

Familiarizing New Staff for Working with Adults with Severe Disabilities: a Case for Relationship Building

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Abstract In human service agencies, situations exist at various times in which consumers are not familiar with the staff who work with them. We evaluated effects of familiar versus unfamiliar staff working with two men with severe disabilities in a vocational program. Results indicated both participants displayed more compliance with familiar staff relative to unfamiliar staff and one exhibited more on-task (one was near ceiling levels with both staff). Subsequently, a familiarization process was conducted with four new staff before working with four men with severe disabilities that involved spending time with a participant in a preferred activity and phasing in to the participant's routine. Each staff worked with one participant after being familiarized and concurrently with another without being familiarized. In all but one case, participant compliance was greater with the familiarized staff. Except when on-task was near ceiling levels, it also was higher with the familiarized staff. Additionally, results offered some support for the existence of a good relationship between familiarized staff and participants in terms of more participant happiness indices than with unfamiliar staff and, to a smaller degree, less unhappiness indices and problem behavior. Implications for practitioners are discussed, including being aware of potential problems when unfamiliar staff work with adults with severe disabilities and considering familiarizing new staff prior to working with individuals. Discussion also addresses how more attention could be directed to relationship development from a practitioner and research perspective.

Keywords Adults with severe disabilities · Unfamiliar staff · Relationship building

A common occurrence in many agencies providing services for adults with severe disabilities is changes among agency staff who work with individual consumers. Staff changes occur, for example, due to turnover that results in a new staff person assuming the responsibilities of a staff member who has left the agency (Strouse, Carroll-Hernandez, Sherman, & Sheldon, 2003). Changes among staff also occur when a staff person is temporarily absent from work and another staff member from a different part of the agency is re-assigned or "pulled" to work with the consumer caseload of the absent staff person (Magito-McLaughlin, Spinosa, & Marsalis, 2002). One outcome of these and other staff changes is that a staff person who is familiar with an adult who has a severe disability, and vice versa, is replaced by a staff member who is unfamiliar.

The behavior of people with severe disabilities can change significantly when different staff work with them. For example, individuals have responded differently when varying staff conduct systematic preference assessments (Jerome & Sturmey, 2008) and functional analyses (Schlichenmeyer, Roscoe, Rooker, Wheeler, & Dube, 2013). Increases in challenging behavior have also been observed when one versus another staff person works with an individual (Thiele, Blew, & Luiselli, 2001; Touchette, MacDonald, & Langer, 1985). Although there are varying reasons why changes in staff affect the behavior of people with severe disabilities (O'Reilly, Cannella, Sigafos, & Lancioni, 2006; Schlichenmeyer et al., 2013), one reason may be particularly relevant with regard to the situations noted above involving familiar versus unfamiliar staff. Specifically, the unfamiliar staff person may be nonpreferred by an individual relative to the familiar staff

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member (Jerome & Sturmey, 2008). The relative displeasure associated with the unfamiliar staff person may be a direct result of the individual's lack of familiarity with the staff member, and especially for some adults with severe disabilities such as autism who tend to prefer sameness in their environment and may respond to changes with challenging behavior (Kodak & Grow, 2011). Relatedly, the nonpreferred status of the unfamiliar staff person also may be due to the lack of a good relationship having been established between the individual and the staff member (McLaughlin & Carr, 2005). Acquiring familiarity is generally considered a pre-requisite for the development of a good relationship (Reid, 2016, Chapter 5).

The importance of relationships between agency staff and consumers of agency services has been well noted in the developmental disabilities field (Karaaslan & Mahoney, 2013; Magito-McLaughlin et al., 2002). Relationships have also received attention in behavior analysis from several perspectives (Carr, McLaughlin, Giacobbe-Grieco, & Smith, 2003; McClannahan & Krantz, 1993; Taylor & Fisher, 2010). For example, good relationships have been described in terms of individuals with severe disabilities and highly significant communication challenges exhibiting indicators of happiness in the presence of certain staff, such as approaching the staff person or smiling (McLaughlin & Carr, 2005; Thiele et al., 2001). Such behavior may suggest a history of reinforcement associated with past interactions with the staff. In contrast, the lack of a good relationship has been described in terms of individuals not displaying such indicators (Jerome & Sturmey, 2008; Thiele et al., 2001) or exhibiting unhappiness indices suggestive of a bad relationship, such as withdrawing from respective staff (Reid, 2016, Chapter 5). The type of relationship that exists as indicated by the individual's behavior when a particular staff person works with him/her also has been considered as a potential setting event for the individual's subsequent behavior (Carr et al., 2003). Carr et al. describe, for example, that the presence of a nonpreferred staff person may represent an establishing operation that alters the reinforcing or aversive properties of the respective staff person's attention when presenting instructional demands and responding to the consumer's subsequent behavior. McLaughlin and Carr (2005) also demonstrated that the presence of a bad relationship or otherwise nonpreferred staff functioned as a setting event for challenging behavior of individuals with severe disabilities when the staff presented instructional demands to the individuals.

In light of the situations involving unfamiliar staff who presumably have not developed good relationships with certain individuals with whom they work and reports of problematic behavior associated with nonpreferred staff, additional research in this area seems warranted. In this regard, there have been specific calls to more closely examine the effects of unfamiliar staff working with people with severe

disabilities (e.g., Jerome & Sturmey, 2008). There have also been calls for additional research to develop ways to reduce the negative effects of nonpreferred staff working with this population (Jerome & Sturmey, 2008; McLaughlin & Carr, 2005).

In light of the calls for additional research, the purpose of this investigation was twofold. One purpose was to evaluate the effects of familiar versus unfamiliar staff working with adults who have severe disabilities. A second purpose was to evaluate a means of familiarizing new staff with individuals with whom they would be working to reduce potentially negative effects associated with unfamiliar staff. Both purposes were addressed in an attempt to provide suggestions for behavior analysts working in adult service agencies who may encounter problems among certain individuals when new staff begin working with the individuals.

