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An Evaluation of a Culture Interview Checklist for Behaviorally-Oriented Clinicians

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An Evaluation of a Culture Interview Checklist for Behaviorally-Oriented Clinicians

by

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Abstract

Title: An Evaluation of a Culture Interview Checklist for Behaviorally-Oriented Clinicians

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In recent years, there have been calls from within the field for behavior analysts to develop awareness of the impact of client culture on treatment. The purpose of this study was to develop and evaluate a checklist as a tool for increasing the frequency of questions about client culture asked by behavioral clinicians during mock intake interviews. A multiple baseline across question types (diet, communication and reward/discipline) was used to evaluate the effects of a vague prompt and the Culture Interview Checklist (CIC). When instructed to ask questions about culture, none of the participants increased the number of questions asked to a socially significant degree. Two out of the three participants met the mastery criteria for each portion of the CIC after it was introduced. The third participant required an additional instruction to meet the mastery criteria. A tool such as the CIC may advance the field in a myriad of ways as behavior analysis embarks upon the challenge of becoming more culturally competent.

Keywords: culture, checklist, antecedent intervention, interview

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Dedication

I would like to dedicate my thesis to my parents and my wife, Katharyn. Without all of their support and guidance, I would not have made it through this process.

I love you always.

An Evaluation of a Culture Interview Checklist for Behaviorally-Orientated Clinicians

The United States Census Bureau has reported by the year 2044, no single demographic category will hold a majority over the rest of the population (Colby & Ortman, 2014). The "majority minority" is defined as no single demographic category holding over fifty percent of the total population (Colby & Ortman, 2014). In other words, the majority of the population will be made up of multiple different, smaller, minority groups. Diversity among children will become the most prevalent by 2020 when the child population reaches minority-majority status. Colby & Ortman (2014) also project one in five American children will be born outside of the United States by 2060. With the growing diversity of the population, particularly among children, measures should be taken to meet the needs of those from diverse cultural backgrounds who seek behavioral services. Clients with cultural backgrounds differing from those of the practitioner providing services may have different values and customs which must be considered when designing behavioral treatment. By utilizing "culturally-competent care," practitioners can improve the quality of their treatments.

Culture is the "knowledge, belief, art, morals, laws, customs, and any other capabilities and habits acquired by man from their society" (Taylor, 1958). It is important for behavior analysts to be aware that culture sets up particular contingencies which shape the behavior of individuals (Glenn, 2004; Skinner 1971).

The cultural practices of a given group affect what is deemed acceptable behavior and gives the appropriate context for when a behavior should or should not occur.

Skinner discussed culture in *Selection by Consequences* (1981). In this paper, Skinner described three ways the environment provides consequences, which ultimately shapes (or "selects") the behaviors in an individual's repertoire. The first type of selection is by phylogenetic means, in other words, natural selection. This simply means that physical traits are selected by the environment based on their ability to help the organism survive. The next type is operant selection, in which behaviors are selected to occur again, through reinforcement, to enable organisms to adapt to the environment within their lifetime. The last type is cultural selection. Skinner asserted that cultural practices are selected and passed on if they benefit the practicing group (Skinner, 1981).

Several other behavior analysts have described how operant and cultural contingencies interact to affect human behavior. Houmanfar and Rodrigues (2006) focused on how metacontingencies are related on the behavioral and cultural levels, and where they might depart from those levels of analysis. A *metacontingency* is a series of interlocking behaviors leading to an accomplishment that took several steps. An *interlocking behavior* is when an individual's behavior serves as an antecedent or consequence to engage in another behavior, either for oneself or another person (Houmanfar & Rodrigues, 2006). For example, a conductor of an orchestra sets the tempo of the musical piece, which allows the orchestra to play together at the correct speed. A

metacontingency is produced by interlocking contingencies occurring by members of that group. It is important to note that these interlocking contingencies will produce distinct results that will differ if the members are acting alone (i.e., not a part of the interlocking contingencies). This analysis outlines how the current model of a metacontingency can be more explicit and behaviorally systematic due to its relation of a behavioral level with the cultural level.

Culturally-competent care

When interacting with others from various cultural backgrounds, we can expect to observe differences in vocal language, gestures, religion, food consumption, clothing, gender roles, attitudes toward disciplining children and much more. Since culture shapes much of an individual's behavior, there is an increased need to investigate whether behavior analysts are meeting these cultural expectations. Cultural topics and training demand our attention and awareness, much like the medical field has provided training to their nurses (MacAvoy, & Troth Lippman, (2001); DiCicco-Bloom & Cohen (2003); Wilson (2010)).

Cross, a dedicated researcher and advocate of including cultural practices in mental health intervention, defines cultural competence as "a set of congruent behaviors, attitudes, and policies that come together in a system, agency or among professionals and enable that system, agency or those professions to work effectively in cross-cultural

situations" (Cross et al., 1989). This definition reflects that an agency should prioritize valuing cultural differences, enabling an inclusive and productive work environment. These values should be demonstrated through the interlocking behaviors throughout the entirety of a profession so that an agency or individual could move to a new cultural location, and the system would still operate as smoothly as it previously did. This would allow therapists to understand complex behaviors and how to incorporate them into the service that is provided.

Culturally-competent care in the medical field. While studying culturally-competent care may be a new area for behavior analysis, it has been studied in different fields. Lessons learned in these fields may apply to behavior analysis. For example, Betancourt and colleagues found a strong correlation between a practitioner's capability to provide culturally- and linguistically-competent care and better health results (Betancourt, Green, Carrillo & Park, 2005; Branch & Fraser, 2000).

MacAvoy and Doris (2001) aimed to improve the cultural competence about rural Appalachia among professional nurses. The nurses took a three-credit seminar course and a one-credit clinical course. The dependent variable was grades on assignments and exams that evaluated cultural competences administered for the seminar course. The clinical course evaluated the nurse's verbal reports of how they felt they had grown to be more culturally competent as a result of being enrolled in both courses.

DiCicco-Bloom and Cohen (2003) interviewed 14 nurses from two companies who were providing in-home services as a way to measure the occurrence of culturally-competent care in the nursing field. They found that each company had a universal system designed to meet the medical needs of the patients; thus, individualized plans were not needed. Neither system took into account different cultures among patients, due to the standardization of all procedures in the company. The nurses were explicitly told not to deviate from the planned universal system. The article ends by emphasizing how literature in the medical field suggests better outcomes if culturally-competent care is incorporated and how universal plans negatively impact client care.

Culturally-competent care in psychology. The field of psychology has been interested in improving culturally-competent care, as well. Sue (2001) reviewed the difficult and slow progress psychology has made toward this end. The three issues that seemed most distinct to her were the belief that psychological laws and theories are universal, monocultural practices and policies are not being seen as clearly as they should, and the lack of agreement over the definition of culturally-competent care among colleagues. Sue proposed that a factorial approach would be the most beneficial for assessing the level of cultural competence an individual has achieved. The factorial approach has three dimensions (i.e., racial and culture-specific attributes of competence, components of cultural competence, and foci of cultural competence) that can be merged into three factorial combinations consisting of (a) awareness, knowledge, and skills (b)

individual, professional, organizational, and societal, and (c) African American, Asian American, Latino/Hispanic American, Native American, and European American. Each dimension was looked at in part or in whole against other dimensions as possible barriers for fully embracing culture in psychology.

Whaley and Davis (2007) asserted that psychology is in need of effective training practices on evidence-based practice and culturally-competent care, and these should be in harmony with each other. However, they claimed that evidence-based practices are not typically implemented in the research on culturally-competent care in the psychological literature, especially among clients of color. The authors suggested that researchers should focus attention on effectiveness studies rather than efficacy studies. In other words, studies should not focus on what might lead to effective results, but rather, on directly producing that effectiveness.

An example of a cultural model of mental health treatment for African Americans details how the Afrocentric model, which is based in principle on incorporating African-American culture, can be used to provide more beneficial mental health care (Jones, Hardiman, & Carpenter 2007). Specifically, many African-Americans feel stigmatized and are less likely to search for mental help due to the lack of mental illness awareness in the community. They also typically view “recovery” differently than other ethnicities since recovery in their culture means that there is no longer an issue (Jones, Hardiman, & Carpenter 2007). For example, recovery from a sprained ankle is the typical train of

thought. Instead, a different term may be needed to avoid a possible misunderstanding. The people need to understand that they may need medication or further services, implying they would not be fully "recovered". The model details how blending traditional mental health care norms with accounts of culture produces the most effective results. The researchers present data on traditional approaches that focus on psychiatric recovery and had a low success rate among African Americans. There is limited research on the Afrocentric model; however, the parallel (similar models from different cultures) data among different ethnicities has a higher success rate than the psychiatry recovery model. The Afrocentric model incorporates the parallel studies by recognizing the experiences that African Americans have faced throughout history is significant to their recovery. The model has been studied using social sciences and has found that it uses a more holistic approach in treating the individual rather than focusing on the diagnosis.

