Teaching Women with Developmental Disabilities to Respond Assertively to Inappropriate Sexual Solicitations

by

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Abstract

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The purpose of this study was to teach three women with developmental disabilities to respond assertively to inappropriate sexual solicitations and to examine generalization of responding. Two interventions were used: a video-review procedure and a video-review procedure with behavioral rehearsal. The interventions were introduced in a multiple-baseline experimental design across response scenarios: 1) verbal requests for the participant to take off her clothes or requests for permission for the male staff to take off his clothes, 2) verbal requests to look at or be in inappropriate movies or pictures, and 3) verbal requests to engage in subtle inappropriate physical interaction (i.e., giving back rub, sitting on lap). Responding was assessed using role-play and naturalistic probes. During the naturalistic probes, a confederate male staff member presented the inappropriate requests to the participants. During baseline, all participants demonstrated few assertive responses in all three response scenarios. For one participant, after the video-review was implemented, there was a systematic increase in the number of steps completed for an assertive response for all three response scenarios, in role-play probes. For the other two participants, responding systematically increased following the implementation of the video-review procedure with behavioral rehearsal, in role-play

probes. Naturalistic probe data demonstrate that all three participants learned to say, "no" and refrain from engaging in the inappropriate request from the confederate male staff member.

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Individuals with developmental disabilities are particularly vulnerable to sexual abuse (Watson, 1984). Research suggests that there are many contributing causes to this fact. Individuals with developmental disabilities may have skill deficits that prevent them from defending themselves and from seeking help (Sobsey, 1994). They often have poor social judgment and may not be able to recognize an inappropriate sexual situation (Watson, 1984). Additionally, many people with developmental disabilities have been taught to be compliant, especially toward caretakers and people in authority (Watson, 1984). They often have a long history of reinforcement for complaint behavior, which can generalize to situations that are inappropriate. Without the ability to discriminate when it is appropriate to comply with a demand and when it is not, individuals with developmental disabilities are at risk for abuse.

Although it has been difficult to document the exact prevalence of the sexual abuse of individuals with developmental disabilities, research suggests that it is a widespread problem. One study found that of 87 girls and women with mental retardation seen at a clinic, 25% had a history of sexual assault (Chamberlain, Ruah, Passer, McGrath, & Burkett, 1984, as cited in Sobsey, 1994). Another study found that out of a sample of 95 people with mental retardation the prevalence of sexual abuse was 83% for the women and 32% for the men (Hard, 1986, as cited in Sobsey, 1994).

No matter how difficult it is to pinpoint estimates of the prevalence of sexual abuse for individuals with developmental disabilities, it is clear that it is a problem that needs to be addressed.

Research in the area of teaching sexual abuse prevention skills has largely concentrated on teaching typically developing children to respond when presented with inappropriate sexual situations. There are very few investigations that examine methods to teach sexual abuse prevention skills to individuals with developmental disabilities (Carroll, Miltenberger & O'Neill, 1992). Additionally, because of the sensitivity of the subject matter, evaluation of the effectiveness of the various interventions has largely been documented by self-reports, or changes in the individuals' knowledge of sexual abuse measured before and after the treatment (Carroll, Miltenberger & O'Neill, 1992). Several questionnaires have been developed for these purposes (Conte, Rosen, Saperstein & Shermack, 1985; Hazzard, Webb, Kleemeier, Angert & Pohl, 1991; Saslawsky & Wurtele, 1986). Although the questionnaires have been a reliable measurement of the knowledge of sexual-abuse prevention skills, these methods do not measure the actual skill of responding to a sexual solicitation. It is very important to measure an actual response when evaluating an intervention, as research has demonstrated that there is little correspondence between knowledge and demonstration of a skill (Bakken, Miltenberger, & Schauss, 1993; Carroll, Miltenberger & O'Neill, 1992).

One way to measure an actual response is to set up situations in the natural environment and measure the response without the participant's knowledge that he/she is being tested. These probes are called naturalistic or "in situ" probes. Naturalistic probes have been used by investigators to measure abduction-prevention skills (Poche, Brouwer, & Swearingen, 1981; Poche, Yoder, & Miltenberger, 1988; Haseltine & Miltenberger, 1990) and more recently, sexual-abuse prevention skills (Lumley, Miltenberger, Long, Rapp, & Roberts, 1998; Miltenberger et al., 1999) and gun-safety skills (Himle,

Miltenberger, Flessner, & Gatheridge, 2004). When repeated presentations of naturalistic probes are not feasible or are not ethical, investigators have examined responding using multiple assessment probes, such as role-play probes, verbal report-probes, picture discrimination probes, knowledge questions, as well as naturalistic probes (Miltenberger & Thiesse-Duffy, 1988; Lumley et al, 1998; Miltenberger et al, 1999).

In a pioneering study in the area of sexual abuse prevention, Lumley et al. (1998) were the first investigators to use a multiple assessment technique to measure responding of 6 women diagnosed with mental retardation when presented with inappropriate sexual requests. Assessment measures included knowledge of sexual abuse prevention, verbal reports, role-play and naturalistic probes presented in a pre-test post-test format. The training consisted of a five-session curriculum aimed at teaching the women to say, "no," walk away, and report the incidents of sexual solicitations from a caretaker to a trusted adult. The three-part response was taught using behavioral skills training that included instruction and modeling of correct responses, rehearsal, praise, and feedback. Although training resulted in an increase in the knowledge and demonstration of sexual abuse prevention skills demonstrated by the increase in responding during role-play and verbal report probes, little generalization of the skill was demonstrated in the "in situ" probes. Additionally, maintenance of responding measured in a one-month follow-up probe was only observed in role-play sessions.

Lumley et al., (1998) suggest that although multiple exemplars of the target scenarios were presented to the participants, the lack of generalization from training may have occurred because the same therapists conducted the role-play sessions throughout the study. Appropriate responding to the relevant discriminative stimuli appears to have

been conditional upon the presence of the training therapists. Additionally, the trainer to whom the participant was supposed to report was also constant throughout this study. Again, stimulus control of reporting may have come under her control (Lumley et al., 1998).

In an effort to increase generalization of responding from the role-play to the naturalistic probes, Miltenberger et al. (1999) conducted a follow-up study in which they increased the behavioral skills training curriculum from 5 sessions to 10 sessions and used multiple trainers for the role-play perpetrator as well as for the role-play adult to whom the participant should report. Following training, a naturalistic probe assessment was conducted for each participant. If the participant did not meet criterion on that assessment, in situ training was conducted. This training consisted of presentations of an in situ probe, during which feedback and rehearsal was presented following an incorrect response. In situ training was continued until participants met criteria (scored of 4/4) for three consecutive in situ probes.

The results demonstrated that the changes made in the behavioral skills training curriculum were not sufficient to increase stimulus generalization measured in the in situ probes. Nevertheless, the results did demonstrate that the behavioral skills training curriculum plus in situ training was effective in increasing the generalization of sexual abuse prevention skills, measured in a one-month follow-up probe. The authors suggested that self-protection skills are not likely to occur in the naturalistic settings without in situ training (Miltenberger et al., 1999, p. 387). Additionally, the authors suggested that future research concentrate on evaluating methods to increase stimulus generalization.

Thus, in the area of teaching sexual-abuse-prevention skills, stimulus generalization is an issue that warrants further investigation. Although it has been demonstrated that in situ training following behavioral skills training was effective in increasing stimulus generalization, other interventions that are less labor intensive must be identified. In situ training requires that repeated naturalistic situations be set up without the participant's knowledge. This is a difficult task and one that may not be feasible for widespread use.