General Procedures

Setting and Participants

The study involved two phases. Both phases were conducted in a center-based, day treatment program for adults with severe disabilities. The day treatment program provided a variety of services including skill teaching, supported work, and leisure activities. The investigation was conducted while the consumer participants were performing paid work in the day program. In Phase I, the two participants worked in a kitchen with two or three other supported workers (who were not a part of the investigation) and usually two program staff. The two participants performed a variety of work tasks including setting tables for lunch, operating a dishwasher, and folding linen. Each participant had been working on these tasks for more than 1 year prior to the investigation and had demonstrated the skills to perform each work task with staff supervision. Typically, they required an initial instruction from staff to begin a task, which they then usually performed mostly independently with a few prompts and praise statements from the staff. In Phase II of the investigation, the same two participants continued working in the same situation as Phase I. Two other participants in Phase II worked on clerical tasks associated with a contract from a publishing company that involved preparing advertising fliers for mailing such as putting address labels and stamps on the fliers. These were new job tasks with which the two participants were not familiar.

The four participants were men between the ages of 50 and 58 years who had severe intellectual disabilities. Each participant displayed features characteristic of autism on the severe end of the spectrum of autism disorders (Powers, 2000). Previous psychological evaluations conducted independently of the investigation reported three of the participants to have a diagnosis of autism. The fourth, Mr. Bettis, was reported to

have features of autism, but there was no official diagnosis in his historical records. Each participant displayed stereotypic behavior (e.g., repetitive nonword vocalizations, rocking, finger tapping, pacing, body spinning) and an apparent preference for sameness with actions (e.g., always entering a room through the same door) and activity schedules. They communicated by pointing, idiosyncratic gestures, and a few manual signs (except for Mr. Lutz), although Mr. Fox and Mr. Bettis occasionally spoke in short utterances. Receptively, they typically responded to familiar requests from staff that were spoken and/or signed. Each participant performed basic self-help skills independently (e.g., toileting, eating) with staff supervision. All participants had a history of problem behavior including aggression (hitting, biting, or spitting at staff) and minor self-injury (e.g., hand biting) for which planned treatment procedures were in place. However, these behaviors were very infrequent at the time of the investigation and did not occur during pre-baseline observations. These individuals were selected for the investigation because they were adults with severe disabilities and regularly attended the work placement within the adult day program.

Dependent Behaviors

The primary dependent behavior was participant *compliance* with a staff instruction, defined as a participant performing what was instructed (a staff vocal and/or signed directive to do something), which had to be initiated within 5 s of the instruction. Compliance was targeted because previous research has suggested that it may be differentially affected when instructions are provided by staff with good relationships with consumers versus the lack of such relationships (McLaughlin & Carr, 2005). Further, *noncompliance* is often maintained by attention or escape (McKerchar & Abby, 2012; Rodriguez, Thompson, & Baynham 2010). If a staff person does not have a good relationship or is otherwise nonpreferred, the staff person's presence and presentation of an instructional demand may be an aversive event as noted previously that promotes escape that is incompatible with compliance. In contrast, a good relationship may attenuate the aversiveness such that escape is less likely (Carr et al. 2003). Additionally, if a staff person has a good relationship or is otherwise preferred by an individual, the staff person's presence may function as a setting event for promoting compliance by the individual in order to receive desired praise from the staff person, assuming the praise has a history of being provided contingent on compliance and not in response to noncompliant behavior (Rodriguez et al., 2010).

There were also four secondary dependent behaviors. First, *on-task* was defined as a participant engaging in behavior necessary to complete a work task or in the process of being instructed how to perform a work task. On-task was targeted because it is an important aspect of successful job

performance in terms of amount of time spent working on assigned job tasks. Also, *on-task* seemed likely to be affected by compliance of the participants to staff instructions to work and therefore likely to be at least indirectly affected in the same manner as just described with compliance. The latter reason would seem most relevant when participants work on unfamiliar tasks for which they likely require more instructional assistance to perform relative to tasks with which they are familiar. Second, *problem behavior* was defined as any action likely to cause harm to person or property. Additionally, problem behavior identified in existing participant treatment plans that could occur within the work sessions was also included. The latter involved the following: Mr. Lutz, pacing (walking in at least two different directions with no apparent purpose or destination), spitting, running from the immediate area; Mr. Fox, jumping up and down, yelling; Mr. Bettis, slamming a chair while sitting, slamming doors, yelling, kicking walls or doors; Mr. Dane, grabbing others, lying on the floor, throwing shoes, leaving the immediate area unannounced. Problem behavior was targeted for reasons summarized earlier in terms of it being differentially associated at times when different staff work with people who have severe disabilities.

The other two secondary behaviors were *indices of happiness* and *unhappiness*. These were developed based on a consensus of familiar caregivers for each participant (Parsons, Reid, Bentley, Inman, & Lattimore, 2012). Briefly, three program staff who were familiar with each participant in terms of having worked at least weekly with each participant for a minimum one and a half years (average 5.1 years) completed questionnaires regarding what behaviors each participant displayed when perceived to be happy and unhappy, respectively. Those behaviors that at least two familiar staff independently recorded for happiness and unhappiness, respectively, were targeted as indices. This process resulted in the following happiness indices: Mr. Lutz, smiling, bouncing up and down, holding someone's hand; Mr. Fox, smiling, humming, singing; Mr. Bettis, smiling, dancing (rocking and shaking his hips in a dance-like movement); Mr. Dane, spinning in a circle while standing. Unhappiness indices were: Mr. Lutz, running from an area or people; Mr. Fox, biting hand/arm, hitting head, yelling; Mr. Bettis, slamming furniture, shaking head (apparently indicating "no"), yelling a disapproval statement ("no", "won't do", cursing); Mr. Dane: biting hand/arm, hitting head, spinning while sitting or lying on floor, grabbing others.

Indices of happiness and unhappiness were targeted for two main reasons. First, variations in these indices across different staff working with the participants could represent differences in ongoing quality of life (Parsons et al., 2012), albeit restricted to the circumscribed situations in which the staff worked with the participants. Second, as described previously, these measures are generally considered indicators of the type of

relationship between a given staff person and an individual with a severe disability.

Observation Procedures

Observations were conducted for 10 min during participant work periods. Compliance to instructions was observed using a continuous recording process throughout each observation period. On-task was scored using a 15-s whole interval process whereas problem behavior, happiness indices, and unhappiness indices were scored on a 15-s partial interval basis. The observation process required the observer to mark the observation form code for compliance each time it was observed across the 15-s intervals, mark the first time that problem behavior and a happiness and unhappiness index occurred within each interval (if the respective behavior occurred) and then mark at the end of each interval if on-task occurred.

