by automatic reinforcement. During the subsequent FA, their SIB maintained in all conditions, confirming the prediction made by the screening assessment. Kim did not engage in any SIB during the screening assessment, suggesting that her SIB was maintained by social

reinforcement. She subsequently engaged in the highest levels of SIB during the demand condition of her FA, which confirmed the prediction made by the screening assessment.

Figure 3-4 shows data for 2 subjects who engaged in property destruction (Pablo and Eve). Pablo did not engage in any property destruction during the screening assessment, and engaged in property destruction exclusively in the demand condition during his FA. Thus, the prediction from his screening (maintenance by social reinforcement) was confirmed by his FA (maintenance by escape). Eve's property destruction showed a different pattern—high levels of responding during the screening assessment and during all conditions of her FA, with highest levels during the alone condition. Thus, her screening assessment accurately predicted that property destruction was maintained by automatic reinforcement.

Figure 3-5 shows data for 4 subjects who engaged in aggression (Brad, Pablo, Kim, and Queen). All subjects had zero or near-zero levels of aggression during the screening assessment, suggesting maintenance by social reinforcement. During the subsequent FAs, Brad and Pablo engaged in the highest levels of aggression during the attention condition, whereas Kim and Queen engaged in the highest levels of aggression during the demand condition, confirming that their aggression was maintained by social reinforcement (attention for Brad and Pablo, escape for Kim and Queen).

Figure 3-6 shows data for the only two subjects whose screening results were inconsistent with those obtained in the subsequent FA. Queen's SIB decreased during the screening assessment. During her FA, however, Queen engaged in the highest levels of SIB during the alone condition. These data exemplify a miss in that the prediction based on her screening data (social reinforcement) was not borne out by her FA data (automatic reinforcement). Michele's stereotypy occurred at high levels during her screening assessment. Her FA data showed

decreasing trends in all conditions initially but gradual emergence in only the attention condition. These data exemplify a false alarm. That is, her screening assessment incorrectly predicted that behavior was maintained by automatic reinforcement, whereas her FA indicated that behavior was maintained by social reinforcement (attention).

Table 3-1 shows a summary of the results. Overall, the screening assessment accurately predicted that behavior was maintained by either automatic or social reinforcement in 28 of 30 cases.

A total of 19 subjects engaged in stereotypy. For 18 of these 19 subjects, results of the screening assessment accurately predicted the function of problem behavior (17 automatic reinforcement and 1 social reinforcement). Only one error (a false alarm) occurred: The screening assessment predicted that Michele's stereotypy was maintained by automatic reinforcement, whereas the FA identified attention as the maintaining reinforcer.

Five subjects engaged in SIB. The screening assessment accurately predicted that SIB was maintained by automatic reinforcement for three of these subjects and that SIB was maintained by social reinforcement for a fourth subject, whose FA identified escape from demands as the source of reinforcement. The fifth subject's (Queen's) screening assessment produced an error (a miss): it predicted that SIB was maintained by social reinforcement, whereas results of the FA showed that SIB was maintained by automatic reinforcement.

Two subjects engaged in property destruction--one maintained by automatic reinforcement and the other by social reinforcement, and the screening assessment accurately predicted both of the FA outcomes.

Finally, the screening assessment accurately predicted that the aggression exhibited by four of four subjects was maintained by social reinforcement. Specifically, all four subjects'

aggression either never occurred or decreased to zero during the screening sessions, and the subsequent FAs indicated that two of the four engaged in aggression maintained by attention, and that the other two engaged in aggression maintained by escape.