In another study, Wilson (2010) examined how psychiatric nurses viewed the client's cultural needs related to their medical needs as a different approach to evaluating cultural care. The article also examined the client's perception of how their mental needs were being met. The nurses in the study perceived that a client's cultural needs were separate from their medical needs as it related to mental illness. The clients reported that their cultural needs were not being regularly or consistently met. They primarily focused on wanting more assurance, explanations for treatment, and accommodations for their religious or spiritual beliefs. When psychiatric nurses were asked how to incorporate

these elements into their platform of care, they were unable to provide specific strategies to do so. The nurses believed they were providing culturally-competent care but could not verbalize any specific strategies they were incorporating into any clients programming.

Summary of research on culturally-competent care. Beach et al. (2005) reviewed 34 articles on culturally-competent care in the medical field from the 1980s until 2005. The authors evaluated the robustness of the results, assigning a rating of "excellent," "good," "fair," or "poor" to each. The review found "excellent" evidence that cultural-competence training improves the knowledge of health professionals (17 of 19 studies). They found "good" evidence that cultural-competence training improves the attitudes (21 of 25 studies) and skills (14 of 14 studies) of health care professionals and impacts patient satisfaction (3 of 3 studies). They found "poor" evidence that cultural-competence training impacts patient adherence. The definition of poor means it was not specifically targeted in the studies or when it was there was not a significant change between the groups.

Truong, Paradies, and Priest (2014) did a systematic review of reviews from 2000 to 2012 that focused on culturally-competent care in the health care environment. Truong et al. (2014) categorized the results of the research findings as "weak," "moderate," "moderately strong," and "strong". The most robust results indicated that culturally-competent care improves provider outcomes, access to health care, and utilization of skills. The provider of medical care outcomes consisted of a better understanding of

cultural differences, better attitudes towards communal health issues, and attentiveness to a family's background. There was weaker evidence that patient and client outcomes can be improved, but more research on this specific area needs to be conducted. Given these outcomes, behavior analysts should join the movement toward providing culturally-competent care.

Culturally-competent care in behavior analysis

Hayes (1995) proposed the question, "If behavioral principles are generally applicable, why is it necessary to understand cultural diversity?" He argued that culture does in fact influence behavior and is necessary to understand in order to properly evaluate behavior. He cautioned, however, that sweeping generalizations should be avoided. Hayes warned that incorporating cultural needs into practice can lead to prejudice if precautions are not taken. He added that emphasis should be on the use of functional analysis to test a hypothesis about an individual's behavior, not to make generalizations about an individual based on their cultural membership. Ultimately, he argued that behavior therapists need to be well-versed in different cultures to be better prepared to meet their clients' needs (Hayes, 1995).

A behavioral company that is sensitive to understanding cultural practices among clients could prevent a misunderstanding that could lead to adverse outcomes. For example, in some Chinese cultures, it is inconsiderate to expect decisions to be made

without an elder's input, such as a grandfather or grandmother. It is also impolite to address an elder by their first name. Finally, when an elder is speaking, they should never be interrupted since they are considered wise and input is valuable (Yuan, 2008). If the service provider did not know this, they could come across as being impolite to a family by pressing them to make a decision without the input of an elder or by interrupting an elder. In this scenario, a negative review for impoliteness may look very bad on a review posted about the company on the Internet. It also could cause resistance from the family to trust the behavior tech due to not having the elder on board with the treatment plan by making cultural mistakes in the beginning. This could lead to the client not receiving the best quality of care because the family is not fully committed to the procedures. Another example may be seen when providing care to an Arab family of the Islamic faith. While providing care to the child, the therapist reinforces accepting food with the left hand or passing food with the left hand. It is taboo in the Islamic faith that food should be passed or accepted with the left hand since it is seen to be unclean (Office of the Deputy Chief of Staff for Intelligence, 2006). A final scenario may be seen when trying to enroll a Hispanic-American child into behavioral therapy. Since Autism is a lifelong condition, Hispanic-American families feel the responsibility to provide care for the child without seeking out "long-term care" (HealthCare Chaplaincy, 2013). During an intake interview, it should be emphasized that the goal of behavioral therapy is to prevent the need for long-term care, which would likely help the family come to terms with accepting the

behaviorist's help. Behavioral companies may need to take this approach to raising awareness of behavioral therapy goals to help motivate Hispanic-American families to seek behavioral care. All of these situations could be avoided if a culturally-competent care assessment was administered before or during services.

Research on the influence of culture on behavior. Researchers in behavior analysis have begun to investigate cultural influence on behavior. Rispoli et al. (2011) conducted a functional analysis examining the rate of challenging behavior when demands were given in Spanish versus English to a client. They implemented an ABAB design in which the language spoken was rotated between the A and B phases. The results showed that the percentage of challenging behavior was highest during the English condition. In addition to the fact that the parents were Spanish speaking, these results indicated that it would be culturally competent to provide intervention in their native language of Spanish, especially if the parents would feel this is the most socially acceptable course to take.

Calls for increased awareness of culture in behavior analysis. Brodhead, Durán, and Bloom (2014) reviewed the literature to determine whether cultural and linguistic information was provided in the participant descriptions of published studies. One hundred and three articles in the Journal of Applied Behavior Analysis and The Analysis of Verbal Behavior met the inclusion criteria. Of those, only nine articles provided information related to cultural and linguistic descriptors. Brodhead et al. argued

that this information should be included to enable replication with participants from different languages and cultures, which would add to the empirical validity of the research methodology. For clinical settings, they suggested careful consideration of subcultures. For example, all Spanish-speaking cultures are not the same. Another consideration should be the client's contact with two languages, one at home and the other at school. In this instance, conditional discrimination training should be implemented to help ensure the client will contact the contingencies in both environments (Brodhead, Durán, & Bloom, 2014).

Hammar and Rodriquez (2012) stressed how important it is to evaluate whether a client comes from an individualistic culture or a "communal" culture because it may influence caregiver preference for learning through communal activities or didactic instructions. They also stress that in many nonwestern countries, it is not acceptable to touch children as a way to praise them. Information such as this can improve the acceptability of future treatment. These authors demonstrate there has been attention brought to the subject in question within the field of behavior analysis, but there is much more that needs to be done.

Fong and Tanaka (2013) asserted that cultural competency should be a focus for behavior analysts and as such, appropriate measures must be taken to ensure clinicians are appropriately educated. The article suggests standards to guide responsible behavior when working with diverse populations; however, they have not been incorporated to

such a degree that it is required for all behavior analysts. Fong, Catagnus, Brodhead, Quigley, and Field (2016) emphasized that cultural contingencies shape behavior and this behavior could be unacceptable or unfamiliar to the behavior analyst, depending on their cultural background and knowledge. The client's culture has a substantial role in how they respond to contingencies. Therefore, it is crucial for the behavior analyst to gain sufficient knowledge and insight into the client's culture in order to blend their cultural contingencies with standard behavioral principles and provide the best quality of service possible. Fong, Ficklin, and Lee (2017) suggested that academic and professional organizations can help spread the notion that cultural competence is a significant issue and needs the full attention of all behavior analysts.

Are practitioners prepared to deliver culturally competent care? Beaulieu, Addington, and Almeida (2018) surveyed Board Certified Behavior Analysts about their training (i.e., fieldwork, coursework, on-the-job training, and continuing education opportunities) in relation to working with clients from diverse populations. The majority (88%) of respondents reported that training to work with clients from diverse populations is very or extremely important. However, the majority also reported that they received little to no training on the topic. Yet, the majority of respondents stated they were moderately to extremely comfortable (82%) and moderately to extremely skilled (86%) in working with clients from diverse populations. These practitioners may have an

inflated sense of their own cultural competence, considering they had little to no formal training.

This overconfidence may be reflected in a study by DuBay, Watson, and Zhang (2017). They surveyed Latino and non-Latino white parents of children with Autism Spectrum Disorder. The non-Latino caregivers felt their cultural needs were met and felt more included in conversations about treatment goals as opposed to Latino caregivers.

An emerging technology of culturally-competent care. Tanaka-Matsumi, Seiden, and Lam (1996) developed a cognitive-behavioral assessment known as culturally informed functional assessment (CIFA) which describes the participant's problems, demonstrates respect towards their culture, and negotiates the most reasonable resolution to all stakeholders. There are eight steps that try to match whether the client matches their culture through questions designed to see if the individual can meet the cultural demands that are expected of them. The eight steps are (a) assessment of cultural identity and acculturation, (b) presenting problems, (c) casual explanatory model elicitation, (d) functional assessment, (e) casual explanatory model comparison and negotiation, (f) treatment plan, (g) data collection and (h) other treatment structure. Clients record their own data. Ideally, behavior therapists should already recognize how a client's cultures differs from their own and how those differences may influence the client. This allows the behavior therapist to identify whether their culture is influencing

the dilemma or if the problem pertains to some other issue. Behavior analysts should continue to develop technology that promotes cultural awareness and sensitivity.