Across both phases of the investigation, interobserver agreement checks were conducted during at least 30 % of observation sessions, including during each experimental condition for each participant within each phase. For compliance to instructions, which was observed and recorded continuously, interobserver agreement was calculated by dividing the smaller percentage of compliance recorded by one observer by the larger percentage recorded by the other observer and averaged 90 % (averages across individual participants ranged from 84 to 97 %). For the behavior categories observed using an interval process, interobserver agreement was assessed on an interval-by-interval basis for overall agreement, occurrence agreement, and nonoccurrence, calculated using the formula of number of agreements divided by number of agreements plus disagreements, multiplied by 100 %. For the behavior categories of on-task, problem behavior, happiness indices, and unhappiness indices, overall agreement averaged 98, 99, 95, and 100 %, respectively. Respective averages for occurrence agreement were 95, 93, 74, and 100 % and for nonoccurrence, 73, 99, 86, and 100 %.

Phase I: Comparing Familiar Experienced Staff with Unfamiliar Experienced Staff

The purpose of Phase I was to compare participant behavior when working with staff who were experienced working with adults with severe disabilities and were familiar with the target participants versus staff who were experienced working with adults with severe disabilities but were not familiar with the target participants. Phase I was designed to represent the situation in many human service agencies noted previously in which staff working with consumers in one part of an agency are re-assigned to work with consumers in another part of the agency.

Experimental Procedures

Participants The participants were Mr. Lutz and Mr. Fox. The familiar staff person (S1) for Mr. Lutz was a teacher assistant who had worked with Mr. Lutz in the day treatment program for 7 years. The unfamiliar staff person (S2) was a teacher in another class in the day treatment program who had 9 years of teaching experience with people with severe disabilities but had not worked with Mr. Lutz. The familiar staff person (S3) for Mr. Fox was a teacher who had worked with him for 1.5 years. The unfamiliar staff person for Mr. Fox (S4) was a teacher who had 19 years of teaching experience, but not with Mr. Fox. The unfamiliar staff (S2 and S4) were randomly assigned to work with their respective participant.

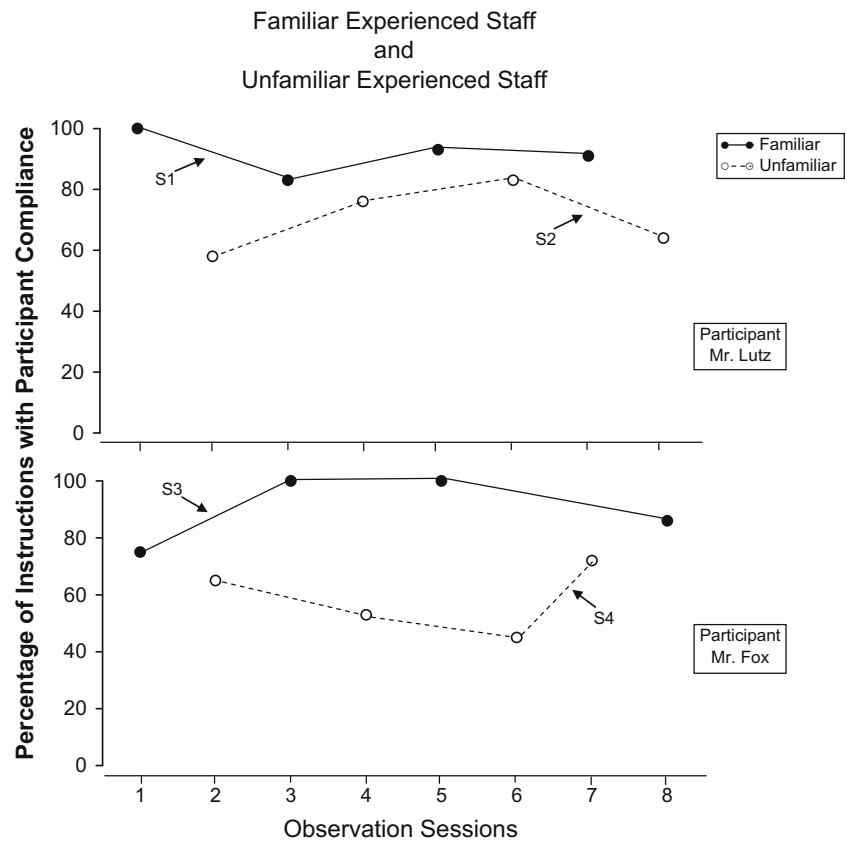
Experimental Design and Conditions A multi-element design was used to observe participant performance during their work routines when working with an experienced, familiar staff person (S1 for Mr. Lutz and S3 for Mr. Fox) and concurrently with an experienced, unfamiliar staff person (S2 for Mr. Lutz and S4 for Mr. Fox). The respective familiar and unfamiliar staff worked with the participants on alternating days (unless a staff person was absent, in which case the other staff person worked with the participant; see Fig. 1).

Prior to the unfamiliar staff person working with a participant, she was provided with a copy of the participant's overall treatment plan to review, including procedures related to problem behavior and the participant's teaching/support plan associated with his work duties. The unfamiliar staff person was also provided with a listing and schedule of all work activities to be completed by the participant. While the unfamiliar staff person worked with the participant, other staff (familiar with the participant) worked with the other consumers who were present in the same work room as the target participant according to the usual schedule. The unfamiliar staff person was instructed that she could ask the regular staff person any questions or advice during the work routine as she deemed necessary. Otherwise, the work routine continued as usual according to the scheduled job duties. The process just described in terms of information provided to the unfamiliar staff person is similar to what we have observed to occur in many human service agencies when an experienced staff person is temporarily re-assigned to work with a consumer who is not a part of the staff person's regular consumer caseload.