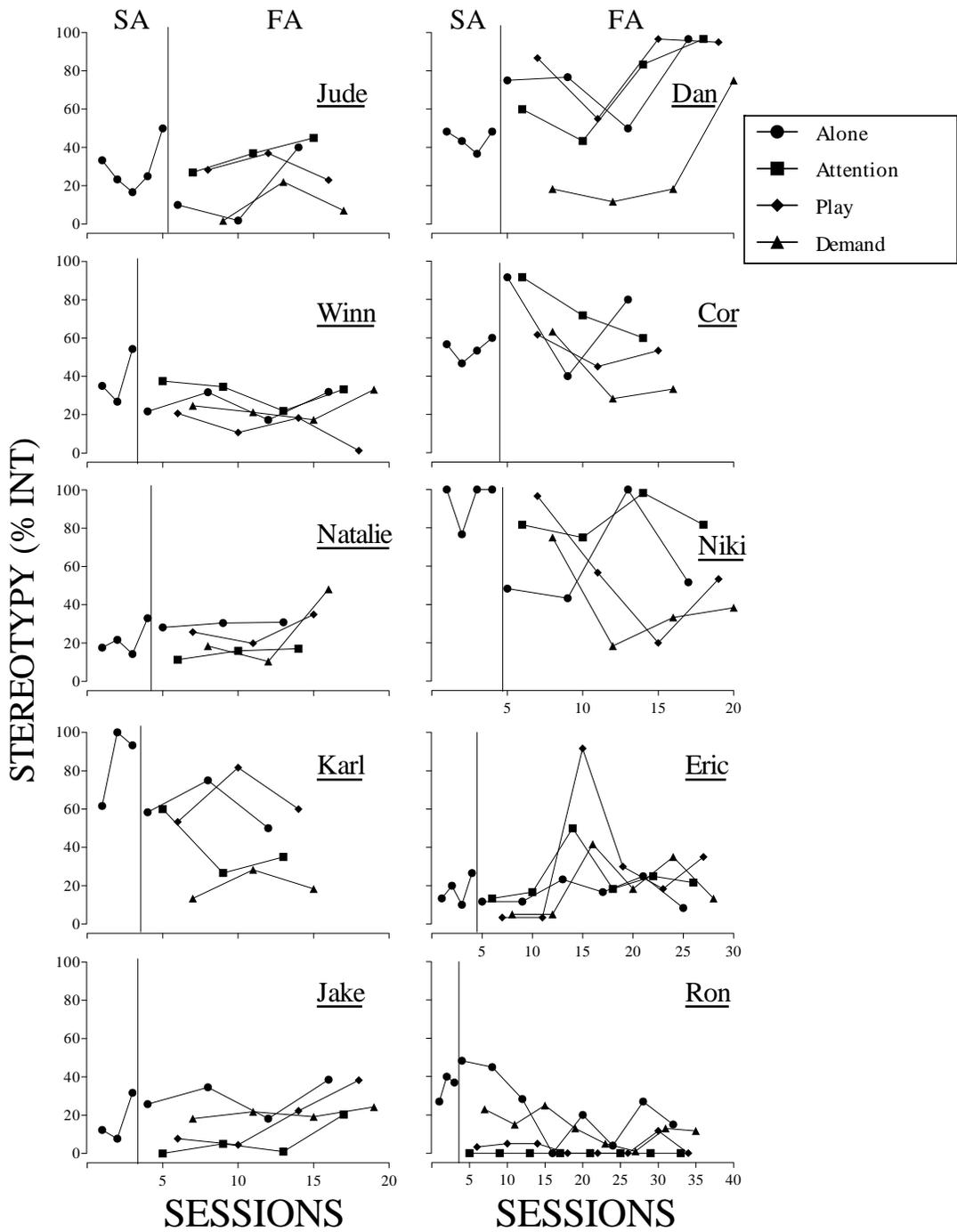


Figure 3-1. Percent of intervals with stereotypy across the screening assessment and functional analysis conditions.