The call for training on culture among behavior analysts has grown over the years. With the ever-growing diverse population, it is time to take up that call. A great beginning would be to get behavior analysts thinking about how their clients' culture may impact the goals and treatments they develop. One way to accomplish that is for practitioners to ask culturally-based questions during the initial assessment or intake process.

Antecedent Interventions

Common strategies for training culturally-based care in the medical and educational fields is through workshops, training programs or coursework needed to receive a degree (Beach et al, 2005; Branch & Fraser, 2000; and MacAvoy & Lippman, 2001). The field of Applied Behavior Analysis is well-suited to build upon the current foundation by lending our unique strategies to improve skill acquisition and maintenance.

Antecedent interventions, such as checklists, typically serve as prompts to engage in the desired behavior. Prompts are low-cost and effective across a variety of settings (Bacon, Fulton, Malott; Brenske, Rudrud, Schulize & Rapp, 2008; Rafacz, and Boyce & Williams, 2011). Checklists can serve as a prompt to initiate and complete tasks. For example, Bacon, Fulton, and Malott (1983) found a 28% increase in completed tasks after

implementing a checklist with six participants. The authors asserted that three characteristics comprise a successful checklist intervention: task definitions, spaces to record behaviors and routine supervisor review.

Phillips (1998) provided a detailed look at 19 studies that focused on improving performance in the school system across a variety of behaviors. Six of the nineteen articles used antecedent interventions. Of those, two studies focused on the use of verbal or written prompts to facilitate skill acquisition among teachers. The other four studies concentrated on skill acquisition and generalizability of those skills among teachers. One of these studies determined that the amount of pre-planning done before class directly related to how successful the teacher was at incidental teaching. The other studies demonstrated that different combinations of antecedent interventions, depending on the environment, will increase the desired behaviors (Phillips, 1998). This demonstrates that written prompts are effective, and a checklist would serve this function.

Pronovost et al. (2006) demonstrated that checklists can improve cleanliness in a hospital setting. The checklist was issued to encourage workers to wash their hands, use full-barriers precautions during insertion of catheters, clean the skin, avoid the femoral site when possible, and remove any unnecessary catheters that could result in a decrease of catheter-related blood infections. The checklist was effective in reducing the number of illnesses related to unsanitary catheters. This demonstrates that checklists are a useful tool in prompting individuals to engage in certain behaviors.

Overall, antecedent interventions have proven to be useful to facilitate acquisition and generalization of skills among employees. However, there has been little research on using antecedents to evoke culturally-competent care. A structured interview checklist may increase the frequency of questions about culture during pre-intervention assessments. Other fields, such as psychology, routinely use structured interviews. These questions are like a checklist in that it serves as a prompt to engage in specific behavior, particularly verbal behavior. Common assessments that use this structure is the Achenbach System of Empirically-Based Assessment (ASEBA), Parenting Relationship Questionnaire (PRQ), and Readiness and Motivation Interview for Families (RMI-Family).

The ASEBA was validated to be effective in assessing behavioral, emotional, social, and thought problems and strengths in both children and adults from 54 societies and across 100 languages (Achenbach, 2015). This demonstrates that predetermined questions can be a useful tool for clinicians when determining an intervention if a diagnosis is given. The PRQ has been used to study aggression in identical twins (Walsh, 2016). Ball (2017) used the RMI-Family to analyze the relationship between children and caregivers when the child was determined to be obese. It was determined the tool was useful in understanding the family dynamic in order to provide the best care possible. These three assessment tools demonstrate that psychology commonly uses questionnaires/checklist to serve as prompts to engage in verbal behavior.

The field of behavior analysis has created structured interview checklists as well. For example, the Functional Analysis Screening Tool is a 16-item questionnaire about antecedents and consequences for problem behavior (Iwata & DeLeon, 2005). Another tool used to gather information is the Motivation Assessment Scale, which provides information on what item or event provides motivation for the client (Joosten & Bundy, 2008). The Performance Diagnostic Checklist - Human Services (PDC-HS) assesses the variables in the environment that are contributing to an employee's suboptimal performance (Carr, Wilder, Majdalany, Mathisen & Strain, 2013). Wilder, Lipschultz, & Gehrman (2018) determined the PDC-HS was effective for identifying the cause of poor performance across all four domains, (a) training, (b) task clarification and prompting, (c) resources, materials, and processes, and (d) performances consequences, effort and competition. Fisher, Piazza, Bowman, and Amari (1996) found that caregivers ranking of preferred items lead to more potent reinforcers then the standard set.

There is a precedent in the field of psychology and to some degree, Applied Behavior Analysis, to use checklists to help inform intervention. Checklists have been shown to be an effective tool to prompt an individual to engage in certain tasks; however, checklists have not been used to prompt cultural questions. Based on the growing need for culturally-competent care, the purpose of the proposed study is to evaluate the effects of a structured interview on the frequency of questions asked about culture during mock intake interviews.

Method

Participants

Three clinicians who provided behavioral interventions to clients were recruited to participate in the study. No one was excluded on the basis of gender, race, ethnicity, or age. During the informed consent meeting, participants were told they would receive training on conducting phone intake interviews, but were not told that the researchers were specifically seeking to increase questions related to culture until after baseline was completed. We wanted to determine whether the participants would ask questions about culture in the absence of any specific instructions to do so. All participants were debriefed on the true purpose of the study after they completed sessions.

Michelangelo was a Caucasian male in his early thirties. He was a Registered Behavior Technician (RBT) who had about three months experience providing direct services in an Early Intensive Behavioral Intervention (EIBI) program for children with autism. He had no prior experience working directly with individuals with developmental delays. Michelangelo was enrolled in an online-campus hybrid Bachelor of Science degree program in psychology with an emphasis in behavior analysis. He reported that he had not had any training on cultural competence in his coursework or on the job.

Diego was a Caucasian male in his early thirties. He had 10 months experience working as an RBT with children with autism in an EIBI clinic and over two years

experience working with adults with developmental delays. Diego did not have any coursework or formal training in behavior analysis beside that which was provided in on-the-job training, nor had anyone ever discussed cultural competence in any of his work settings.

Frida was a Caucasian female in her thirties. She was a Board Certified Behavior Analyst (BCBA) enrolled in a doctoral program in Behavior Analysis. She had over a decade of experience working with children with autism and other developmental delays. She reported that she had not had any formal or informal training on culturally-competent care.

Confederates

A confederate played the part of a parent of a child with autism during mock intake interviews. Sessions were conducted over the phone to control for the effects of the confederates' physical features (e.g., skin color, clothing) that may influence certain types of verbal utterances, based on each participants' individual learning histories. The confederates were five students enrolled in graduate programs in behavior analysis, ranging in age from 22 to 27. There were four female confederates and one male confederate, representing diverse backgrounds that included Chinese, Asian Indian American, Native Islander, and Caucasian (Italian-Irish American and British-German American).

Setting and Materials

Sessions took place in a consultation room at a university-based autism treatment clinic located in the southeastern United States. There were tables, a phone, lamps, chairs, sofas, a video camera, and wall decor present in the room where the participants made phone calls. The confederates took phone calls from different locations, usually in a different building. On occasions in which the confederates took phone calls within the same building, they were located on a different floor, out of sight and earshot from the room where the research sessions were being conducted.

The confederates were given a phone and an information sheet about a hypothetical offspring prior to each session. Twenty-five different information sheets were created to avoid participants contacting the same hypothetical client more than once; they were assigned to each participant in random order. These information sheets were designed to represent a variety of cultures by gathering information from Center for Global Education and the Pew Research Center as well as informally interviewing people from various cultural backgrounds about their own family customs. (See Appendix A for examples of information sheets.) None of the hypothetical clients were described as having any serious behavior problems or medial issues, to prevent participants from asking a variety of follow-up questions on those topics, and thus limiting the amount of time they could ask about culture. The confederates were instructed to respond only to

the questions that were asked during the mock intake interview and refrain from volunteering any information from the information sheet that was not asked.

During the intervention sessions, a piece of paper containing the programmed portion(s) of the Culture Interview Checklist (CIC) was on the table in front of the participants. The questions on the checklist were developed by reviewing previously published sources on cultural awareness in education and medicine (e.g., Lynch & Hanson, 1998; Saville-Troike, 1978). Appendix B contains a copy of the CIC.

Experimental Design

A multiple baseline across target behaviors (Johnston & Pennypacker, 2009) was used to evaluate the effects of the CIC on the frequency of questions asked about culture during mock phone intake interviews. Portions of the checklist were given to participants at varying points in time. In other words, they were provided the checklist for one category of culturally-based questions, while the sections on the other categories remained unavailable. The multiple baseline design demonstrated experimental control because the dependent variable (frequency of culturally based questions) only increased when the independent variable (checklist) was introduced in each of the three tiers. The sequence in which the categories were introduced was randomized across participants to control for order effects.