Results and Discussion

As indicated in Fig. 1, each participant's compliance to staff instructions (primary target behavior) was consistently higher when the familiar staff person worked with him relative to when the unfamiliar staff person worked with him. Mr. Lutz averaged 92 % compliance (range, 83 to 100 %) when

Fig. 1 Percentage of instructions with participant compliance for each participant and staff (S) pairing for each experimental condition



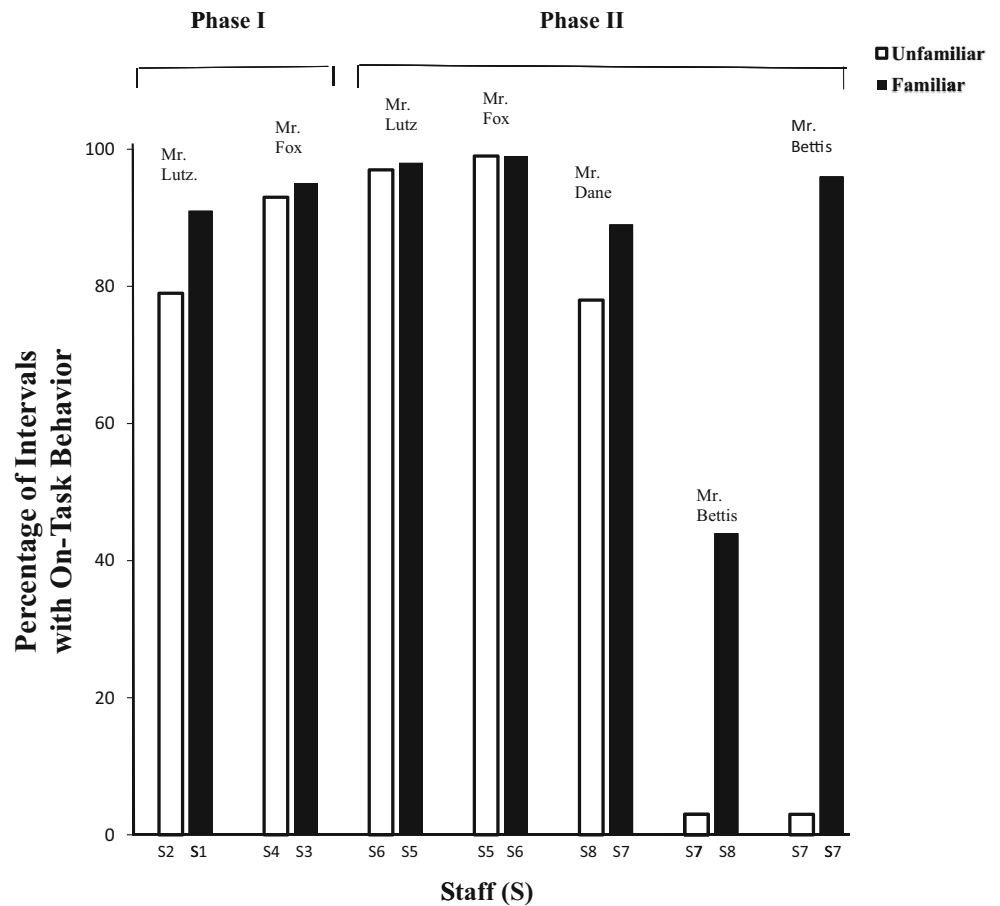
working with the familiar staff (S1 in Fig. 1) compared to 70 % (range, 58 to 83 %) with the unfamiliar staff person (S2). Similarly, Mr. Fox averaged 90 % compliance (range, 75 to 100 %) with the familiar staff person (S3) compared to 59 % (range, 45 to 72 %) with the unfamiliar staff person (S4).

Results for the secondary target behaviors were much more variable across behaviors and participants. However, several overall differences were noted in terms of average percentage of observation intervals in which the different behaviors occurred. As indicated in Fig. 2 (first two bars), Mr. Lutz averaged more on-task behavior when the familiar staff person was working with him (91 %, range 83 to 95 %) relative to when the unfamiliar staff worked with him (78 %, range 46 to 94 %). On-task for Mr. Fox (second two bars in Fig. 2) occurred at a high percentage of intervals when both staff worked with him (average of 95 % with the familiar staff with a range of 82 to 100 %, and 97 % with the unfamiliar staff person with a range of 90 to 100 %). As often occurs with observations of happiness indices among adults with severe disabilities (see Dillon & Carr, 2007; Reid, 2016, Chapter 4 for discussion), these indices occurred during a small percentage of observation intervals for both participants (first two pairs of bars in Fig. 3). However, the averages for happiness indices were slightly higher when the familiar staff person worked with both participants, averaging 7 % (range, 0 to 16 %) for Mr. Lutz and 3 % (range, 0 to 10 %) for Mr. Fox

relative to respective averages of 3 % (range, 0 to 10 %) and 1 % (range, 0 to 5 %) when the unfamiliar staff were working with the two respective participants. Problem behavior was never observed for either participant, and unhappiness was never observed for Mr. Lutz (no figure for these latter two secondary target behaviors). A low level of unhappiness indices was observed for Mr. Fox, averaging 7 % (range, 0 to 20 %) when the unfamiliar staff person worked with him. Mr. Fox displayed no unhappiness indices when the familiar staff person was working with him.

Results of Phase 1 indicated that participant compliance occurred more frequently when experienced, familiar staff were working with them relative to when experienced, unfamiliar staff worked with them. There was also more on-task for Mr. Lutz with the familiar staff (on-task for Mr. Fox was close to ceiling levels for both staff). There were also other indications of what could be considered a better relationship of the two participants with the familiar staff than the unfamiliar staff, although by no means demonstrative. As just noted, indices of happiness and unhappiness indices are often observed at low frequencies. To illustrate, some individuals may be quite happy (a private event) but not display overt indicators of happiness (Dillon & Carr, 2007). Consequently, small differences in occurrence of these indices can be considered to obtain more social significance relative to behaviors that are not targeted as representing a private event and usually