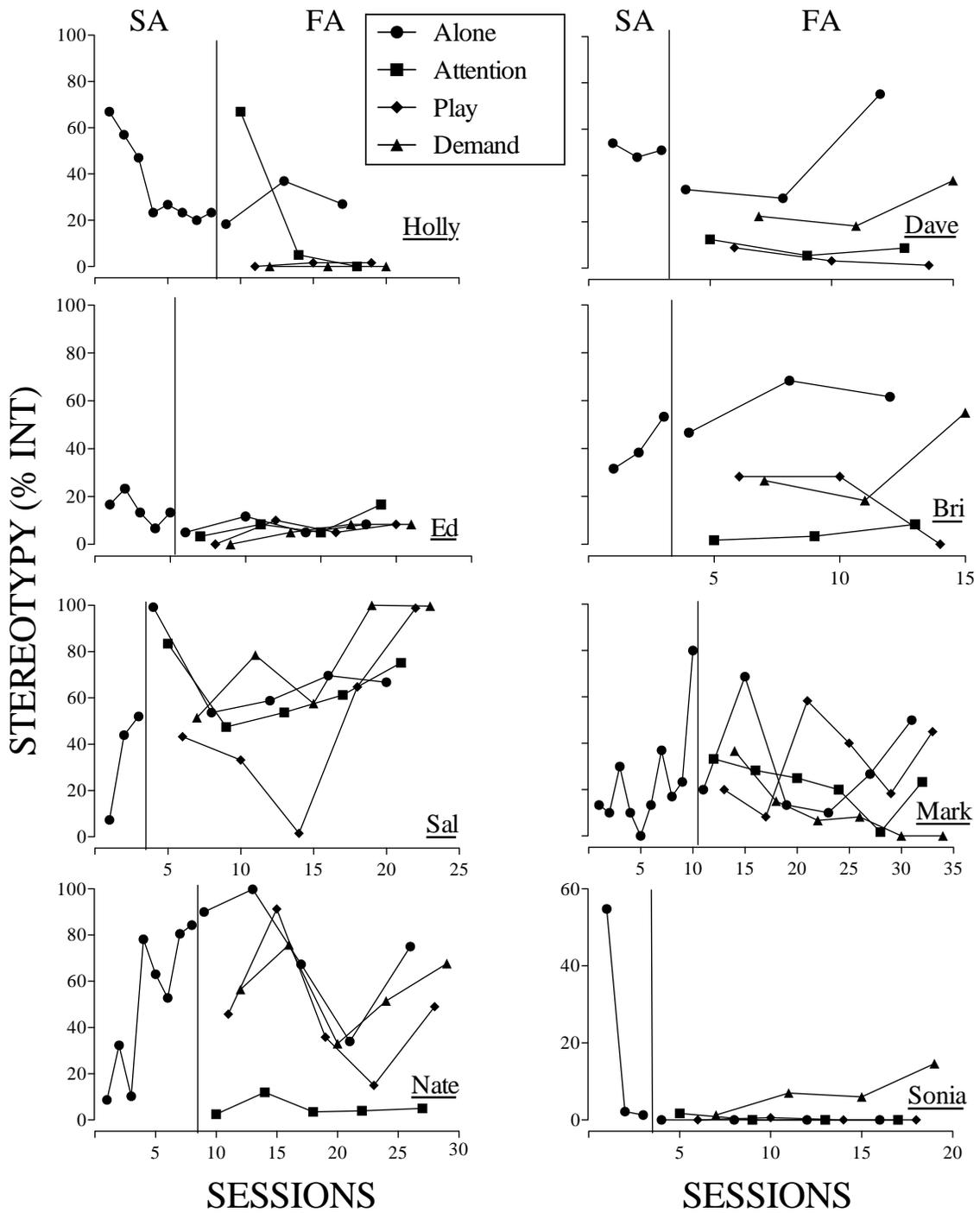


Figure 3-2. Percent of intervals with stereotypy across the screening assessment and functional analysis conditions.