Holberton, Levin and Poulson (2000) conducted a study that was successful in promoting stimulus generalization of self-protection skills without the use of in situ training. They used a video-review procedure to teach three youths with autism to respond assertively to threatening social situations in mainstream settings. They presented video segments of threatening and non-threatening situations to each participant followed by an oral questionnaire that prompted the student to evaluate the situation and make a rule-based decision about how the person in the video should respond. There were 8-10 different exemplars used during training for each target threatening social situation. The format of the study was based on the research conducted by Lumley et al. (1998) and Miltenberger et al. (1999). The participants were taught to say "no," walk away and report the incidents of threatening social situations to an adult. Responding was assessed using role-play and naturalistic probes. The data demonstrated that the video-review procedure was an effective intervention to teach the 3-part response for all three participants demonstrated in role-play and in naturalistic probes. Additionally, follow-up data demonstrated that responding in role-play maintained after 6-12 months post treatment for all three participants. For the two participants who were

tested using naturalistic probes, responding was higher at 6-12 months post intervention, than baseline measures.

Holberton et al. (2000) suggested that one possible basic mechanism underlying the increase in appropriate responding during this study was the formation of stimulus classes that occasioned the three-step response. The formation of these stimulus classes was achieved by providing multiple exemplars of the stimuli in the form of the video-review to which correct responding was reinforced. To the extent that the stimuli in the video-review procedure were similar to those in the natural environment, generalization occurred in the naturalistic probes.

Holberton et al. (2000) demonstrated that the video-review procedure was an effective intervention to teach and promote generalization of an assertive response for three individuals with autism. Since this study obtained stimulus generalization by using a different intervention but similar design and dependent measure as the research conducted by Lumley et al. (1998), and Miltenberger et al. (1999), it is possible that the video-review procedure could be used to teach sexual abuse prevention skills to adults with developmental disabilities. Therefore, the purpose of the current study is to teach three women with developmental disabilities to respond assertively to inappropriate sexual solicitations using a video-review intervention and to examine stimulus generalization.

Method

Participants

The participants in this study were three women with mild-moderate mental retardation with a range in age from 38-42 years. The participants lived in three different supervised apartments located in three different towns. All of the supervised apartments were run by the same agency. All three participants worked in a grocery store during the day with supervision from a job coach. Their jobs were stocking and cleaning shelves, and washing pans in the bakery department.

The participants had scheduled recreational activities most evenings during the week and on the weekends. Each participated in the food shopping for the apartment, dinner preparation, and other household chores. As a result of the participants' busy schedules, they were available only 1-2 times per week.

The participants were verbal, held conversations, and read at a minimum of grade-school level. All three participants could watch a video segment and describe what happened on the video. Additionally, all three participants could imitate responses and pretend while doing practice role-plays.

The participants were their own legal guardians. Therefore, the participants themselves signed informed consent forms. The consent form was written with modified language so that the participants themselves could read it. When reviewing the consent form, each participant read the form over with the residential coordinator from the supervised apartment and the principal investigator present. The residential coordinator answered any questions or interpreted any language that the participants were unable to comprehend. The participants were required to answer 9 questions pertaining to all of the

elements of consent to make sure that they understood what they were reading and signing. Each question was an open-ended question that required the participant to answer by using full sentences (e.g., “What can you do if you decide that you do not want to participate in the assertiveness training?”). Signatures were required at the bottom of the question page of the consent form from both the participant and the residential coordinator. This study was approved by the Queens College IRB, the Human Rights Committee for the independent agency as well as the New Jersey Department of Human Services, Division of Developmental Disabilities.

Setting

All training sessions and assessment probes were conducted at the participants’ supervised apartment. Each apartment contained 2 floors with 3 residents on each floor. Each floor had its own kitchen, dining room, living room, bathroom, and a separate bedroom for each resident. One staff member working from the independent agency was on duty for each floor.

Training sessions and probes were conducted in the living room of two of the participants. The third participant received some training in the living room and some training in her bedroom. All assessment probes were conducted in the living room.

For the training sessions conducted in the living room, there was a couch, a love seat, a coffee table, an end table with a lamp and a television with a VCR present. For sessions conducted in the bedroom, there was a full bed, a dresser, and a television with a VCR present.

Materials

The materials used in this study were three different videotapes played on a VCR. The contents of the video taped segments are described in detail in the training section below.

Target Responses and Stimulus Classes

The participants were taught to respond assertively when presented with inappropriate verbal solicitations from a male staff member. The inappropriate verbal solicitations fell into three different classes of stimuli. The first stimulus class included requests to remove clothing. Inappropriate requests were defined as requests from a male staff to remove clothing exposing the trunk of the body for reasons other than medical or sanitary purposes and requests for the male staff to remove his pants or shorts exposing his undergarments or more. The second class of stimuli included requests to look at or be in inappropriate pictures or movies. Inappropriate movies/pictures were defined as movies or pictures that depicted one or more people wearing less than undergarments. The third class of stimuli included requests to engage in subtle inappropriate gestures, such as giving or receiving a back rub, sitting on a male staff member's lap, and reaching into a male staff member's pants pockets. Inappropriate physical contact was defined as any contact of the hands, mouth or genitals of staff with the trunk (area from 4 inches below bottom to 4 inches above breasts) and mouth of the participant except when close physical contact is necessary for medical or sanitary reasons. Table 1 provides a list of all of the different target scenarios from all three stimulus classes.

When presented with the inappropriate requests from all three stimulus classes, the participants were taught to emit the target behavior. The target behavior consisted of

three different responses: (1) verbally refuse the verbal request (e.g. “No, I am not going to do that.”); (2) walk at least 10 feet away from the situation, unless the adult to whom they were reporting was closer; and, (3) report the incident to a staff member or person of authority within 5 minutes.

Procedures

General.

Sessions were conducted 1-2 times per week for 13 months. For each session, the experimenter went to each of the participants' houses on a weekday in the early evening. Each session lasted between 30 and 90 minutes.

Assessment.

Role-play and naturalistic/test probes were used to assess the participant's response to the inappropriate verbal solicitations from a male staff member. No corrective feedback or reinforcement was provided for responses assessed during the role-play probes and during the naturalistic probes.

Role-play Probes. In role-play assessment one female researcher served as the confederate staff member. In all role-play sessions, the instructor started the session by talking about what role-playing is and what it means to act and pretend. A warm-up role-play scenario was presented, completely separate from any of the study subject matter (e.g. "Pretend I am your best friend at home." "Hi Jen, do you want to go to the movies with me this weekend?" "Sure, that would be fun."). Throughout the study, appropriate scenarios were presented randomly to the participant along with the inappropriate scenarios. An example of a role-play might be, "Pretend I am John and I am male staff. Who am I? Good, I am pretending to be John. Hi Jen, I am feeling very tired today, can you rub my shoulders for me?" If the participant said, "no," repeated attempts at the request were made. (e.g., "Are you sure, it will just take a second."). If the participant did not respond at all, the request was presented repeatedly until the participant made a

verbal response (either yes or no). This was to ensure that the participant was attending to the requests. Feedback was never provided.

Naturalistic Probes. A confederate staff member was trained for each of the target response scenarios. The confederate staff member was given instructions about what to say to the participants. In all cases, a real staff from the supervised apartment and/or the researcher stood at the door entrance or within earshot. The same requests were made as in the role-play, but the individuals were not told that they were being tested. In the event that the participant agreed to engage in the act, the trainer made an excuse and left the room, or the other staff member entered the room and interrupted any attempt at the inappropriate behavior. If the participant said, "no," the confederate male staff repeated the request (e.g., "Come on, it will just take a second."). If the participant did not respond at all, the request was represented until the participant provided a verbal response (yes or no). No inappropriate behavior was ever allowed to take place and no feedback was provided.

Training.

The teaching materials used during all training sessions included videotapes and a questionnaire. Six to eight different video segments were made portraying different situations for all three stimulus classes. In the videos, confederate staff and adults acted out different situations similar to the scenarios presented to the individuals during baseline and intervention assessment probes. For each stimulus class, some of the segments portrayed inappropriate requests in which the actor did not respond appropriately. Other segments portrayed situations in which the actor did respond appropriately (e.g. said "no", walked away, and reported to an adult). Additionally, some

segments were made portraying situations that were not inappropriate. Each video segment lasted less than one minute.

The verbal questionnaire was as follows: (1) Describe what happened in the video. (2) State whether it is a good situation or a bad situation. Why? (3) Describe what the women should always do in that situation.