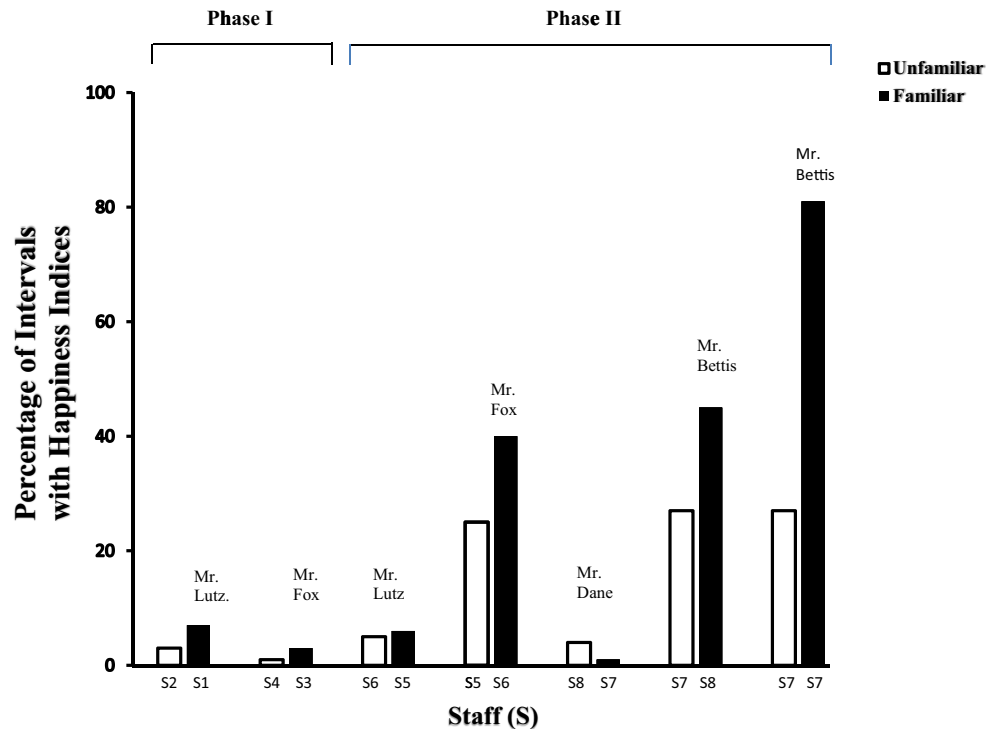
Fig. 2 Average percentage of observation intervals with on-task behavior for each participant and staff pairing for each experimental condition



occur at higher frequencies (Reid, 2016, Chapter 4). Both participants had slightly higher averages of happiness indices

when the familiar staff worked with them compared to when the unfamiliar staff worked with them. Additionally, the only

Fig. 3 Average percentage of observation intervals with happiness indices for each participant and staff pairing for each experimental condition



occurrence of unhappiness indices in Phase I was when the unfamiliar staff person worked with Mr. Fox.

In light of the results just summarized, Phase II was conducted to evaluate a means of familiarizing staff when first assigned to work with an adult with a severe disability including autism on the severe end of the spectrum. The familiarization process was evaluated in terms of effects on the same target behaviors described in Phase I. Phase II also addressed the second situation in which unfamiliar staff work with consumers in human service agencies noted earlier—that of when new personnel begin working in the agency. This situation was addressed when new staff began working with individuals on job tasks with which the individuals were familiar as in Phase I, and when individuals worked on novel, *unfamiliar* job tasks. The latter component was included for two reasons. First, it likewise represented a situation that can occur in human service settings—that of a new staff person working with a consumer when the consumer is presented with a task that the consumer has not previously experienced. Second, the participants' familiarity with the work tasks in Phase I may have related to the generally high levels of on-task observed. When the unfamiliar staff began working with the participants in Phase I, the participants did not require many instructions to perform the (familiar) tasks. When faced with performing novel, unfamiliar work tasks, however, adults with severe disabilities are likely to require more instructional assistance from staff. Whether the increased assistance is provided by familiar versus unfamiliar staff may affect both compliance and on-task by the consumers.

Phase II: Comparing Familiarized Inexperienced Staff with Unfamiliar Inexperienced Staff

Experimental Procedures

Participants All four participants were involved in Phase II. The staff participants were four recreation interns who were fulfilling their internship requirements in the human service agency. The latter women were in their early 20s and were in the final year of their undergraduate program in therapeutic recreation. The interns had been working for several months with recreation staff at the agency to provide leisure activities for adults with severe disabilities at the initiation of their involvement in the investigation. However, they had not worked with any consumers in vocational situations such as occurred in the investigation and they had not worked individually with the target participants. Each intern agreed to participate in the investigation on a voluntary basis when asked if they would be willing to participate. They were not informed of the purpose of the investigation other than a desire to see how the participants performed their job tasks when unfamiliar staff worked with them.

Experimental Design and Conditions The experimental design was the same as in Phase I. However, to represent a familiar staff person as occurred in Phase I, each staff member received a familiarization intervention prior to fulfilling that role. Additionally, an across-staff replication occurred in which one staff member who was unfamiliar with a participant later received the familiarization intervention and then continued working with the participant as a familiarized staff. One new staff person (S5) worked with Mr. Lutz after being familiarized with him and concurrently with Mr. Fox in the unfamiliar condition. Concurrently, another new staff person (S6) worked with Mr. Lutz in the unfamiliar condition and with Mr. Fox after being familiarized. A third new staff person (S7) worked with Mr. Dane after being familiarized with him and concurrently with Mr. Bettis in the unfamiliar condition. The fourth new staff person (S8) concurrently worked with Mr. Bettis after being familiarized and with Mr. Dane in the unfamiliar condition. The four staff persons were arbitrarily assigned to their respective participants. Finally, S7 then worked with Mr. Bettis after being familiarized with him (the replication referred to earlier). Observed experimental sessions (i.e., the ongoing work sessions) occurred in the same manner as described in Phase I.

It should also be noted that because of the lack of experience of the recreation interns (representing staff in this phase), a discontinuation criterion was established prior to beginning Phase II to protect all individuals from possible harm. Although the participants rarely engaged in problem behavior at the time of the investigation, each had historically displayed such. The criterion for discontinuing a session was that a participant began to engage in aggressive or self-injurious behavior such that physical harm seemed likely if not interrupted. Discontinuation of a session based on these criteria occurred one time (see “[Results and Discussion](#)”).