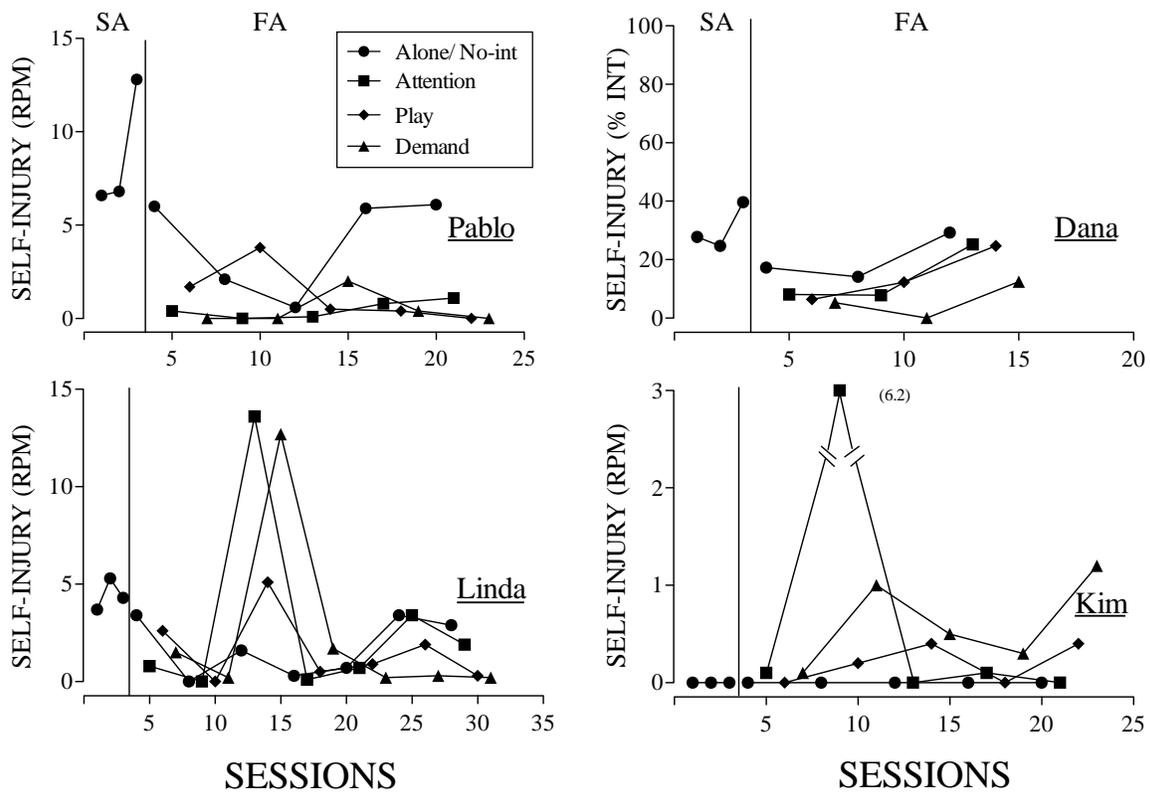


Figure 3-3. Responses per minute or percent of intervals of self-injury across the screening assessment and functional analysis conditions.