Video-Review Sessions. Sessions consisted of a video review, in which the participant watched four to six different videos portraying the different scenarios used in all assessment conditions. For every session, the video segments were chosen randomly. During these sessions, one video segment was shown at a time. After the participant watched the segment, she was given a verbal questionnaire, which prompted her to "problem solve" the situation. For each question, verbal feedback was provided. For example, "You are right, he asked her to look at pictures of a naked girl, and that is not okay." Nevertheless, if the participant erred on the first question and incorrectly described what happened on the video segment, the participant was provided with verbal feedback and then shown the segment for a second time.

Video-Review with Behavioral Rehearsal. These sessions were performed in the same manner as the video-review training sessions, except that following the presentation of each video segment and the completion of the oral questionnaire, the participant was required to do a practice role-play of the situation viewed on the video (a behavioral rehearsal). The participant was told that the trainer was pretending to be a male staff member, and then the trainer presented the participant with a verbal request (either an appropriate or an inappropriate request). If the practice role-play was an inappropriate scenario, the participant was required to say, "no," walk away and report the incident to

staff. If the participant completed the correct responses, verbal praise was provided. If the participant did not complete the correct response, verbal feedback was provided and then the step on which the participant erred was repeated. If the practice role-play was an appropriate scenario, then the participant was required to provide a verbal response (either "yes" or "no") and was required to refrain from reporting the incident to staff. Verbal praise was provided to the participant following a correct response. If the participant erred on any of the steps, verbal feedback was provided and the step on which the participant erred was repeated.

Data Collection and Measurement

Assessment Probes. Data were collected on the number of steps completed for an assertive response (out of 3). Each session consisted of one presentation of a scenario (either role-play or naturalistic probe). Thus, the participant could score 0, 1, 2, or 3.

Training. Data were collected during the training sessions on the percent of responses to the video-review verbal questionnaire that were correct. As previously described, each questionnaire contained 3 questions, and at least four different video segments were shown to the participants for each training session. As a result, the percentage correct was calculated by the number of questions correctly answered divided by the number of questions (i.e. 12), multiplied by 100 %.

Data were scored also on the percentage of responses that were correct on the behavioral rehearsal. For each training session, 4 practice role-play trials were conducted. For an "inappropriate" role-play, the participant was required to act out the appropriate 3-part response (say, "no," walk away, and report the incident). Therefore, the trial was scored out of 3. For an "appropriate" role-play, the participant was expected

to provide a verbal response and to refrain from reporting the incident to staff. Therefore, the practice role-play for the appropriate scenarios was scored on the basis of 2 steps. The percentage correct was calculated by the number of steps completed that were scored as correct divided by the total number of steps, multiplied by 100 %.

Experimental Design

A multiple-baseline experimental design across response scenarios was used with each participant.

Baseline. Baseline was conducted for all assessment conditions across all three response scenarios. During baseline, the participants were presented with two role-play probes per week across all three stimulus classes. In these sessions, no corrective feedback or reinforcement was provided for any of the responses.

Intervention. When the intervention was introduced, the video-review procedure or the video-review procedure with behavioral rehearsal was conducted 1-2 times per week. Role-play and naturalistic probes continued as in baseline. Specifically, no feedback or reinforcement was provided contingent on the participant's response. Nevertheless, when the participants reported the incident to an adult, in all assessment scenarios, the adult always respond appropriately, e.g., "Thank you for telling me, he should never ask you to do that."

Interobserver Agreement

A second independent observer recorded data during 33% of the total number of sessions conducted for all three participants. Interobserver agreement was defined as the number of agreements divided by the number of agreements plus the number of disagreements multiplied by 100. The mean score of interobserver agreement was 98%

agreement for Tara's sessions (with a range of 83-100%), 99% agreement for Beth's sessions (with a range of 92-100%) and 99.5% agreement for Sally's sessions (with a range of 95-100%).

A second independent observer collected data on 25- 66% of all training sessions for all three participants. The mean score of interobserver agreement for all three participants was 99% agreement (with a range of 93-100%). A second independent observer scored data during the training sessions on the independent variable, the presence or absence of the training procedures. Specifically, the independent observer took data on whether or not the researcher conducting the training sessions followed the protocol outlined in the procedures section (e.g., presented the video-review or video-review with behavioral rehearsal, provided verbal praise contingent upon a correct response or provided verbal feedback contingent upon an incorrect response.) She scored the occurrence or non-occurrence of the components of the treatment procedure. The treatment integrity was 100%.

Results

Figures 1, 2, and 3 represent the number of steps completed for an assertive response for Tara, Beth and Sally for both role-play and naturalistic probes, across all three response scenarios.

Tara

Figure 1 shows that Tara's removal of clothing response during baseline was level at 1 step completed for an assertive response during role-play probes (closed circles). During naturalistic probes (open circles) the number of steps completed had a range of 0-1 steps. Responding during baseline for the inappropriate pictures/movies scenario varied between 0 and 1 step completed for an assertive response during role-play probes, with the exception of session 15, which was at 2 steps completed. Responding during naturalistic probes had a range of 0-1 step completed for an assertive response. For the inappropriate gestures scenario, responding for the role play probes during baseline varied between 0 and 1 step completed for an assertive response, with the exception of sessions 36 and 44 when responding was at 3 steps completed for an assertive response. Responding during the naturalistic probes was stable at 0 steps completed for an assertive response.

Following the implementation of the video-review training procedure, responding increased systematically during role-play probes across all three response scenarios. For the removal of clothing scenario, there was initial response variability, followed by stable responding at 3 steps completed for an assertive response. For both the inappropriate pictures/movies scenario and the inappropriate gestures scenario, following the implementation of intervention, there was an immediate and sustained increase in

responding to 3 steps completed for an assertive response. Following the implementation of the intervention, responding during the naturalistic probes was stable at 1 step completed for an assertive response across all three response scenarios.

Beth

Figure 2 demonstrates that for Beth responding during baseline for the Removal of Clothing scenario was level at 1 step completed for and assertive response assessed in role-play probes. For the Inappropriate Pictures/Movies scenario, responding during baseline varied between 0-1 step completed, with the exception of session 30 when responding was at 3 steps completed for an assertive response. For the Inappropriate Gestures scenario, responding during baseline varied between 0-1 step completed, with the exception of sessions 41 and 46 during which responding was at 3 steps completed for an assertive response. Responding assessed using naturalistic probes during baseline was at 0 steps completed for an assertive response across all three response scenarios, with the exception of sessions 15 and 33 during which responding was at 1 step completed for an assertive response.

Following the implementation of the video review procedure for the Removal of Clothing scenario, responding during role-play assessment remained at a mean level of one step completed for an assertive response for 7 sessions. Responding assessed during the naturalistic probe was at one step completed. Because responding assessed in the removal of clothing scenario did not change with the implementation of the video review procedure, an additional component consisting of behavioral rehearsal was added to the treatment. With the implementation of the video review procedure with behavioral rehearsal, there was a systematic change in behavior across all three response scenarios

assessed during role-play probes. For the Removal of Clothing scenario, following the implementation of the video review procedure with behavioral rehearsal, there was immediate response variability during which responding varied between 1 and 3 steps completed for an assertive response, with an overall increase in the level of responding. Following session 48 for the Removal of Clothing scenario, responding was level at 3 steps completed for an assertive response.

Following the implementation of the video review procedure with behavioral rehearsal for the Inappropriate Pictures/Movies Scenario, there was an immediate increase in the number of steps completed for an assertive response assessed during role-play probes. Initially there was some response variability, nevertheless after 6 sessions, responding remained level at 3 steps completed for an assertive response. Following the implementation of the video review with behavioral rehearsal for the Inappropriate Gestures scenario, there was an immediate and sustained increase to 3 steps completed for an assertive response measured in role-play probes. For responses assessed during naturalistic probes, following the implementation of the video review procedure with behavioral rehearsal, there was in increase in the level of responding to 1 step completed for an assertive response across all three response scenarios.