Prior to the new staff working with any participant in any condition, they received the same initial set of information about their respective participant with whom they would be working and scheduled work activities as described in Phase I. Additionally, a familiarization intervention occurred with each staff member prior to her working with a participant in the familiarized role that involved two primary components. The first component was a Fun Time Program (cf. Green & Reid, 1996) designed for the staff person to participate in an activity that was reported to be preferred by her respective participant. The preferred activity was selected based on an independently obtained consensus of at least two regular staff of the day program who were familiar with the participant (same staff and process as described with the identification of the happiness and unhappiness indices) and as recommended elsewhere when relying on staff opinion about the preferences of adults with severe disabilities

(Reid et al., 2007). The intent of the Fun Time Program was both to allow an opportunity for the new staff person to interact with the participant (and vice versa) and to be paired with something the participant enjoyed. For all four participants, the preferred activity was having a snack in a leisure/lounge area in the day treatment program. A familiar staff person (either S1 or S3 from Phase I) was present with the target unfamiliar staff member and participant during the familiarization process to provide direction such that the snack activity would occur in its usual fashion—again as preferred by the participant. Additionally, the regular staff person informed the target unfamiliar staff person about other participant likes and dislikes and problems that may arise with the snack routine and how to deal with them based on the regular staff person's familiarity with the participant (if beyond what was in the initial written information provided to the new staff as noted previously). The target staff person who was being familiarized helped the participant acquire the snack with instructional assistance from the regular staff as necessary, interacted socially with the participant during the activity, and remained in close proximity (e.g., sat at the table with the participant). Three or four instances of the Fun Time Program initially occurred with each new staff person and respective participant prior to the (now familiarized) staff working with the participant during the participant's paid work sessions. Additionally, because there was an interruption of several weeks after the initial Fun Time periods for S7 and S8 with their respective participants with whom they were familiarized due to participant quarantine in their residence because of illness, they each were involved in two more Fun Time periods immediately prior to them working with their participants.

The second component of the familiarization intervention involved phasing the new staff person into working with the participant. The new staff person attended a work period with the participant conducted by the regular staff and watched the ongoing work activities for the first 20 min of the period. During the second 20 min of the work period, the new staff person alternated providing instructions to the participant (if needed to promote on-task) with the regular staff person, with the latter staff always remaining within 5 ft of the participant. Subsequently, for the next 15–20 min of the session, the new staff person worked with the participant and the regular staff person provided instructions only to the new staff person (not the participant) such as when to instruct the participant to begin or resume working, praise the participant's work behavior, and generally follow the schedule of assigned work tasks based on how the regular staff person typically worked with the participant. During the remaining few minutes of the class session, the regular staff person removed himself from close proximity of the participant and new staff person but remained in the room. At this point, the process only involved the new

staff person working with the participant on work tasks with which the participant was already familiar (i.e., for S7 and S8, the new work tasks to be completed during the target work sessions had not yet been introduced).

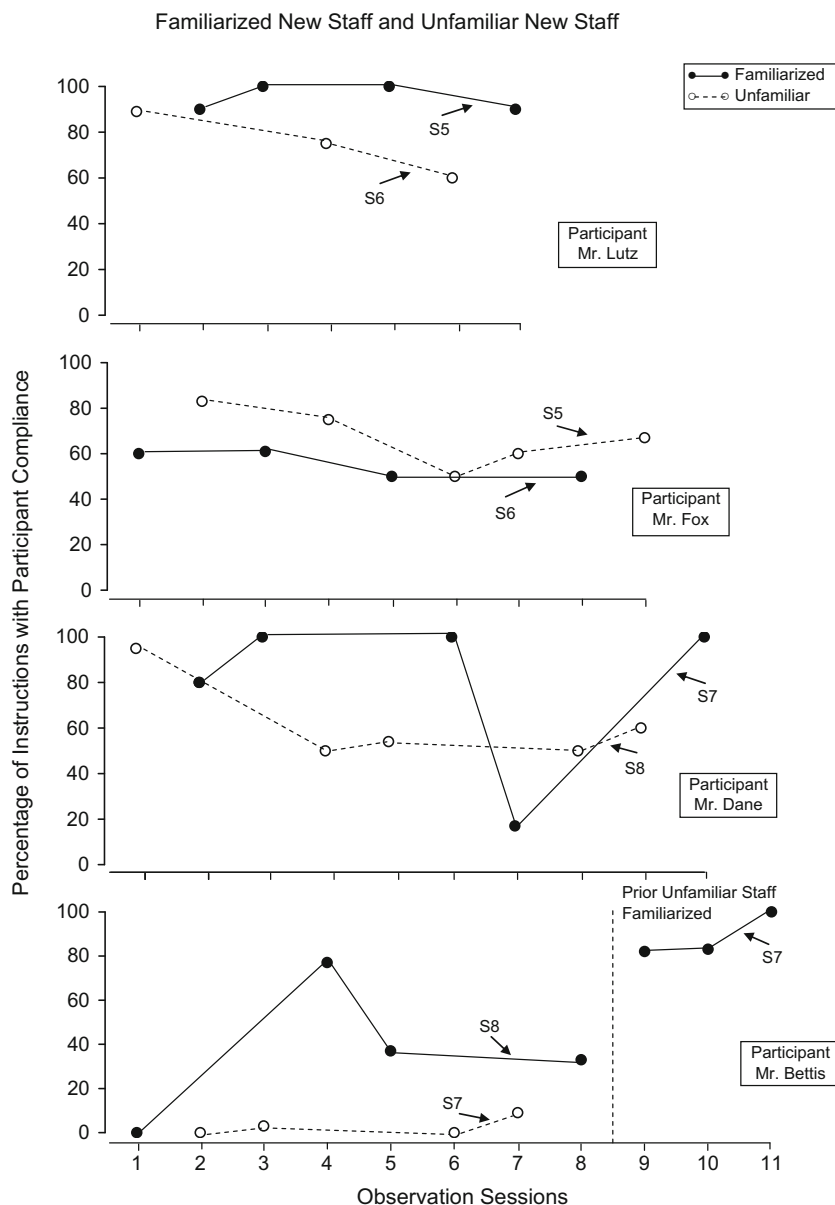
On another week day, a second session was conducted as part of the phase-in process. During this session, the new staff initially worked with the participant on any assigned work task, including the novel clerical work tasks (S7 and S8 when becoming familiarized with their participants), while the regular staff observed from a distance and provided instructions to the new staff if needed to promote on-task behavior. During the last half of the work session, the regular staff periodically left and then re-entered the class. During a third work session on another day as part of the phase-in process, the new staff worked with the participant while the regular staff was not present in the work area but was close by outside such that the new staff could call for assistance if needed. Probes conducted with the observation system described previously indicated none of the four participants displayed any problem behavior or indices of unhappiness during the phase-in process.