Dependent Measures

The three categories of questions about culture were (a) communication, (b) diet, and (c) reward/discipline. See Table 1 for the checklist containing the list of questions. The primary dependent variable was the frequency of questions asked about culture from each category of the checklist. Communication-based questions were defined as any questions or statements that pertained to language (e.g., Spanish) or gestures (e.g., “Are there any gestures in your culture that are offensive?”). Diet-based questions were defined as any question or statement pertaining to the handling or consumption of food or liquids not related to medical or behavioral problems. For example, "Does your child have any food allergies?" would not have been scored as a diet-based cultural question, but “Does your child have restrictions on what he is allowed to eat on certain days of the week or times of the day?” would have been scored as a diet-based cultural question. Lastly, discipline/reward-based questions were defined as any questions or statements pertaining to expectations about how the child should or should not be behaving (e.g., "What percentage of the time is it acceptable for your child to follow a command delivered by a caregiver?"), and values about the use of programmed consequences (e.g., “How do you feel about giving rewards for good behavior?”). If two or more questions on the checklist were combined into a single question, it was only scored once.

Secondary dependent variables were the frequency of questions about culture unrelated to the categories that appeared on the checklist, coded as “nontargeted culture

questions" (e.g., "Do you have a preference about people wearing shoes in your house?") and questions unrelated to culture, coded as "all other questions" (e.g., "How many people live with your child?). All sessions (pre-assessment, baseline, and treatment) were videotaped and scored later by the primary investigator. Scoring was done by coding each question or statement according to the operational definitions described above.

Procedure

Ten-min sessions took place two to five times per week. The participants were seated in a consultation room with a phone and given an instruction, per the condition in effect. The experimenter left the room and observed through a one-way mirror.

Baseline (BL). At the onset of each session, the participants were told the name of the child and parents, age, diagnosis and gender of the hypothetical client about whom they were to ask questions as well as the confederate parent's pseudonym. They were then given a phone number to call and the instruction, "Ask any questions you feel are relevant to the care of the child."

Vague prompt (VP). These sessions were conducted in the same manner as baseline, except we added the instruction, "Be sure to ask questions about their culture" at the onset of each session. The purpose of this statement was to determine whether an instruction alone would increase questions related to culture.

Culture Interview Checklist (CIC). During this phase, the participants continued to receive the instructions as described above. In addition, they were given the section of the checklist programmed for intervention. In other words, if the checklist intervention was in effect for the communication questions, the communication-based questions checklist was provided. As subsequent question types were introduced into the intervention, the participant was allowed to keep all prior checklists for use during mock interview sessions.

Interobserver Agreement. Data were collected by a second observer for 33% of sessions across all phases of the study and compared to the primary investigator's data. Interobserver agreement (IOA) was calculated using an exact count by category. After each session, the number of occurrences scored by the observers was compared for each dependent variable. If both observers scored the same number of occurrences, an agreement was recorded for that dependent variable in that session. If a differing number of occurrences was scored, a disagreement was scored. The number of agreements was divided by the number of agreements plus disagreements and multiplied by 100. Diego and Frida's IOA score was 100% across all conditions. For Michelangelo, IOA was 100% in the baseline and vague prompt phases and averaged 93.33% (range = 80 to 100%) in the vague prompt phase.

Procedural Integrity. Treatment integrity data were collected during all phases of the experiment to determine if the sessions were implemented as designed. The

integrity checklist (see Appendix C) required the experimenter to score yes or no for the following steps: the camera was turned on, the session number, participant name, and date were stated, the session was 10 minutes, the confederate parent only answered the questions and did not provide too much detail, the participant was given a sheet of paper with demographic information about the hypothetical client prior to each sessions, and the programmed statement corresponding to the condition in effect was delivered before each session. Treatment integrity data were collected in 30% of sessions for Diego and 27% of sessions for both Michelangelo and Frida. The treatment integrity score for baseline was 100% for all three participants. During treatment, the mean score for treatment integrity was 100% for Frida, 97% (range = 86 to 100%) for Michelangelo and 94% (86 to 100%) for Diego.

Results

Michelangelo

Figure 1 depicts the data for the first participant, Michelangelo. During baseline, Michelangelo asked zero questions about culture in all three categories. When the vague prompt was introduced, the frequency of questions increased to an average of 0.25 per session (range = 0 to 1) for diet-based questions, while questions about the remaining two categories remained at zero. When the checklist was introduced for the discipline/reward questions, the frequency of questions increased to an average of seven per session (range

= 5 to 8), while questions about the remaining two categories remained low. Upon introducing the checklist for diet-based questions, Michelangelo quickly met the mastery criteria for this category (average = 6.3, range = 0 to 9), but did not ask questions related to communication. Once the checklist containing questions about communication was introduced, the mastery criteria was achieved after a few sessions (average = 4.67, range = 0 to 9).

Table one contains a summary of the average number of questions across each phase and participant for the three categories of questions, all other questions related to culture, and all non-culture questions. During the baseline condition, Michelangelo asked an average of 0 “other cultural questions” and an average of 25 questions (range = 19 to 32) unrelated to culture. When the vague prompt was introduced, he asked 1.25 questions (range = 0 to 3) about culture unrelated to the topics on the checklist and 26.75 questions (range = 22 to 35) unrelated to culture. In the checklist phase, he asked an average of 1.5 (range 0 to 5) other cultural questions and an average of 8.67 (range = 4 to 15) questions unrelated to culture.

Table one also contains a summary of the percentage of cultural questions asked across each phase. During the baseline condition, Michelangelo asked 0% of cultural questions compared to all questions. When the vague prompt was introduced, he asked 5.3% cultural questions (range = 0 to 13.9). In the checklist phase, he asked 70.79% cultural questions (range = 53.12 to 87.88).

Diego

Figure 2 depicts the data for the second participant, Diego. During baseline, Diego asked zero questions about culture in all three categories. When the vague prompt was introduced, the frequency of questions about communication increased to an average of one per session (range = 0 to 2), while questions about the remaining two categories remained at zero. When the checklist was introduced for the diet-based questions, the frequency of questions increased to an average of seven per session (range = 7), while questions about the remaining two categories remained low. Upon introducing the checklist for communication questions, Diego quickly met the mastery criteria for this category (average = 9, range = 9), but did not ask questions related to discipline/reward. Once the checklist containing questions about discipline/reward was introduced, the mastery criteria was quickly achieved (average = 8, range = 8).

During the baseline condition, Diego asked an average of 0 questions about culture that were not targeted on the checklist and an average of 12.67 questions (range = 10 to 14) about topics unrelated to culture. When the vague prompt was introduced, he asked 0.2 other cultural questions (range = 0 to 1) and 28.8 questions (range = 24 to 36) unrelated to culture. In the checklist phase, he asked an average of 3.33 (range 2 to 6) other cultural questions and an average of 6.67 (range = 4 to 9) unrelated to culture questions.

Table one also contains a summary of the percentage of cultural questions asked across each phase. During the baseline condition, Diego asked 0% of cultural questions compared to all questions. When the vague prompt was introduced, he asked 4% cultural questions (range = 0 to 10.34). In the checklist phase, he asked 81.48% cultural questions (range = 76.9 to 87.5).

Frida

Figure 3 depicts data for the third participant, Frida. During baseline, Frida asked zero questions about culture in all three categories. When the vague prompt was introduced, the frequency of questions about discipline/reward increased to an average of 0.55 per session (range = 0 to 2), while questions about communication increased to an average of 2.55 per session (range = 0 to 6) and questions about diet remained at zero. When the checklist was introduced for the diet-based questions, the frequency of questions increased to an average of 0.75 per session (range = 0 to 2). An additional instruction (i.e., “Please be sure to ask all questions on the checklist”) was then added for all of the following phases. Once the statement was introduced, the diet-based questions increased to mastery criteria (average = 6.2, range 6 to 7), while questions about the remaining two categories remained low. Upon introducing the checklist for reward/discipline questions, Frida quickly met the mastery criteria (average = 7.7, range = 6 to 9), but questions related to communication remained low. Once the checklist

containing questions about communication was introduced, the mastery criteria was quickly achieved (average = 8, range = 8).

During the baseline condition, Frida asked an average of 0.3 (range = 0 to 1) questions about culture that were not on the checklist and an average of 28.67 questions (range = 23 to 37) unrelated to culture. When the vague prompt was introduced, she asked an average of 3.2 (range = 1 to 6) other cultural questions and 27 non-culture questions (range = 24 to 31). During the vague prompt, checklist and instruction phase, she asked 27.25 questions not related to culture (range = 22 to 34) and two other cultural questions (range 0 to 5). In the checklist phase, she asked an average of 4 (range 3 to 5) other cultural questions and an average of 16.67 (range = 13 to 19) non-culture questions.