Sally

Figure 3 represents the data for Sally. During baseline, responding was a 0 steps completed for an assertive response measured in role play and naturalistic probes across all three response scenarios with the exception of session 46, when responding was at 1 step completed for an assertive response for the Inappropriate Pictures/Movies scenario. Following the implementation of the video review procedure with behavioral rehearsal

for the removal of clothing scenario, responding remained at 0 for the first 8 role-play probes. Nevertheless, after session 33 there was some response variability during which responding had a range of 0-3 steps completed for an assertive response. With continued exposure to the intervention, responding increased at session 46 to 3 steps completed for an assertive response measured during role play probes and remained stable for the remainder of the sessions.

Following intervention for the Inappropriate Pictures/Movies Scenarios and the Inappropriate Gestures Scenarios, there was an immediate and sustained increase to 3 steps completed for an assertive response assessed during role-play probes. Responding assessed in naturalistic probes increased across all 3 response scenarios following the implementation of intervention. For the removal of Clothing scenario, responding during naturalistic probes was initially at 0 steps completed and increased to one step completed for an assertive response. Responding during the naturalistic probes for the inappropriate pictures/movies scenario started at 1 step completed for an assertive response and increased to 2 steps completed for an assertive response. Responding assessed in naturalistic probes in the inappropriate gestures scenario was at 1 step completed for an assertive response following intervention.

Correct Responses During Training

Figures 4, 5, and 6 represent the percent of responses scored as correct on the video-review training or the video-review with behavioral rehearsal for Tara, Beth and Sally. The data demonstrate that for all three participants, the percent of the responses scored as correct increased across sessions.

Discussion

The results of this study demonstrate that the video-review procedure was an effective procedure to teach one participant, Tara, to respond assertively to 3 stimulus classes of inappropriate requests from a male staff member as measured in role-play probes. With the implementation of the intervention, Tara learned to say, "no," walk away, and report the inappropriate requests during role-play probes. Tara learned to say, "no," and not engage in the inappropriate act as requested by a confederate male staff member during naturalistic probes more consistently when compared to baseline levels. She did not, however, learn to walk away and report the incidents when tested during the naturalistic probes.

For Beth, the video-review procedure alone was not effective in teaching the assertive response. Nevertheless, the video-review procedure with behavioral rehearsal was effective in teaching Beth to respond assertively to the three stimulus classes of inappropriate requests from a male staff member as measured by the role-play probes. The naturalistic probe data demonstrate that Beth learned to say, "no," and refrain from engaging in the inappropriate request, more consistently when compared to baseline levels. Nevertheless, the naturalistic probe data also indicate that she did not learn to walk away and report the incidents to the female staff on duty.

For Sally, the video review procedure with behavioral rehearsal was an effective intervention to teach the three-part response when presented with inappropriate requests from a male staff member as measured in role-play probes. The naturalistic probe data indicate that she learned one out of the three steps that make up an assertive response for all three stimulus classes, with the exception of one data point in which she demonstrated

2 out of the three steps completed for an assertive response in the inappropriate pictures/movies stimulus class. In all of the naturalistic probe sessions, Sally said, “no” to the inappropriate requests and refrained from engaging in the inappropriate response.

Delayed acquisition of Sally’s response for the Removal of clothing stimulus class may have resulted from the fact that she was in baseline for 23 sessions before intervention was implemented. At the start of this study, a multiple baseline experimental design across subjects and within subjects across responses was being used. As a result, Sally was the participant in the final leg of the multiple baseline design. During baseline, Sally was presented with inappropriate requests during role-play probes and no feedback was provided for incorrect responding. Consequently, Sally was in effect repeatedly agreeing to pretend to engage in inappropriate requests, without ever being told that her response was incorrect. It is possible that Sally had a long history of reinforcement for compliance and following instructions from “teachers,” consequently Sally’s inappropriate response may have been inadvertently strengthened during baseline when the “staff member” did not correct her behavior, thereby implicitly approving of her behavior during that long baseline. Such implicit consequences over a long period of time could have made her more resistant to the treatment procedure, resulting in a longer skill acquisition period.

The results from the study confirm the work conducted by Lumley et al., (1998) and Miltenberger et al., (1999) by demonstrating that it is difficult to teach and obtain generalization of sexual abuse prevention skills to adults with developmental disabilities without the use of in situ or naturalistic training. Lumley and her colleagues demonstrated that a five session curriculum of behavioral skills training was sufficient

only to teach knowledge and demonstration of sexual abuse prevention skills in women with Mental Retardation measured in knowledge questions, verbal report, and role-play probes. The intervention was not effective in teaching the assertive response measured during naturalistic probes. Similarly, in a follow up study, Miltenberger et al. (1999) extended the training curriculum, including the number of staff used and demonstrated, again, that the curriculum was not effective in teaching an assertive response measured in naturalistic probes. Nevertheless, when the behavioral skills training curriculum was followed by in situ training, the participants did learn the assertive response measured in the naturalistic probes. The authors suggest that self-protection skills are not likely to occur in the naturalistic settings without in situ training (Miltenberger et al., 1999, p. 387).

One study that was successful in teaching self-protection skills to individuals with autism that did occur in naturalistic settings without the use of in situ training was conducted by Holberton et al., (2000). These authors used a video-review procedure that was the same intervention as used in this study for Tara and for the other two participants as one component in the treatment package of the video review procedure with behavioral rehearsal. Nevertheless, the results from the present study are not consistent with the results obtained from the study that this research was attempting to extend. The participants in the present study demonstrated only stimulus generalization of one of the three steps that make up an assertive response measured during the naturalistic probes. There are several differences between the present study and the previous study conducted by Holberton et al., that may account for the disparity in the results obtained. The first difference was in the training. In the previous study, training sessions were conducted as

part of the student's regular class schedule so that training was conducted in a school environment and sessions were conducted 3 times a week. In the present study, sessions were conducted only 1-2 days a week with most weeks having only 1 session. The training sessions were conducted in the participant's group home as an "extra" service.

The second difference between the previous study and the present study is the number of staff involved. In the previous study, a teacher or an aid was always present during training sessions in addition to the experimenter so that she was incorporated as part of the relevant stimuli present throughout training. This may have facilitated the generalization of reporting. In the current study, the only person present in the immediate vicinity was the trainer. When the participant needed to report an incident or practice during the behavioral rehearsal, she had to look for the staff on duty to whom she should report. Usually the staff was involved with making dinner or involved with other consumers living in the residence. For Beth and Sally, the response effort of finding a staff on duty was often observed to be great because staff were located on a different floor in the building, thus requiring the participants to go up and down the stairs to report. Additionally, the participants appeared to view the assertiveness training as something that they did with the principal investigator only, separate from the activities of the residence. On several occasions, all three participants made comments to the principal investigator to the effect that they felt as if they were bothering the staff on duty when they went to report during training.

A final difference between the previous study and the present study is the population of the participants and the classes of stimuli that should occasion the three part response. In the previous study, the participants were boys with autism who had a range

in age from 12-15 years. They were taught to emit the 3-part response when presented with inappropriate directions from peers, when presented with unkind words from peers, and when asked to go somewhere with a stranger. In the current study, all three participants were women with developmental disabilities who resided in a supervised apartment with a range in age from 38-42 years. All of the stimulus classes that should occasion the three part response included a direction from a male staff member. Perhaps these differences affected the results obtained. In the previous study the participants were younger and probably had a shorter learning history compared to the adult women in the current study. According to the staff who work at the agency where the women reside, the women have a long history of reinforcement for compliance and following instructions from staff members, compared to the youths with autism and their history of complying with requests from peers and strangers.