In summary, S5 worked with Mr. Lutz after being familiarized while S6 concurrently worked with Mr. Lutz in the unfamiliar role, and S6 worked Mr. Fox after being familiarized while S5 worked concurrently with Mr. Fox in the unfamiliar role. Both of these staff worked with the two participants while they worked on a familiar work task. Subsequently, S7 and S8 worked with Mr. Dane and Mr. Bettis on new (unfamiliar) work tasks. S7 worked with Mr. Dane after being familiarized with him while S8 worked concurrently with Mr. Dane in the unfamiliar condition. Concurrently, S7 worked with Mr. Bettis in the unfamiliar role while S8 worked with him after being familiarized. Finally, S7 then worked with Mr. Bettis after being familiarized with him.

Results and Discussion

For the primary dependent measure of compliance, three of the four participants displayed more compliance when the familiarized staff person was working with them compared to when the unfamiliar staff person worked with them (Fig. 4). Consistent differences in terms of more compliance of participants when working with the familiarized staff occurred for Mr. Lutz (average of 92 vs. 70 % with the unfamiliar staff person) and Mr. Bettis (37 % with the familiarized staff vs. 3 % with the unfamiliar staff). Mr. Dane showed less consistent differences, although still averaging 79 % with the familiarized staff versus 62 % with the unfamiliar staff. Also, the most noticeable and perhaps most convincing difference occurred with the replication with S7 with Mr. Bettis. After S7 was familiarized with him, his on-task increased to 88 % compared to only 3 % during the preceding sessions when S7 was unfamiliar. The only discrepant result (and relative to the

Fig. 4 Percentage of instructions with participant compliance for each participant and staff (S) pairing for each experimental condition



results of Phase I) occurred with Mr. Fox, who averaged 67 % compliance with the unfamiliar staff and 57 % with the familiarized staff.

For the secondary behavior of on-task (Fig. 2), results seemed to suggest that the effect of the familiarization intervention was more apparent when staff were working with participants on tasks that the participants had not previously completed. On-task (first two pairs of bars in Phase II in Fig. 2) was near ceiling levels (averaging at least 97 % per participant) when both the unfamiliar and familiarized staff worked with Mr. Lutz and Mr. Fox on work tasks that they had been performing for over a year prior to the investigation. In contrast, for the participants who worked on newly assigned tasks (Mr. Dane and Mr. Bettis), on-task was higher when the familiarized staff was working with them. Mr. Dane averaged 89 % on-task with the familiarized staff versus 78 %

with the unfamiliar staff and respective averages for Mr. Bettis were 44 and 3 %. Further, the 3 % average for Mr. Bettis when working with the unfamiliar staff increased to 96 % after that staff person (S7) had received the familiarization intervention.

For the secondary behavior of happiness indices, these indices were most frequent for Mr. Fox and Mr. Bettis (Fig. 3). Each of these participants also displayed more happiness indices when working with familiarized staff than with unfamiliar staff. Happiness indices averaged 40 % when Mr. Fox was working with the familiarized staff (S6 in Fig. 3) and 25 % with the unfamiliar staff (S5). Mr. Bettis averaged 45 % when working with the familiarized staff compared to 27 % with the unfamiliar staff. The 25 % average with the unfamiliar staff then increased to 81 % after she (S7) received the familiarization intervention, again likely representing the most convincing behavior change regarding happiness indices. Results for

Mr. Lutz and Mr. Dane were similar to Phase I in terms of showing low levels of happiness, averaging 6 % when Mr. Lutz was working with the familiarized staff (S5) and 5 % with the unfamiliar staff (S6). Respective averages for Mr. Dane were 1 and 4 %. The happiness results for Mr. Dane may have been deflated due to his target index of happiness. The only behavior that familiar staff agreed he displayed when happy was spinning in a circle when standing. Because Mr. Dane's clerical work tasks were conducted while sitting at a work table, there was little opportunity for him to display his indicator of happiness (e.g., only when approaching and getting up from the work table).

As also similar to results of Phase I, unhappiness indices and problem behavior were observed very infrequently (again, no figure for these secondary behaviors). These secondary target behaviors were only observed to occur for Mr. Dane. Unhappiness indices for Mr. Dane averaged 2 % with the familiarized staff and 4 % with the unfamiliar staff, and problem behavior averaged 2 % with the familiarized staff and 5 % with the unfamiliar staff. It should also be noted that one session with another participant, Mr. Lutz, had to be terminated based on the pre-established discontinuation criterion (no observational data are reported from that session) when the unfamiliar staff (S6) was working with him. Specifically, during one session, when S6 leaned close to Mr. Lutz to begin to correct a work error, he grabbed her face and neck such that another staff person (experienced staff working with another worker in the room) intervened to block Mr. Lutz's action. The session was terminated at that point (no significant harm occurred although S6's face and neck showed red marks for a short time).

General Discussion and Recommendations for Practitioners

Results of Phase I suggested a negative impact on the behavior of adults with severe disabilities including autism on the severe end of the spectrum when unfamiliar staff worked with them relative to familiar staff. Both participants showed less compliance with unfamiliar staff, one showed less on-task (the other had near ceiling levels with both staff), both showed infrequent but very slightly lower levels of happiness indices, and one showed slightly higher levels of unhappiness indices (neither showed any problem behavior). Perhaps most importantly in this regard, across all dependent behaviors for both participants, on a comparison basis, there was no indication of a positive impact of an unfamiliar staff working with them relative to a familiar staff or, conversely, no negative impact of the familiar staff.

Results of Phase II subsequently suggested a beneficial impact of familiarizing new staff before working with individuals relative to not familiarizing new staff. Specifically, three

of four participants showed more compliance with the familiarized staff relative to with the unfamiliar staff, and one participant displayed more compliance after an unfamiliar staff was familiarized. Additionally, although on-task was near ceiling levels for both familiar and unfamiliar staff for two participants (when working on familiar tasks), for the other two participants, on-task was higher with the familiar staff (when working on novel, unfamiliar tasks). Three of four participants also displayed more happiness indices with familiarized staff versus unfamiliar staff, although the difference for one was very slight. The only unhappiness that was observed occurred for one participant, and was slightly more frequent, with the unfamiliar staff. Problem behavior was likewise slightly more frequent for this participant with the unfamiliar staff. Problem behavior was not observed with the other participants in Phase II except when considering the termination of one session with one participant due to his problem behavior when with the unfamiliar staff.