Table one also contains a summary of the percentage of cultural questions asked across each phase. During the baseline condition, Frida asked 1.03% of cultural questions compared to all questions (range = 0 to 2.23). When the vague prompt was introduced, she asked 18.8% cultural questions (range = 7.14 to 32.86). In the checklist phase, she asked 64.26% cultural questions (range = 57.78 to 70.42).

Discussion

For two of the three participants, a prompt plus the checklist increased the frequency of questions about client culture during mock intake interviews. When the prompt and Culture Interview Checklist (CIC) were removed, responding fell below

mastery criteria, but rebounded when the checklist was reintroduced. The final participant, Frida, did not meet the mastery criteria in the presence of the CIC and prompt to ask questions about culture. The addition of the instruction, “Be sure to ask all questions on the checklist” increased responding to the mastery criteria. These data suggest that a checklist with a prompt is an effective antecedent intervention to improve the frequency of cultural questions asked during intake interviews.

In addition to increasing questions about culture, the total number of questions asked by each participant increased from baseline to vague prompt condition. For two of the three participants it increased from vague prompt to the checklist condition. Frida asked an average of 29 questions during baseline, 32.8 questions during the vague prompt phase, and 36 questions during the checklist phase. Michelangelo had a similar pattern of responding by increasing from 25.0 in baseline to 28.4 in the vague prompt phase. However, he slightly decreased his responding to 28.2 during the checklist phase. Diego showed the most growth from baseline to the vague prompt phase. He increased his average of 12.67 questions per session during baseline to 30 questions per session in the vague prompt condition, then to 36 questions during the checklist phase. Diego increased the frequency of questions asked with just a prompt even though the cultural questions asked during the vague prompt only increased in one tier to an average of 1.44. This suggests that the checklist was effective at prompting the participants to ask cultural questions but did not limit them to just asking questions on the checklist.

Frida showed the greatest improvement from baseline to the vague prompt phase, but still did not meet mastery criteria for any of the questions. The rates of "other" cultural questions (not on the checklist) increased slightly in all phases except for one participant. Frida increased from an average 0.33 other questions asked to 3.2 to 4, respectively. Diego increased from an average 0 questions asked to 0.3 to 5, respectively. However, Michelangelo increased the average number of other cultural questions asked from 0 to 1.25, then to 1.50.

Previous Research

Beaulieu, Addington, & Almeida (2018) found that behavior analysts had little exposure or training regarding culturally-competent care at any level: bachelors, masters, or Ph.D. The authors suggested future researchers could ask therapists to perform a mock intake interview and observe whether they asked culturally-based questions. The present study extends Beaulieu et al. (2018) by demonstrating that clinicians do not reliably ask culturally-based questions, even when prompted to do so. This highlights the social significance of the issue since clients are immersed in their culture.

The findings of this study were consistent with previous research on using checklists to prompt desired behaviors in employees. For example, Pronovost et al. (2006) found that a checklist helped improve hospital employees' sterilization procedures. However, the participants in that study required additional coaching until

their behavior increased to mastery criteria. In contrast, two of the three participants in the present study did not require an additional intervention. This is likely due to the nature of the performance. Sterilizing medical equipment is a motor performance which may require modeling and feedback to be implemented accurately. In this study, the performance involved reading questions aloud from a piece of paper, which as a generalized operant (Pronovost et al., 2006), was already present in the participants' repertoires.

Additionally, in a literature review, Phillips (1998) found that two of the nineteen studies used written or verbal prompts for participants to engage in the desired behavior. Since the present study used both vocal and written prompts for participants to engage in the behavior, it generally aligns with the findings of the other two studies. However, the vocal prompts in the present study was not enough for participants to meet mastery criteria, but the written prompts with the checklist was needed. The checklist likely functioned as a form of task clarification that prompted the participants to engage in the targeted behavior.

An example within psychology for using a checklist or questionnaire is the ASEBA which was validated to be effective in assessing behavioral, emotional, social, and thought problems and strengths in both children and adults from 54 societies and across 100 languages (Achenbach, 2015). The CIC is not meant to be used as a diagnostic tool, rather an aide in gathering information about the culture of potential

clients. In applied behavior analysis, there is the Performance Diagnostic Checklist - Human Services (PDC-HS) which assesses the variables in the environment that are contributing to an employee's suboptimal performance (Carr, Wilder, Majdalany, Mathisen & Strain, 2013). Again, the main difference is that the current intervention is not meant to assess variables that might be maintaining the behavior, rather to provide information to individuals that could guide clinical care. Ultimately the after more mentioned checklist likely serve as a prompt for an individual to engage in some verbal behavior as the present studies checklist does as well.

Effects of level of experience

Although the CIC was effective at changing behavior for two of the three participants, it should be noted that Frida required an additional instruction to increase the number of questions she asked about culture to a significant degree. One possible explanation is Frida's extensive history with doing intake assessments with parents. It is likely that she has asked certain types of questions in the past and those same questions were brought to strength in this study. It is also likely that her extensive experience as a clinician has led her to be able to make predictions about interventions that would be indicated given the information supplied by parents. The topics she brought up that were coded as "all other questions" were primarily related to the hypothetical clients' behavioral excesses and deficits, such as, "Does your child engage in any self-injurious

behaviors" and "How many words does she use when speaking or does she just point to things she wants?" Thus, a 10 min session may not have been long enough to capture whether Frida would have asked questions about culture if she had first had sufficient opportunity to get information about the topographies of the hypothetical children's behaviors. However, even after she was given the first checklist, she did not significantly increase the number of questions she asked. During the post-experiment debriefing session, Frida indicated that she did not judge the questions about culture to be as important as the questions about the topography of responses, but the latter would have increased in importance if she had longer than 10 min to conduct the interview. Future researchers should consider giving more detailed information to the participants before each session, such as sample assessment reports, to decrease questions related to the children's current skill sets. Another option would be to extend the duration of sessions.

In contrast to Frida's extensive history in the field, Diego had a high school diploma and worked in various nonprofessional jobs before working as direct care staff for adults and then children with developmental disabilities. His position involved implementing protocols that were created by a BCBA, and did not require him to interact with caregivers or guardians about treatment planning. During the baseline and vague prompt conditions, Diego was often observed engaging in long pauses and adjunctive behavior, such as drumming his fingers and tapping a pen. On several occasions, he told the confederate parents that he was taking notes, even though he was not doing so, in an

apparent effort to stall until he could think of another question. Diego asked an average of 12.7 questions in baseline, in contrast to Frida's average of 29 questions. While it is difficult to draw any conclusions about the effects of the level of experience from so few participants, these data are suggestive.

To lend further support to the notion that experience influenced the behavior of the participants, Michelangelo asked an average of 25 questions in baseline. Like Diego, Michelangelo was a direct-care staff at the time the study was conducted, but he had previously worked as a customer service representative for an autism treatment clinic. In this role, one of Michelangelo's primary job responsibilities was to interact with caregivers of potential clients over the phone. During all sessions, Michelangelo appeared to be comfortable conducting the phone interviews, asking questions in a friendly and conversational tone. Once the checklist was added, he added transition statements between topics instead of reading the questions on the checklist in sequence. To further explore the effects of experience on the frequency and type clinician's questions during interviews, future researchers can conduct group design studies, which are better suited to answer questions of this sort.

Effects of punishment history

In addition to the level of experience in the field affecting performance, it is highly probable that the participants all have a history of fine-grained discrimination

training with respect to the kinds of things they say about culture. This was particularly salient when, after introducing the vague prompt, Michelangelo stated, “I do not know how to ask cultural questions without being offensive.” This statement indicates that Michelangelo may have had a history of punishment for talking about culture. Since all three participants were of Caucasian descent, they may have been worried that they would be perceived as insensitive when asking questions about culture. Perhaps they were told by their parents or a previous employer to refrain from discussing the topic. They could have also had a bad experience with a friend, coworker, or significant other.

It is notable that, even after being prompted to ask questions about culture, none of the participants increased doing so to a significant degree. Of those the questions that were asked, communication was the most likely to come up, specifically related to the language that was spoken in the home and how often it was spoken. One advantage of using an interview checklist is that it may help alleviate clinicians’ discomfort with talking about culture. The present study shows that the CIC was an effective intervention to help the participants gather the desired information. Another benefit to using a checklist is that it would standardize the intake process, which could help normalize asking these types of questions.

Variability of responding

Visual inspection of Michelangelo's data reveal some variability in all three tiers of the graph. Mastery criteria were arbitrarily set at five cultural questions for each tier. This was a conservative mark given the sessions were only ten minutes long. The length of time could have influenced his behavior given his data becomes more variable when a new portion of the checklist was introduced. When the second portion of the checklist was introduced, his data were on an upward trend until it fell some. He also struggled with pacing his interview to leave enough time to ask all of the questions. Routinely when a new portion of the checklist was introduced, he responded at zero for the first session due to sticking to the same routine he established in previous sessions. After a few sessions, he worked his way up to the mastery criteria by omitting some questions he had previously asked or by starting with the questions on the checklist first. Additionally, there were some questions on the checklist that could be combined to form a single question. In this scenario, it would still only be scored as one question even though it contained information regarding two of the questions on the checklist. Frida also had some variability in her responding related to combining questions.