Although the women in this study only learned 1 of the three responses that comprise an assertive response, as measured in the naturalistic probes, one could argue that they learned the most important response, saying, “no” and refusing to engage in the inappropriate response. This was a big change when compared to responding during baseline, when the participants often agreed to engage in the inappropriate response as demonstrated by the data points at 0 steps completed for an assertive response. Because the participants were required to make a verbal response when presented with the probes, any data point at zero meant that the participant agreed to engage in the inappropriate response. Following intervention, there were not any naturalistic data points at zero steps completed for an assertive response. In all cases the women said, “no,” using the

language that they were taught in the videos (e.g., “No, I am not comfortable doing that.”) and refrained in engaging in the inappropriate response. `

There are several limitations of this study. The first limitation of this study is that the baseline sessions were not consistent across all three participants. Because Beth did not learn the assertive response when presented with the video-review procedure alone, that phase served as a baseline measure for the video-review procedure with behavioral rehearsal. This was not consistent with the phases of the other two participants.

The second limitation of this study is that although the participants were presented with appropriate role-play and naturalistic probes along with the inappropriate requests, we did not take data on the participants’ responses. As a result, we are not able to clearly demonstrate that the participants learned to discriminate between appropriate and inappropriate requests from a male staff member, as measured in the role-play and naturalistic probes. Nevertheless, because the training sessions did include appropriate scenarios combined with the inappropriate scenarios, the participants’ skill acquisition data thus demonstrates that the participants did learn the discrimination measured in the context of training.

As mentioned earlier, at the start of this study we were using a multiple baseline experimental design across subjects and within subjects across responses. As a result, baseline phases for both Beth and Sally were extended. Additionally, we did not implement treatment for Tara for the Inappropriate Requests scenario as quickly as we could have because Beth’s data for the Removal of Clothing Scenario were not increasing with treatment and we did not want to change two variables at one time. These extensive periods of baseline are an additional limitation of this study.

Another limitation of this study is the length of time it took to complete, the number of training sessions and the low number of trainers involved. Because of the participants' busy schedules, sessions were conducted one time per week, with an occasional week when they were available for two sessions. Thus, training sessions were often spaced out by 7 days, resulting in delayed skill acquisition. Additionally, because the training sessions and the role-play probes were conducted by the principal investigator only, stimulus control of walking away and reporting inappropriate requests may have become specific to her. For Beth and Sally, correct responding during the behavioral rehearsal was always reinforced with verbal praise from the principal investigator. Because the principal investigator was always present and correct responding was reinforced in her presence, stimulus control of responding may have come under her control.

Future research should be conducted to address the procedural limitations of this study. Specifically, researchers may want to examine if the video-review or the video-review procedure with behavioral rehearsal is effective to teach all three components of an assertive response measure in naturalistic probes when there is an increase in the number of training sessions and an increase in the number of staff used during training and role-play sessions. Because teaching sexual abuse prevention skills involves teaching a discrimination and teaching a response to emit when presented with inappropriate requests, future researchers may want to investigate methods to teach the two components of the skill separately. Additional research should also be conducted to examine other interventions that teach and promote generalization of sexual abuse

prevention skills for adults with developmental disabilities without the use of in situ or naturalistic training.

Table. 1

Stimulus Class	Training Videos Inappropriate and Appropriate Situations	Role-play Probes and Naturalistic Probes
Look at or Be in inappropriate pictures and movies		
1.	A male staff member asks a female resident to look at inappropriate pictures on the internet, the female resident does not respond appropriately.	Requests to look at inappropriate pictures on the internet because: they are educational, funny, see what boyfriend looks like, favor for staff.
2.	A male staff member asks a female resident to look at inappropriate pictures on the internet, the female resident does respond appropriately.	Requests to look at inappropriate magazines because: it is funny, beautiful, educational, see what boyfriend looks like, favor for staff.
3.	A male staff member asks a female resident if she wants to play games on the internet, the female resident agrees.	Requests to be in inappropriate pictures because: could be famous, favor for staff, present for boyfriend.
4.	A male staff member asks the female resident to look at inappropriate pictures in a magazine, the female resident does not respond appropriately.	Requests to look at inappropriate movies on tv because: they are educational, funny.
5.	A male staff member asks the female resident to look at inappropriate pictures in a magazine, the female resident does respond appropriately	
6.	A male staff member asks the female resident if she wants to read an appropriate magazine with him, the female resident agrees.	
Requests to remove clothing		
1.	A male staff member tells a female resident that he wants to buy underwear for his girlfriend and needs to look at her underwear while she is wearing it, so that he can figure out the right size. The female resident responds appropriately.	Requests to look at the female resident's underwear/bra while she is wearing it because: need to check size to buy for girlfriend/wife for birthday/anniversary.
2.	A male staff member asks a female resident to take off her shirt, since it is	Requests for the female staff to remove clothing because she has a

	hot and the air conditioner is broken. The female resident responds appropriately.	stain, it is hot, needs to get ready for bed, get ready for work, because it is the male staff member's job to watch.
3.	A male staff member tells the female resident to take off her shirt since there is a stain so that he can put it in the wash. The female resident does <u>not</u> respond appropriately.	Male staff asks the female resident if he can take off his pants, shorts in front of her because: he has a juice stain, ink stain.
4.	A male staff member tells the female resident to take off her shirt since there is a stain so that he can put it in the wash. The female resident does respond appropriately.	
5.	A male staff member asks the female resident if he can take his pants off in front of her because he just spilled on his pants. The female resident does not respond appropriately.	
6.	A male staff member asks the female resident to take off her clothes while she is sunbathing, even though she is not wearing a bathing suit. The female resident does <u>not</u> respond appropriately.	
7.	A male staff member asks the female resident to take off her clothes while she is sunbathing, even though she is not wearing a bathing suit. The female resident does respond appropriately.	
8.	A male staff member asks the female resident to take off her clothes while she is sunbathing, because she is wearing a bathing suit under her clothes. The female resident agrees.	
Requests to engage in inappropriate physical gestures (i.e. kissing sitting, on lap, back rub)		
1.	A male staff asks a female resident to reach into his front pants pocket to get his keys because his hands are full. The female resident does <u>not</u> respond appropriately.	Requests for the female resident to reach in the front pocket of the male staff to get keys or money because: his hands are full, wet, needs a favor.
2.	A male staff asks a female resident to reach into his front pants pocket to get his keys because his hands are full. The female resident does respond appropriately.	The male staff asks the female resident if she wants a back massage because: she had a long day, looks tired, it feels good, because she is a friend.

3.	A male staff asks a female resident to reach into his front pants pocket to get his money because his hands are wet. The female resident does not respond appropriately.	Requests for the female resident to give the male staff a back rub because: he is tired, got hurt, needs a favor.
4.	A male staff member asks a female resident if she wants a back rub, because she looks like she has had a long day. The female resident does not respond appropriately.	Requests for the female resident to sit on the lap of the male staff because: all the chairs are taken, it is cold, they are friends.
5.	A male staff member asks a female resident if she wants a back rub, because she looks like she has had a long day. The female resident does respond appropriately.	Requests for the female resident to kiss the male staff because: they are friends, he cares about her.
6.	A male staff member ask a female resident if she wants to have a cup of tea with him, because she looks like she has had a long day. The female resident agrees.	
7.	A male staff member asks a female resident if she wants to sit on his lap to watch tv. The female resident does not respond appropriately.	