The results overall seem to suggest two implications for behavior analyst practitioners working in human service agencies when new or otherwise unfamiliar staff are likely to begin working with adults with severe disabilities including autism. First, it is recommended that behavior analysts be aware that there are likely to be negative impacts of the unfamiliar staff on the behavior of the agency consumers. This implication is suggested by the results of both Phase I and Phase II and particularly in regard to consumer compliance. Second, and stemming from the first implication, is that behavior analysts should consider familiarizing the unfamiliar staff in a manner such as occurred in this investigation. The familiarization process seems to represent a means of preventing or at least reducing problems with compliance and possibly with on-task (especially if consumers are being presented with new tasks when the staff begin working with them) as well as at least somewhat with happiness/unhappiness indices and problem behavior. The likely effect on happiness/unhappiness indices and problem behavior, however, is quite tentative given that there were large effects of a beneficial nature only on an inconsistent basis (e.g., with happiness indices for participants Mr. Fox and Mr. Bettis but not the other two participants when staff had been familiarized).

In considering the above recommendations for behavior analysts, the familiarization process evaluated in this investigation warrants discussion. One possible reason previously noted regarding why an unfamiliar staff person may be nonpreferred by an individual with a severe disability is that the unfamiliarity itself may be the relevant variable, and particularly for people who prefer sameness in their environment. This possibility was addressed in the familiarization intervention through the phase-in process, in which new staff spent time in the work sessions with a

regular (familiar) staff present and began providing instructions to the participants gradually. It was assumed that as the new staff spent more time with the participants, their familiarity with each other increased as the amount of instructions provided by the new staff gradually increased. Additionally, the Fun Time aspect of the familiarization process allowed opportunities for time spent together and increased familiarity.

A second possible reason previously noted regarding negative effects of unfamiliar staff working with people with severe disabilities is the lack of a good relationship having developed between the staff person and an individual consumer (McLaughlin & Carr, 2005). The familiarization intervention was intended to address this reason by pairing the new staff person with an activity that was preferred by the individual with whom the staff would be working (Jerome & Sturmey, 2008). To accomplish this goal of the familiarization process, behavior analysts must have identified preferences of respective adults with severe disabilities to incorporate in the process. In the current investigation, preferences were identified based on a consensus of familiar caregivers. This process for identifying preferences has been effective in a number of investigations and particularly in regard to identifying strongest preferences of an individual although such a process does not always result in accurate preference identification (see Dillon & Carr, 2007; Reid & Green, 2006, for summaries). However, there are a number of well-established, systematic preference assessment strategies that behavior analysts could turn to if concerned about the accuracy of caregiver reports of preferences (Graff & Karsten, 2012).

As indicated previously, the importance of relationships between human service staff and people with developmental disabilities has been well noted. Considerably, less attention though has been directed to research on how to develop good relationships. In this regard, good relationships likely involve a number of components (Karaslan & Mahoney, 2013; McLaughlin & Carr, 2005). The familiarization process in this investigation only focused on two possible components. First, an attempt was made to increase the preferred status of unfamiliar staff by pairing them with preferred activities of the participants. Second, it was intended that unfamiliar staff would gain familiarity with the participants prior to formally working with them (with a gradual fading in of presenting instructional demands related to expected work activity). The degree to which either of these two components respectively affected the behavior changes that were observed cannot be determined at this point, suggesting a need for additional research (i.e., a component analysis).

It should also be noted that a detailed analysis of how the unfamiliar and familiar staff interacted with the

consumers was not conducted. It may have been that interaction styles (e.g., rate of instructing, prompting strategies) consistently differed across the two types of staff. One such analysis was possible on a retrospective basis with the data obtained in Phase I that indicated the two familiar staff presented a lower frequency of instructions (averages of 15 and 5 instructions per session for the two familiar staff, respectively) than did the unfamiliar staff (respective averages of 25 and 17), which conceivably could have affected the target consumer behaviors. However, there were no consistent differences in number of instructions per session across the familiarized and unfamiliar staff pairings in Phase II (with an overall average across all familiarized staff of 17 instructions per session vs. 14 across all unfamiliar staff). It would be helpful though if future research examines interaction styles between familiar and unfamiliar staff to provide a more detailed evaluation of potentially relevant variables.

For the above reasons as well as the variability in the results observed, we do not imply that this investigation demonstrates the benefits of establishing good relationships between human service staff and adults with severe disabilities. Rather, we suggest that it presents at least *a case for relationship building*. Nonetheless, we and many others (e.g., Baumeister & Zaharia, 1987; Larson, Hewitt, & Lakin, 2004; Sturmey, 1998; Test, Flowers, Hewitt, & Sollow, 2003) have observed a number of problematic issues when new or otherwise unfamiliar staff begin working with consumers in adult service agencies and hope that the results here and corresponding implications will be of benefit for other behavior analysts who encounter problems in this respect.

We also hope that this investigation will promote further research on reducing problems associated with unfamiliar staff working with adults with severe disabilities. One means of promoting such research may stem from the experiences of behavior analysts who have developed or implemented strategies for preparing new staff to work with consumers. We have been exposed to several such programs in agencies providing behavior analytic services for young children with autism with seemingly good outcomes. However, we are not familiar with research that has closely evaluated the programs, nor with existing programs for adults. We offer encouragement for behavior analysts who have had programmatic success in this area to consider, where possible, applied research undertakings to evaluate and hopefully, share their successes with other practitioners. Such a process could expand the availability of evidence-based strategies for resolving problems associated with unfamiliar staff working with consumers in human service agencies. On a more general basis, practitioner-conducted research on issues regularly encountered by practitioners could help expand behavior

analysis technology for solving problems of every day social significance (Kelley et al., 2015).

Compliance with Ethical Standards

Funding There was no external funding for this research.

Conflict of Interest Each author declares no conflict of interest.

Human and Animal Rights and Informed Consent All procedures were performed in accordance with the ethical standards of the institutional research committee and the 1964 Helsinki declaration and comparable standards. All required informed consent was obtained for participants in the study.

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