Acceptability of the intervention

Following the completion of the study, a questionnaire consisting of twelve questions was given to the participants. See Appendix D for a copy of the questionnaire.

All three participants “strongly agreed” that the topic is relevant for clients with autism. Michelangelo marked “strongly agree”, Diego marked “somewhat agree” and Frida marked “somewhat disagree” to when asked if the questions on the checklist were relevant to the clinical needs of a potential client. Michelangelo marked “strongly agree” while the other two marked “somewhat agree” when asked I the checklist was a useful guide for asking questions related to culture.” Two participants “strongly agreed” that the checklist was well designed and easy to read while the Frida marked “somewhat disagree”. Frida marked “somewhat agree” to indicate that the intervention caused stress or anxiety about asking questions related to culture,” while Diego marked “disagree” and the Michelangelo marked “strongly disagree”. Michelangelo marked “strongly agree” that the intervention took an acceptable amount of time to complete, while Diego marked “somewhat agree” and Frida marked “somewhat disagree.” Two participants marked “somewhat agree” to indicate that they felt comfortable during session, while Frida marked “somewhat disagree”. All three marked “somewhat agree” that the checklist helped improve their ability to ask cultural questions. Diego “strongly agreed” that the number of questions asked was appropriate for the length of time given to conduct the interview, while Michelangelo marked “somewhat disagree” and Frida marked “strongly disagree”. Two participants strongly agreed that the checklist included sufficient, while Frida marked “somewhat agree”. Diego strongly agreed that he felt more aware of how culture can influence care while the other two participants marked “somewhat agree”. All

indicated they “somewhat agree” with the statement, “I plan to incorporate cultural questions into my repertoire when appropriate”.

Limitations

A few limitations of this study should be noted. While this study focused on a checklist as an antecedent intervention, it is possible that another intervention could be just as or more successful. For this study, participants were required to conduct a ten-minute phone interview in which they were responsible to gathering information about the child. They were only given the name, gender, age, and diagnosis before every session. Due to the time restraint and little information provided, it may be possible that sessions were not representative of a real intake interview for which the client is typically present and is not time-limited. This could also possibly explain why one participant required an additional statement to be able achieve mastery criteria. However, even when the participants were prompted to ask questions specifically about culture, they demonstrated only a minor increase, which may indicate that they would not have asked a larger set of questions if they only had more time.

Additionally, we did not control for the number of times participants were exposed to each confederate. While the participants only interviewed about each hypothetical child once, they did speak to the same five confederates playing different roles. This was due to the availability of the participants and the confederates.

Additionally, given that there was a minimum of twenty sessions for each participant, there were not enough confederate volunteers to only have the confederate exposed to the participant one time. The participants were informed ahead of time that the people on the other end of the phone were confederates; however, an uneven number of exposures to each confederate could be a source of uncontrolled variability that may have influenced responding. The rationale for conducting a phone interview instead of an in-person interview was to mitigate stimulus control related to the physical features of the confederates. For example, a person wearing a hijab may evoke cultural utterances more frequently than another person who is not wearing a hijab. However, the sound of a person's voice, specifically accents, may have also exerted stimulus control to a certain extent.

A final limitation that should be mentioned is that cultural questions for each category were determined by the number of questions that were asked off of the checklist. The checklist is not an exhaustive list of what consists of culture across communication, food, and reward and discipline. While valuable cultural questions could have been asked, they would not have been scored unless they were on the checklist. Other cultural questions were scored in a "other cultural question" category.

Future Research

The limitations and novelty of this study provide a foundation that future studies can build upon. Future research could compare different antecedent interventions to the checklist to determine effectiveness and efficiency of the intervention or how a consequence intervention may have influenced the results. Another component that could be looked at is whether the therapists would have changed the questions they asked if they had been given more information at the onset of the experiment. Given that the checklist was able to increase responding for two of the three participants to mastery criteria in the first tier, it suggests that it is an efficient intervention. Further, Diego met mastery criteria immediately when each portion of the checklist was given. Michelangelo met mastery criteria immediately upon the first portion, within two sessions for the second portion, and within four sessions for the third portion. The checklist also kept responding at mastery levels once they achieved mastery criterion. Frida may not have reached mastery criteria immediately upon the delivery of the checklist, but once the additional instruction was provided, each time the next portion of the checklist was given, she immediately met mastery criteria. Pronovost et al. (2006) demonstrated that a job aid such as a checklist does not need to be faded, given its low cost, ease of implementation, and the consistency of responding it demonstrated. Therefore, the added benefit of this intervention is that it would not need to be faded.

In addition, it would be valuable to explore whether the duration of the session affected responding. Researchers can also examine the effects of in-person interviews versus phone interviews. The sight of the confederate parents may evoke some types of questions more readily since there were times on the phone that participants paused to take notes which disrupted the flow of the conversation. It is possible that the flow in person could have some pauses, but it is likely it would be reduced due to the presence of the other person.

Future researchers could also run out the last two conditions of the experiment to determine what would occur if the conditions were not just probes. This would provide insight into whether the vague prompt and the checklist are necessary to meet mastery criteria or if the checklist by itself would suffice. Another variation would be to examine how cultural questions could maintain once the intervention is withdrawn. The goal of the intervention is to maintain the levels of responding since these questions contain a high level of social validity. Especially since it is likely that a therapist may go a significant amount of time not conducting an intake interview. A job aid such as the checklist in the present study would be an ideal prompt to ensure the therapist is touching on all relevant information.

The checklist itself could be manipulated to determine if it would increase questions about different topics. For example, the current checklist mainly focusses on ethnic and religious influences. The checklist could be edited to include questions that

may be impacted by age, geographical location, marriage status, income, educational status, sexual orientation, physical/mental ability, occupation, veteran status, among others.

Finally, the participant pool could be expanded upon to determine how the results may have differed for people with different levels of education and experience. For example, the participants in the current study were a full-time staff person, a student enrolled in a full-time online Master of Education program in applied behavior analysis, and a doctoral student who had over 10 years of experience in the field. Future studies could include more Board Certified Behavior Analysts (BCBAs) or Board Certified Behavior Analyst – Doctorals (BCBA-Ds) to determine if the results would change or if the additional statement would be required as it was for the BCBA in the present study.

The purpose of the present study was to begin researching means to increase cultural competency in the field of behavior analysis. The results suggest that clinicians may need additional support or training to ask cultural questions during intake interviews, which could impact care of the client. Wolf (1978) argued in favor of including social validity measures as a way to receive feedback on the interventions that are implemented. Value can be found if consumers of behavior analytic services are more likely to judge the behavioral interventions as socially significant.

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Appendix A
Table 1

Mean Rate of Questions Asked Across Categories

	Diet	Comm	R/D	Non-targeted Culture Questions	All Other Questions	Percentage of Cultural Questions
Frida						
BL	0.0	0.0	0.0	0.3	28.7	1.0
VP	0.0	2.4	4.6	3.2	27.0	18.9
CL	4.6	8.0	7.6	4.0	16.7	64.26
Diego						
BL	0.0	0.0	0.0	0.0	12.7	0.0
VP	0.0	1.4	0.0	0.2	28.8	4.0
CL	7.0	8.0	9.0	3.3	6.67	81.5
Michelangelo						
BL	0.0	0.0	0.0	0.0	25.0	0.0
VP	0.3	0.0	0.0	1.3	26.8	5.3
CL	5.9	5.6	6.5	1.5	8.7	70.8