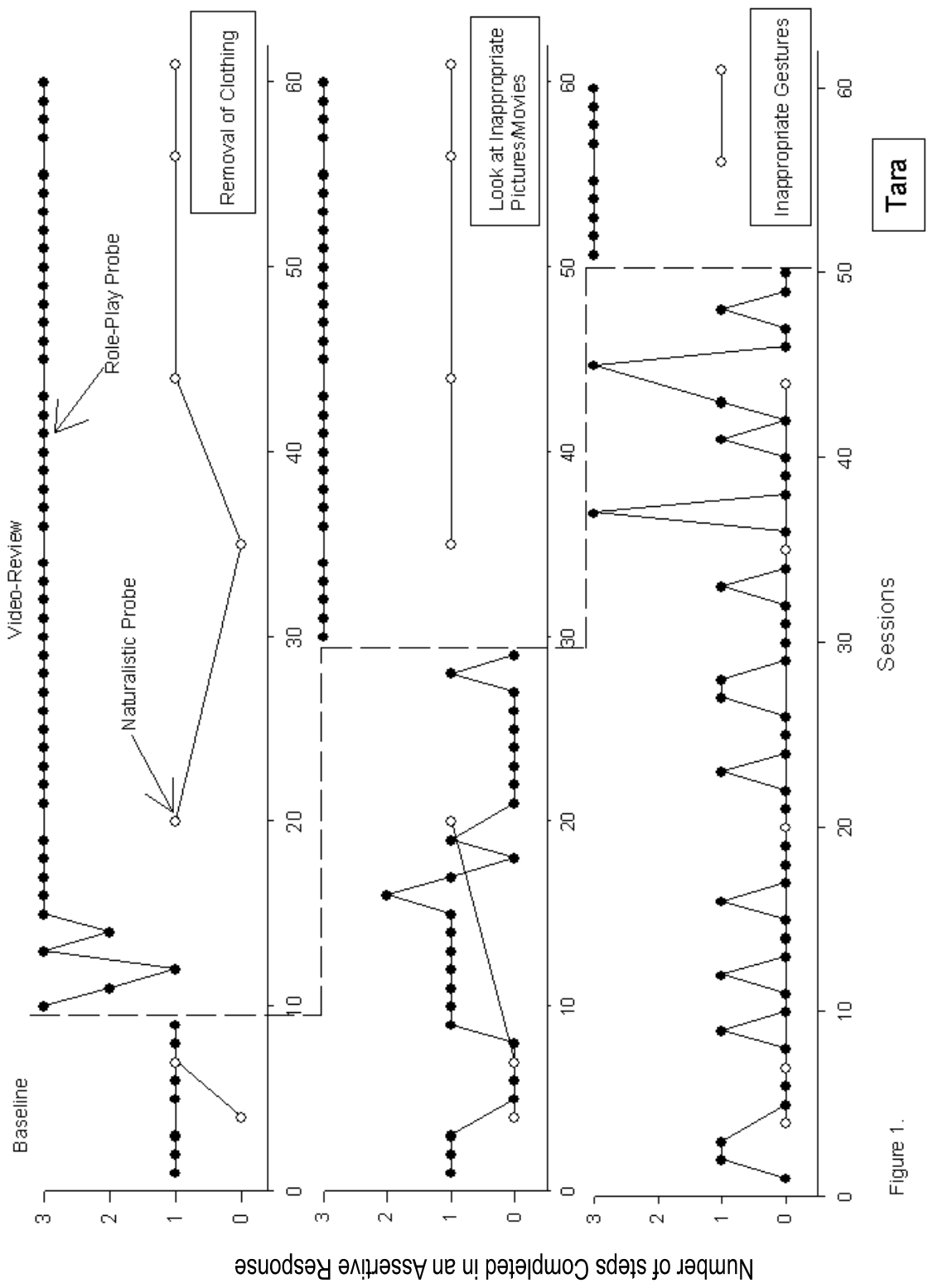
Baseline
Video-Review
Role-Play Probe
Naturalistic Probe
Removal of Clothing
Look at Inappropriate Pictures/Movies
Inappropriate Gestures
Tara
Number of steps Completed in an Assertive Response
Sessions
0
10
20
30
40
50
60
1
2
3

Figure 1.

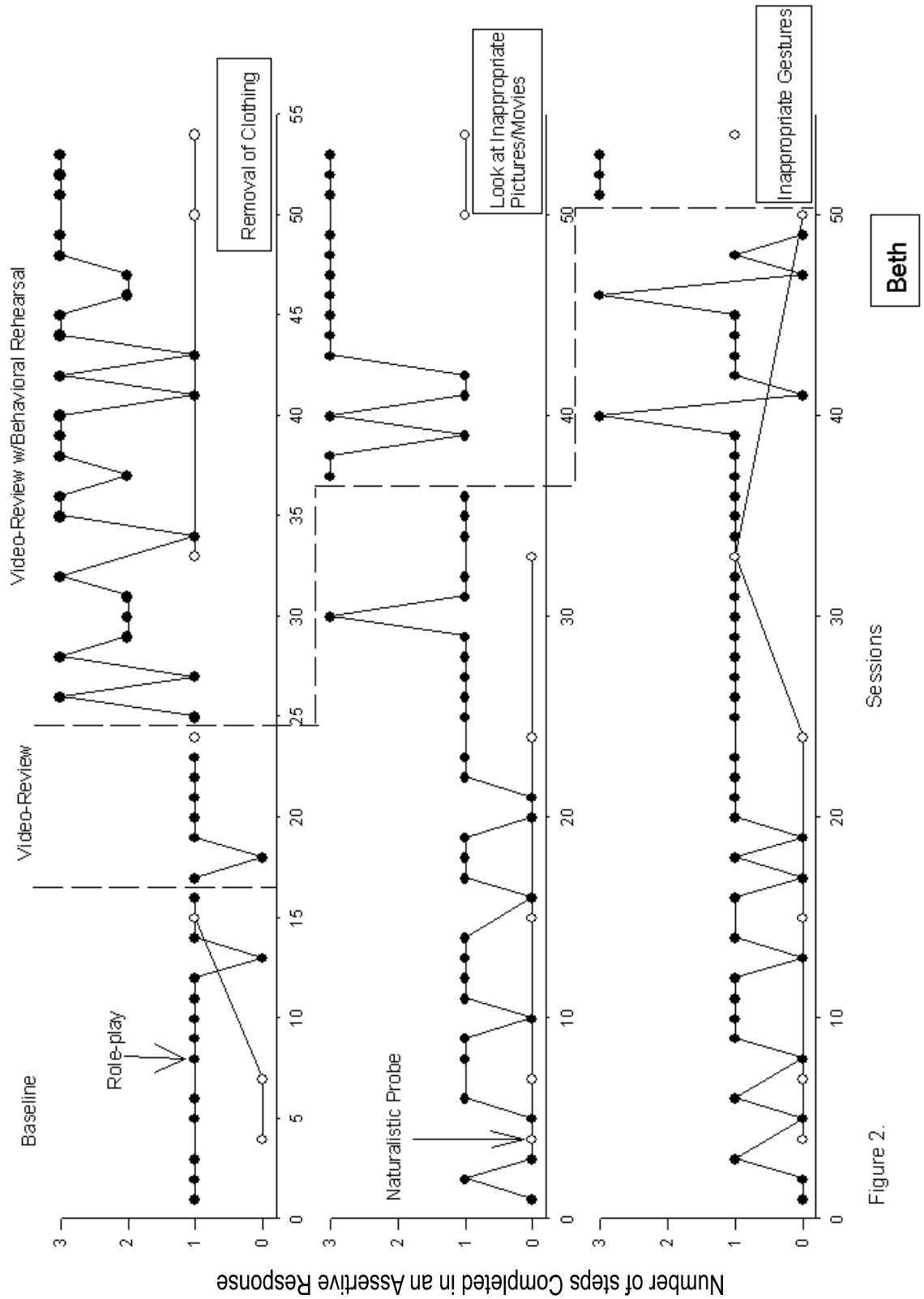
Baseline
Video-Review
Video-Review w/Behavioral Rehearsal
Role-play
Removal of Clothing
Naturalistic Probe
Look at Inappropriate Pictures/Movies
Inappropriate Gestures
Beth
Number of steps Completed in an Assertive Response
Sessions

Figure 2.