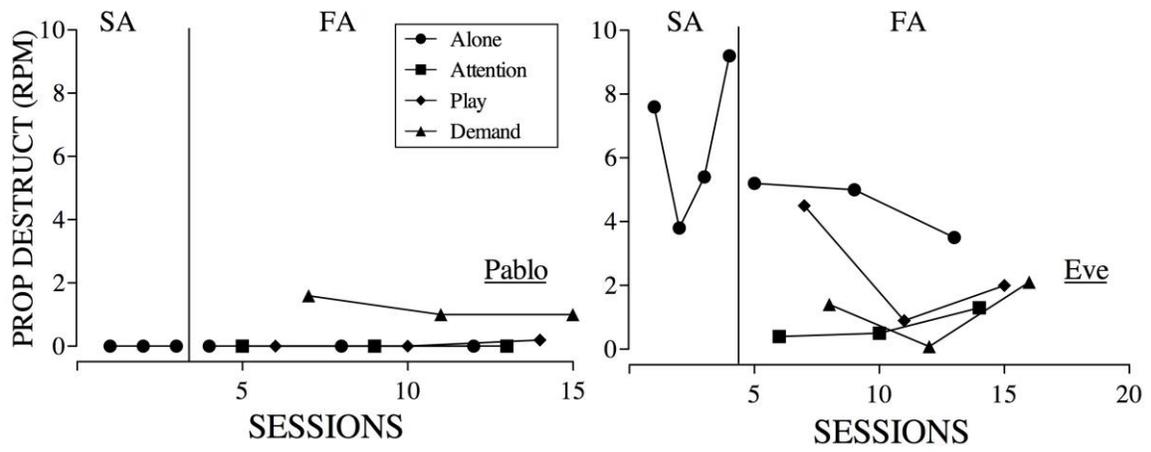


Figure 3-4. Responses per minute of property destruction across the screening assessment and functional analysis conditions.

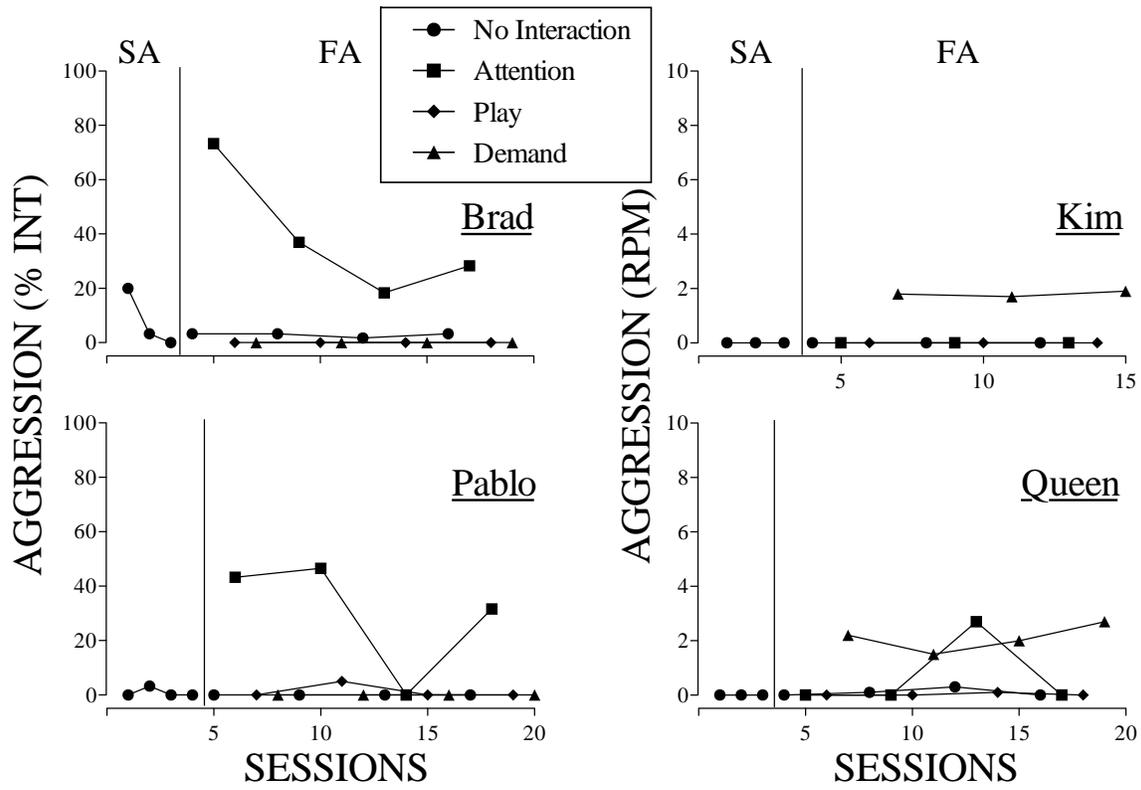


Figure 3-5. Responses per minute or percent of intervals with aggression across the screening assessment and functional analysis conditions.