Appendix B

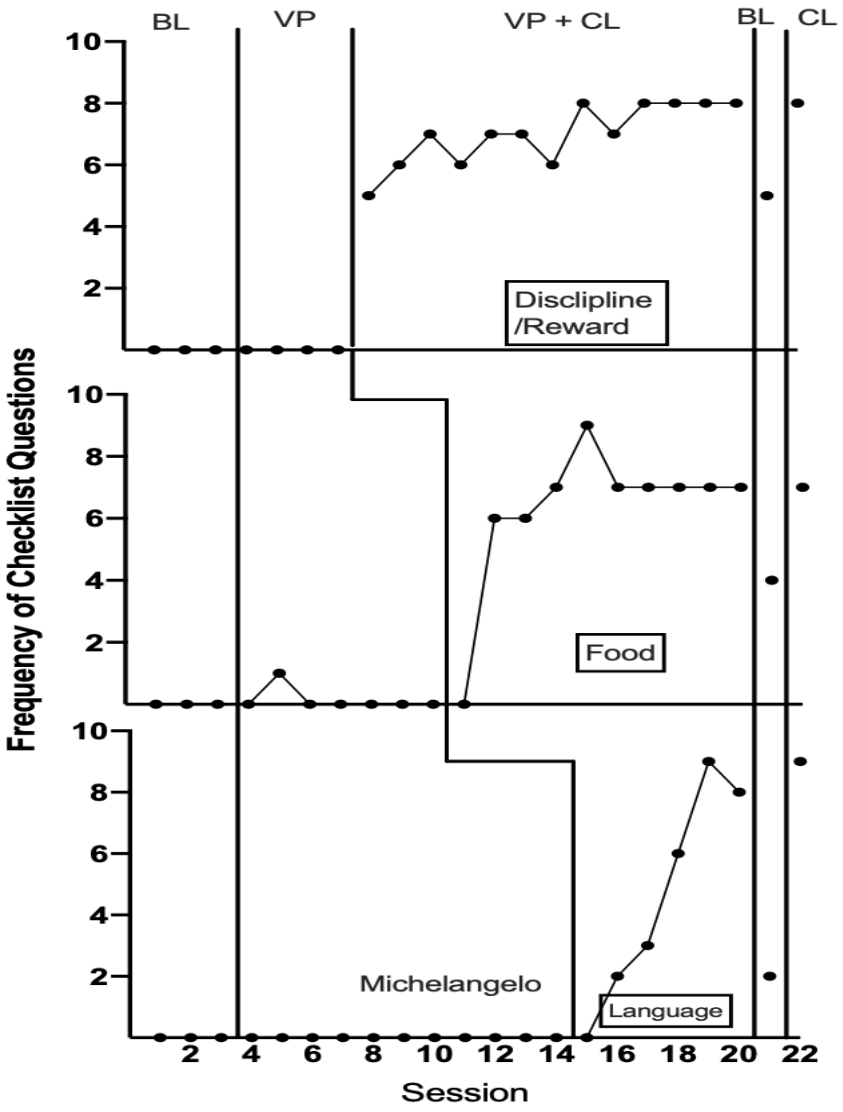

Figure 1. Frequency of culturally-based questions about food, discipline/reward, and language that Michelangelo asked during 10-min mock interview sessions, across baseline, vague prompt, and checklist and follow-up conditions.

Appendix C

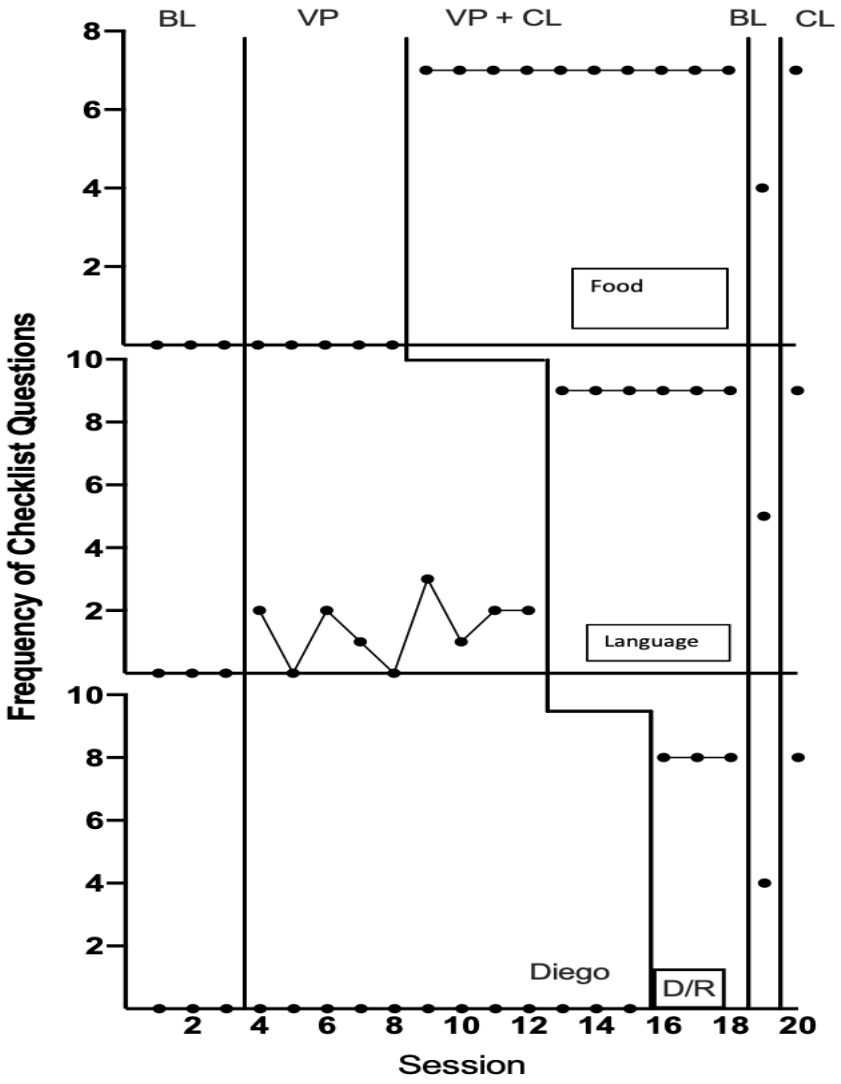

Figure 2. Frequency of culturally-based questions about discipline/reward, language, and food that Diego asked during 10 min-mock interview sessions, across baseline, vague prompt, and checklist conditions, as well as the follow-up probes.

Appendix D

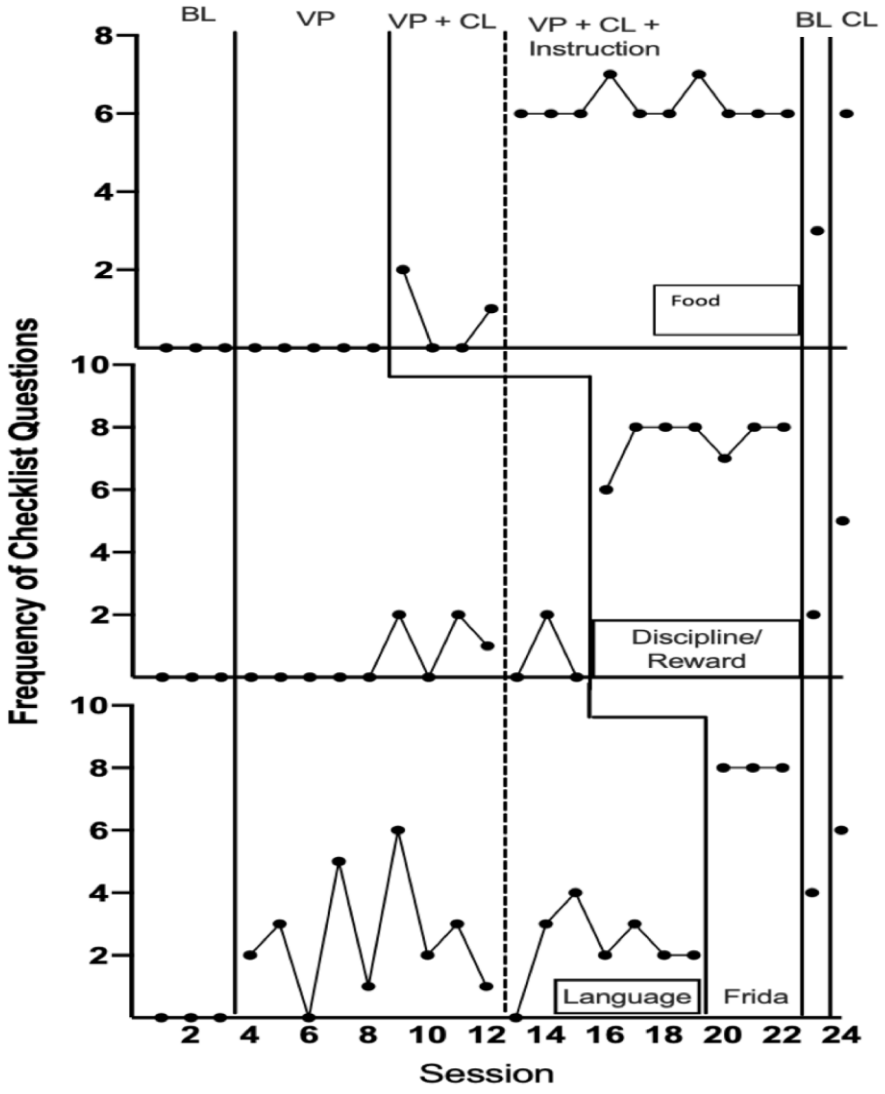

Figure 3. Frequency of culturally-based questions about discipline/reward, religion, and food that Frida asked during 10-min mock interview sessions, across baseline, vague prompt, checklist and follow-up conditions.