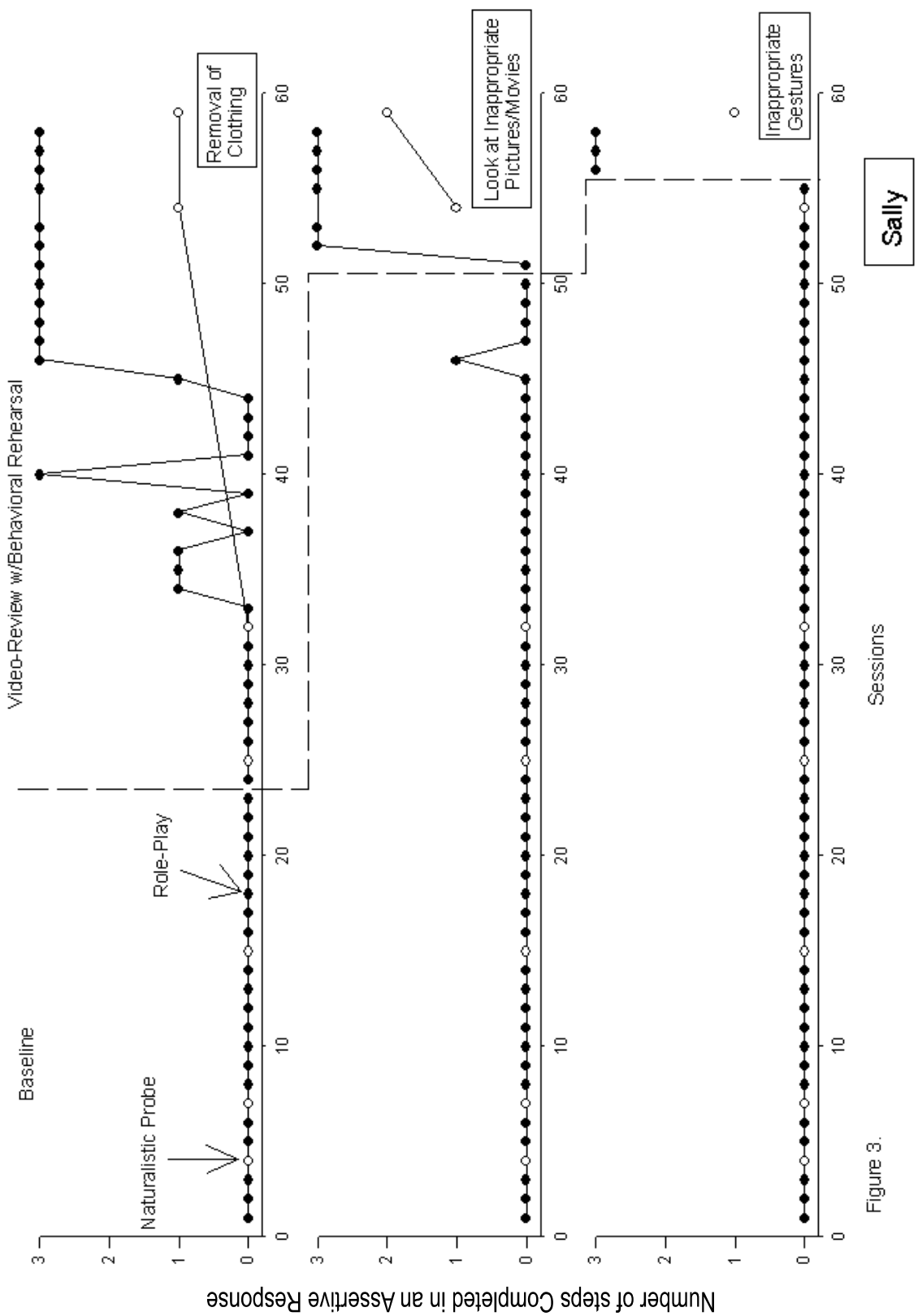
Baseline
Naturalistic Probe
Role-Play
Video-Review w/Behavioral Rehearsal
Removal of Clothing
Look at Inappropriate Pictures/Movies
Inappropriate Gestures
Sally
Number of steps Completed in an Assertive Response
Sessions
0
1
2
3
10
20
30
40
50
60

Figure 3.

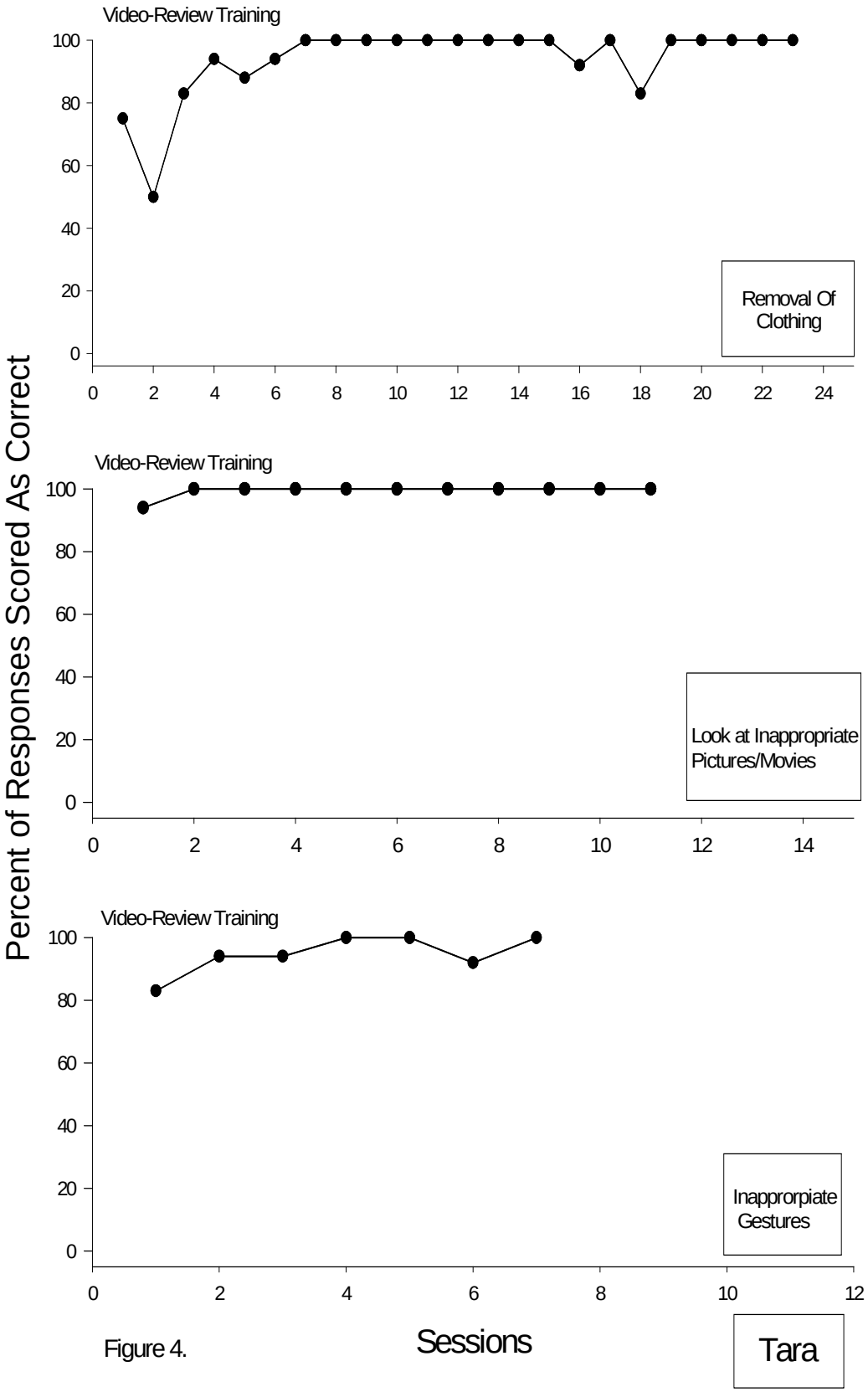
Video-Review Training
Removal Of Clothing
Video-Review Training
Look at Inappropriate Pictures/Movies
Video-Review Training
Inapprorpiate Gestures
Percent of Responses Scored As Correct
Sessions
Tara

Figure 4.