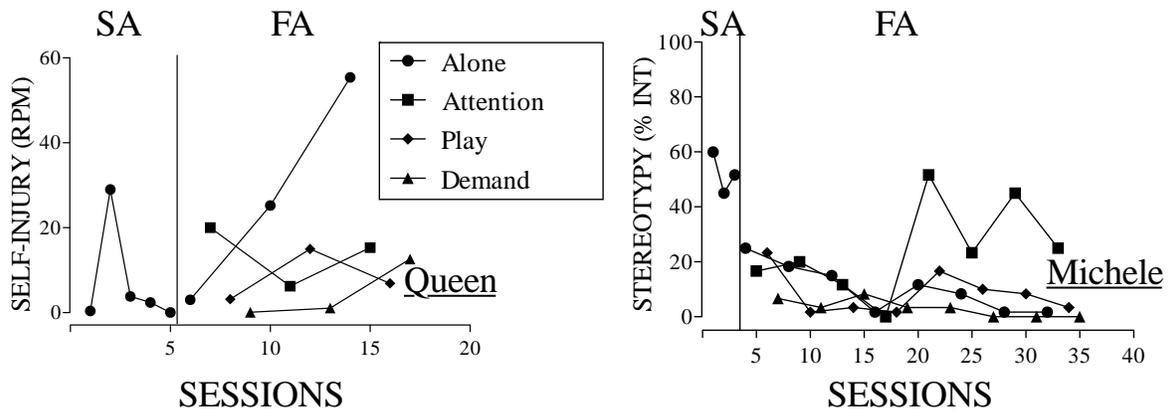


Figure 3-6. Responses per minute of self-injury across screening assessment and functional analysis conditions for Queen. Percent of intervals with stereotypy across the screening assessment and functional analysis conditions for Michele.

Table 3-1. Summary of results.

Topography	#Ss	SA	FA	Result
STPY (n=19)	17	Auto	Auto	Hit
	1	Social	Escape	Hit
	1	Auto	Attention	False Alarm
SIB (n=5)	3	Auto	Auto	Hit
	1	Social	Escape	Hit
	1	Social	Auto	Miss
PD (n=2)	1	Auto	Auto	Hit
	1	Social	Escape	Hit
AGG (n=4)	2	Social	Attention	Hit
	2	Social	Escape	Hit

CHAPTER 4 DISCUSSION

Subjects with varied problem behaviors, but predominantly stereotypy, completed a brief screening assessment (SA) consisting of exposure to a single, abbreviated test condition, followed by a typical functional analysis (FA). Results of the screening assessment accurately predicted the function of problem behavior (automatic or social reinforcement) in 28 out of 30 cases. In all but one case in which results of the FA indicated that problem behavior was maintained by automatic reinforcement (21 out of 22), the screening assessment provided an accurate prediction. Given these results, the SA may be most useful for behavior suspected to be maintained by automatic reinforcement (e.g., stereotypy and some self-injurious behavior, or property destruction). Because the SA was developed primarily for problem behavior maintained by automatic reinforcement, the extent to which the SA improved efficiency in these cases is an important consideration. Screening efficiency for behavior maintained by automatic reinforcement was calculated by dividing the total duration of the SA for each subject whose behavior was determined to be maintained by automatic reinforcement by both assessments (hit) by the total duration of each subject's FA. A total of 21 subjects engaged in problem behavior maintained by automatic reinforcement. The mean duration of each assessment was 21.5-min and 170-min for the SA and FA, respectively. The SA was completed in 12.6% of the time it would have taken to complete the full FA. The screening assessment was not only quick but also easy to implement because the experimenter either was not present or did not deliver any consequences during the sessions.

The screening assessment predicted that problem behavior was socially maintained for all four subjects who engaged in aggression. Given these results, the screening may not be very

helpful when applied to aggression because it will not identify which social contingency—positive or negative reinforcement—maintains behavior.

In spite of the high degree of correspondence between results of the screening and FA procedures, it is important to emphasize that the screening procedure is not a replacement for a full FA of problem behavior. Data in this study indicated that predictions based on the screening resulted in a 93.3% correspondence with outcomes of a functional analysis, or in a 7% loss of precision, which seems significant when conducting clinical research. Our data were based on a relatively large sample—30 subjects; even so, the generality of our results is unknown.