Appendix E

Chinese Client Fact Sheet

1. Parents – Married. Mr. Eddie Wong and Mrs. Jessica Wong. Fluent in both Chinese and Mandarin.
2. Daughter (Harmony) – Diagnosed with Autism Spectrum Disorder at the age of three. Received services for a year.
3. Parents immigrated to America a year before Harmony was born.
4. Language information – Parents are fluent in Mandarin and English. Speaks predominantly in Mandarin at home. Parents report that the child follows commands in Mandarin better than commands in English. We keep our shoulders firm and slightly bow our head when we greet one another as a way to show respect. There is no specific way to say goodbye.
5. Dietary information – the child is not allowed any food that contains high fructose corn syrup or is heavily processed. She not allergic to any food. Please provide us with ingredient information before using any item as a reward. She has no medical restrictions. When a food item is presented it should always be accepted even if it is not consumed. It is a sign of respect to gracefully accept all gifts, even food or drinks. Dumplings are made during Chinese New Year and it customary for the children to help wrap the dumplings. Mooncakes are consumed during Mid-Autumn festival. Sharing food from a communal plate is appropriate, but food should never be taken

from another person's plate unless it was offered. If there is only one item left on the communal plate, it should be offered to the group before just taking it for yourself. Chopsticks are the utensils used when eating.

6. Religion based information – There are no specific religious beliefs that should impact my child's care. My child celebrates the Mid-Autumn Festival and Chinse New Year, they will be unavailable for services on those days. There are no holidays that should be avoided. We do not have a preference for the gender of therapist. We do not have any religious customs that should be known at this time.
7. Reward/Discipline Information – A child should always follow through with a command from a caregiver. Rewards should be reserved for excellent work and be used sparingly. When the child misbehaves, they lose access to their favorite toy or item for at least a week depending on what they do. Physically restraining my child is unacceptable. If you gain my approval before implementing, I would consider it.

Arabian Client Fact Sheet

1. Parents – Married. Mr. Obadah MousMous and Mrs. LuLu MousMous. Fluent in English and Arabic.
2. Daughter – Khalifah MousMous was diagnosed with Autism Spectrum Disorder at five years old and has never had services before.
3. Parents were born in America.

4. Language Information - Parents are fluent in Arabic and English. Speaks predominantly in English at home except for prayers. Salaam is used for greeting members of faith, other than that a typical greeting would suffice. As-salaam ‘alaykum is used to say goodbye to members of faith other than that no specific greeting is used. A greeting with the left hand would be highly offensive since the left hand is seen to be unclean.
5. Dietary information – the child is not allowed any food that contains pork products or animals that live both in land and water (frog). She is not allergic to any food. During the holiday of Ramadan my child is not allowed to drink anything besides water or eat while the sun is up. Sharing food is permitted if asked. Eating with utensils are acceptable.
6. Religion based information – The child will need to perform the dawn prayer, the noon prayer, and afternoon prayer. The child will not have services on Eid Al-Fitr which celebrates the end of Ramadan. We do not object them knowing about other holidays and traditions as long as they are not presented as facts. We would prefer a female therapist to work with our daughter, especially if you provide services in home.
7. Reward/Discipline Information – A child should always follow through with a command from a caregiver. Rewards should be reserved for excellent work and be used sparingly. When the child misbehaves, they must understand the severity of

disobeying and the eternal consequences it may bring. It is better to learn early to better prepare them for life. Physically restraining my child is unacceptable. If you gain my approval before implementing, I would consider it.

Hispanic Client Fact Sheet

1. Parents – Married. Mr. Mario Ruiz and Mrs. Maira Ruiz. Fluent in English and Spanish.
2. Son – Miguel Ruiz was diagnosed with Autism Spectrum Disorder when he is two years old. He has been receiving services for two years.
3. Both parents were born in the United States.
4. Language Information - Parents are fluent in Spanish and English. Speaks predominantly in Spanish at home. Our parents migrated from Spain, and they taught us to never what Americans would consider the “rock on” hand gesture as it meant that a man was cheating on his wife. We would like our son to understand this as well. It is customary for a firm handshake with eye contact to be given with strangers and more casual pleasantries with friends and family. Buenos Dias is commonly said with a handshake. Our son should understand that woman may kiss cheeks to exchange greetings but it is not acceptable in many circumstances for hi to do so.
5. Dietary information – the child does not have any medical or non-medical food restrictions. In our Spanish culture it is better to refuse an item then to let it go to

waste. No food item is specifically reserve for the festival. Sharing is recommended and it is polite to ask. No specific utensils need to be used and some items it is customary to eat with your hands as long as they are clean.

6. Religion based information – We practice Catholicism and do not believe this will impact our child's care. Predominantly in America, our religious holidays are non-work day specifically Christmas and Easter. However, we will decline services on Good Friday if that is a work day. We do not object them knowing about other holidays and traditions as long as they are not presented as facts. There are no religious customs that need to be known at this time. The gender of the therapist does not matter.
7. Reward/Discipline Information – A child should always follow through with a command from a caregiver. Rewards should be reserved for excellent work and be used sparingly. When the child misbehaves, they should not be ignored or placed in timeout. We want to understand why the child behaved that way and make sure they know why it is inappropriate. They may lose access to an item briefly. Physically restraining my child is unacceptable. If you gain my approval before implementing, I would consider it.

Appendix F

Culture Interview Checklist

Diet-based questions:

1. Does your child have any food restrictions related to religious or cultural practices in your family?
    a. If yes, what are they?
2. How do you feel about your child rejecting offers of food or drinks?
3. Are certain foods reserved or required for specific festivals or holidays?
4. Are there holidays or religious observances during which your child's food intake should be restricted?
    a. If so, when? What are they allowed to eat?
5. How do you feel about your child sharing food with others?
6. How do you feel about others sharing food with your child?
7. Are there specific utensils your child should use when eating food?

Communication-based questions:

1. What language(s) is spoken in your child's primary household?
2. Are there any other languages your child will hear frequently?

3. Do you have a need or preference for a provider who speaks the same language as your child, or service recipient, if one is available? If not, will an interpreter be needed?
4. Are there any gestures that are offensive to your family, such as certain finger, hand, arm, mouth, head, or eye movements?
5. In your culture, is it customary to use your right or left hand for specific purposes? Are there actions that should be avoided with a particular hand?
6. How do you want your child to greet family members upon seeing them after being apart for some amount of time?
7. How do you want your child to greet non-family members (family friends, peers, therapeutic staff) upon seeing them after being apart for some amount of time?
8. Are there customs that you observe when people depart your home?
9. Are there customs you observe when you depart from others outside of your home?
    a. Is there a specific way to say good-bye upon departure?

Reward/Discipline-based questions:

1. What percentage of the time is it acceptable for your child to follow your instructions?

2. How do you feel about giving rewards for good behavior or learning new skills?
    a. Food rewards, activities, praise, toys
3. What kind of behaviors do you think should be disciplined?
    a. Aggression, failing to comply with instructions, unusual body movements, inappropriate language?
4. How do you handle discipline in your family?
5. Does the gender of your child or therapist impact the discipline strategies that are used?
6. Can you make decisions about your child's discipline on you own or do you need to consult with other family members before making decisions?
7. Is there anything else you want us to know about your preferences about using rewards?
8. Is there anything else you want us to know about your preferences about using discipline?

Appendix G

Date: _____ Initials: _____

	JA Thesis Treatment Integrity	Yes/No
PRE-SESSION	1. Turn on GoPro Camera	Y N
	2. Hold Pre/Post-Experimental Assessment Checklist in front of camera. Say "Today is [date], this is phase [PRE/BL/TX/GEN], session [#], with [INITIALS]."	Y N
SESSION	3. Does the participants role play for 10 minutes or until the session ends? Whichever occurs first.	Y N
	4. Does "parent" only provide enough details to answer the question without adding any additional information?	Y N
	5. Has the clinician confirmed they looked at the demographic information sheet?	Y N
	6. Was the pre-interview statement delivered?	Y N
	7. Was the session held in a standard interview room?	Y N

Appendix H

Social Validity Questionnaire for Participants

You have recently completed an intervention to ask cultural questions that may influence care. Please evaluate the intervention procedures by answering the following questions. Check the box that best describes your agreement or disagreement with each statement.

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	Not Applicable
The topic of culture is relevant to clients with autism.					
The questions I asked are relevant to the clinical needs of a potential client.					
The checklist was useful in guiding me in asking questions related to culture.					
The checklist was well designed and easy to read.					
The intervention caused me stress or anxiety related to having to ask cultural questions.					
The intervention took an acceptable amount of time to complete.					

I felt comfortable during the sessions.					
This intervention will help me improve my ability to ask cultural questions.					
The number of questions I was required to ask was appropriate for the length of time given to conduct the interview.					
The checklist included sufficient information for me to ask the question.					
I feel more aware of how culture can influence care.					
I plan in incorporating questions about culture into my repertoire when appropriate in the future.					

Is there any other information you would like to provide?