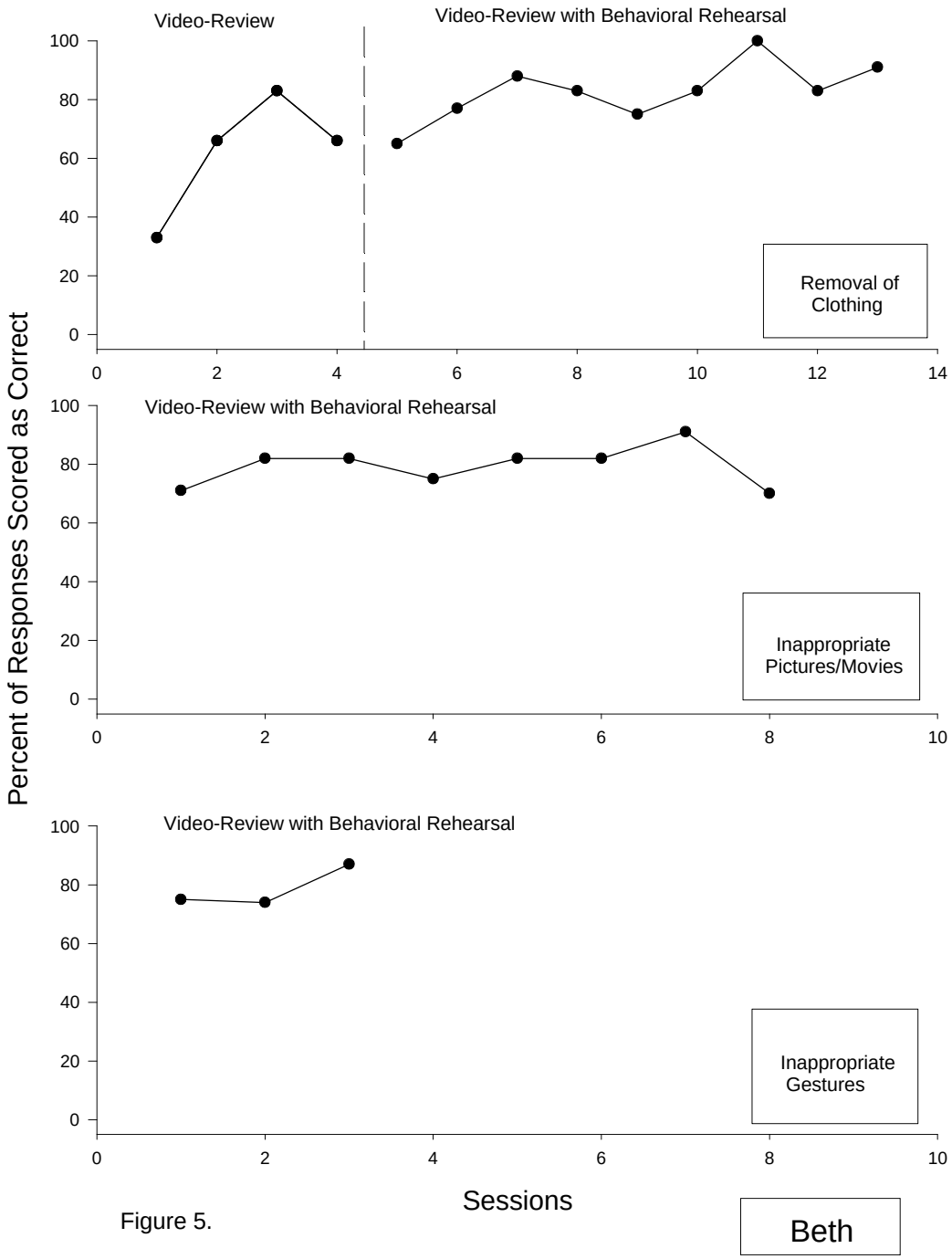
Video-Review
Video-Review with Behavioral Rehearsal
Removal of Clothing
Video-Review with Behavioral Rehearsal
Inappropriate Pictures/Movies
Video-Review with Behavioral Rehearsal
Inappropriate Gestures
Percent of Responses Scored as Correct
Sessions
Beth

Figure 5.

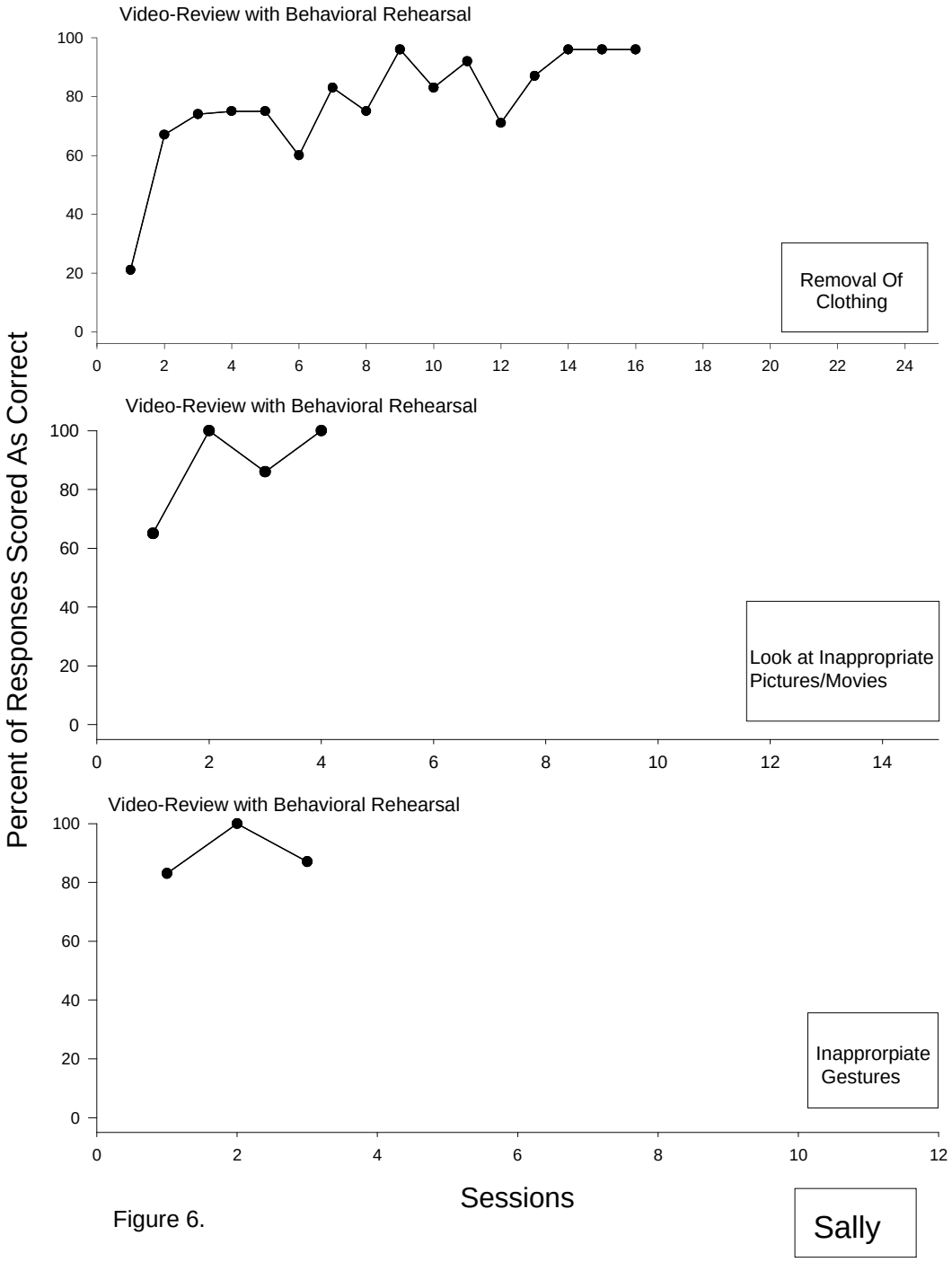
Video-Review with Behavioral Rehearsal
Removal Of Clothing
Video-Review with Behavioral Rehearsal
Look at Inappropriate Pictures/Movies
Video-Review with Behavioral Rehearsal
Inapprorpiate Gestures
Percent of Responses Scored As Correct
Sessions
Sally

Figure 6.

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