We estimated the extent to which rates of problem behavior in the alone or no-interaction condition predicted behavioral function in a larger sample by examining complete sets of functional analysis data published in the *Journal of Applied Behavior Analysis*. We selected all articles in which: (a) a full FA was conducted, (b) an alone or no-interaction condition was included in the FA, and (c) data were presented in the article. In 108 out of 115 published data sets, problem behavior occurred at high rates in the alone/no-interaction condition and was maintained by automatic reinforcement; in 222 out of 222 data sets, problem behavior occurred at low rates in the alone/no-interaction condition and was maintained by social reinforcement. Thus, in 330 out of 337 data sets, high or low rates of problem behavior during the alone/no-interaction condition were predictive of behavioral function, for an overall correspondence of 97.9%, a 2% loss in accuracy. The 7 data sets that did not show complete correspondence consisted of cases in which problem behavior occurring at high rates in the alone/no-interaction condition was maintained by automatic reinforcement but also by social reinforcement (multiple control). Maintenance by automatic and social reinforcement would be missed in our screening procedure because it did not contain any test for social reinforcement.

Nevertheless, results from this assessment are highly promising and suggest that the screening procedure may be an accurate and practical approximation to a complete FA in clinical situations when: (a) the target behavior consists of stereotypy, (b) preliminary evidence suggests that problem behavior may be maintained by automatic reinforcement, and (c) a full FA cannot be conducted due to time limitations.

Finally, although our primary interest was the assessment of behavior maintained by automatic reinforcement, patterns of responding observed during the screening suggested that it also may be helpful as an initial test for problem behavior maintained by social reinforcement. For example, trends observed during the screening may suggest that one source of social reinforcement is more likely than another. Two of the three subjects who engaged in attention-maintained problem behavior as identified by the FA exhibited either low or decreasing rates of problem behavior during the screening, which would be expected when problem behavior maintained by attention is exposed to extinction. Thus, a decreasing trend during screening might be followed by a single-function test in which the attention and control conditions are alternated to confirm attention-maintained problem behavior. Similarly, subjects whose behavior was maintained by escape from demands as identified by the FA did not engage in any problem behavior during the screening, which also might be expected because either the absence of a therapist (or no interactions initiated by a therapist) eliminates the motivational basis (establishing operation) for escape. If this pattern of problem behavior is observed during screening, it might be followed by a single-function test for escape-maintained problem behavior. Thus, even for cases in which problem behavior is maintained by social reinforcement, the “alone” screen might represent an overall gain in assessment efficiency by reducing the number of subsequent test conditions.

Future research might consider the extent to which anecdotal reports facilitate selection of experimental assessment strategies. For example, verbal reports given by caregivers might suggest that problem behavior either is or is not likely to occur in social contexts; when accurate, this information may be helpful in determining whether to conduct an “alone” screen versus a more complete assessment.

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BIOGRAPHICAL SKETCH

Angie Querim graduated from the University of Rhode Island with a B.A. in psychology in 2003. Her clinical experience as a behavior therapist at Perspectives Corp. in North Kingston, Rhode Island, piqued her interest in that field. After graduation, she began working as a behavior therapist at the New England Center for Children in Southborough, Massachusetts to gain additional clinical experience. Her clinical work motivated her to expand her education and clinical experiences in applied behavior analysis. As she began to pursue her graduate degree, she gained advanced clinical experience at B.E.A.C.O.N Services, INC. After graduating with her master's degree from Northeastern University in 2006, she accepted a position at the University of Florida's Behavior Analysis Services Program conducting parent training with caregivers of children in the state foster care system. This new experience inspired Angie to further her graduate studies, and she began her PhD at the University of Florida. Since beginning her career in behavior analysis, Angie has had the opportunity to work with various populations in clinical and research settings, and she has greatly enjoyed these experiences. Following graduation, Angie intends to pursue a career in applied behavior analysis, with the terminal goal of teaching and conducting research.