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## Assessing the Generalization of Relapse-Prevention Behaviors of Sexual Offenders Diagnosed With an Intellectual Disability

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**Keywords**

Behavioral skills, generalization, sexual offenders, treatment setting, natural environment, lack of generalization, clinic, community, other

A crucial component in the treatment of sexual offenders is the transfer of behavioral skills from the treatment setting to the natural environment. Indeed, numerous authors have reported the lack of generalization of sexual offender treatment behaviors from the clinic to the community and other

self-reports of sex offenders' past offenses far exceed their arrest records (Abel et al., 1987; Groth, Longo, & McFadin, 1982; Weinrott & Saylor, 1991). Alternatives to arrest or reconviction rates typically used in evaluation of treatment programs are self-report measures of reoffending or treatment effectiveness. However, self-report measures are also inadequate for determining the efficacy of relapse-prevention behaviors with sexual offenders in general, and particularly with those who also experience intellectual disabilities. The disclosure of deviant behavior in which anonymity is not provided can have severe consequences for the offender that decreases the probability of reporting such acts (Abel, Mittelman, Becker, Rathner, & Rouleau, 1988). In addition, the non anonymous self-reports of offenders can be unreliable in identifying what controls sexual arousal (Hinton, O'Neil, & Webster, 1980; Quinsey, Steinman, Bergersen, & Holmes, 1975; Rea et al., 2003) and in revealing whether they have recently engaged in deviant behavior (Rosen & Kopel, 1977).

Having a clear conceptualization of generalization would appear to be essential in any successful efforts in evaluating it. Stimulus generalization is defined as the occurrence of relevant behavior under different, nontraining conditions without the scheduling of the same events in those conditions as in the training settings (Stokes & Baer, 1977). Generalization across settings and staff relative to relapse prevention is evident when the offender displays the targeted responses during different, nontraining conditions without additional training. For example, generalization could be said to occur if the offender displays the taught response (e.g., choosing appropriate routes, avoiding potential victims, etc.) in the presence of novel individuals or in a setting, such as a store, in which she/he has never received training.

In this study, we investigated the degree to which sexual offenders with a diagnosed intellectual disability adhered to their relapse plans, while accompanied on a community outing with three companions who varied in levels of familiarity (treatment staff [TS], nontreatment staff [NTS], and a community adult [CA]). We first collected compliance with relapse-prevention behaviors for each of 10 participants separately across the three different companion conditions. We examined generalization at an aggregated rather than individual level by pooling compliance data for all 10 participants. That is, we evaluated the degree to which the trained responses generalized across the variable of companion familiarity for the entire group. We also analyzed these data to determine each individual's compliance with his relapse-prevention behaviors in the community setting with all three companions and subsequently identified variables associated with differing levels of generalization displayed by offenders.

## **Method**

### *Participants*

The participants were 10 males between 18 and 28 years of age (mean age of 23.8) from residential units at a Kansas state agency where the first two authors are employed that specializes in the treatment of sexual offenders with diagnosed intellectual disabilities. Prior to the participants' involvement in this study, approval was obtained from Wichita State University's Internal Review Board, the agency's Human Rights Committee, each participant's treatment team, and the agency Superintendent. In addition, procedures were approved by the agency Behavior Review Board and informed consent was obtained from the participants' guardians. If any of the participants demonstrated any distress during the study, they were referred to their respective treatment team for follow up. At any point during the research the participant could withdraw from the study without it affecting their treatment program. As seen in Table 1, all had previously molested children, with a majority (6 of 10) having a history of additional sexual offenses. They had documented Full-Scale IQ scores

**Table 1.**

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agency grounds in an automobile with one adult companion to a designated local discount store on a weekday (no data were taken on the weekend) during a selected time of day (i.e., between 9 a.m. and noon) that was deemed an appropriate time for the participants to shop. The outing was deliberately structured to violate certain aspects of the participants' relapse-prevention plans to evaluate how they would react to such events. This included the pre-



*CA probe.* Two different individuals served as CA companions. One was a 31-year-old male and the other a 30-year-old female from the community, both who had neither worked with nor were familiar to participants and who had not provided them with feedback regarding their relapse-prevention plans.

### *Training of Companions*

We trained all companions based on a protocol designed to guide their behavior during scenarios that could occur during the community outing with participants assigned to them. We designed these training scenarios to familiarize companions with each of the specific 18 behaviors that constituted participants' relapse-prevention plans and to train companions how to reliably report on participant behavior during the outing. For instance, we informed companions that the participants should avoid areas where potential victims might be present (e.g., the toy aisle at a store, fast food restaurants, parks, and schools). Accordingly, walking down the children's clothing aisle would be in violation of the relapse-prevention plan due to the likelihood of children being present. In another scenario, the participant requests the traveling companion take him to the park rather than instructing the comhim pent. yea en another scen



Table 2. R		C	3 B	(6)
8. D				
9. L				
10. L				
11. L				
<p>If it was in the participant's relapse-prevention plan, did the participant avoid stealing?</p> <p>If it was in the participant's relapse-prevention plan, did the participant avoid having possession of weapons?</p>				
		C	2 B	(7)
4. O				
5. L				
6. L				
7. L				
<p>Did the participant refrain from horseplay?</p> <p>Did the participant follow bathroom rules?</p> <p>Did the participant follow phone rules?</p>				
		C	1 B	(5)
1. D				
2. D				
3. D				
<p>Did the participant choose a destination unlikely to encounter potential victims?</p> <p>Did the participant choose a time unlikely to encounter potential victims?</p>				

N = 100

suggested that elements relevant to sexual offending would consist of verbalizations, approach behavior, and touching. Therefore, these overt behaviors were considered proximal acts to reoffending and were used to judge the other behaviors on a continuum of risk and apply a range of commensurate consequences.

The five Class 1 behaviors reflected whether participants completed pre- and posttrip activity logs and structured the outing in ways to minimize

encounters with potential victims. The Relapse Prevention Activity Log is a form that was divided into two parts. The pretrip section was completed by participants before community outings and was an opportunity to role-play responses to possible problematic situations. The posttrip section was completed when participants returned and was used to score how well they complied with their relapse plan. If any inappropriate behavior occurred within this class of responses, staff prompted the correct response and the participant's performance was reviewed during a group-treatment session at a later time. If compliance did not occur on a consistent basis, more severe consequences such as limited or restricted community outings were implemented.

The second class of seven behaviors involved compliance with the relapse-prevention plan at the community destination and included (a) avoiding areas

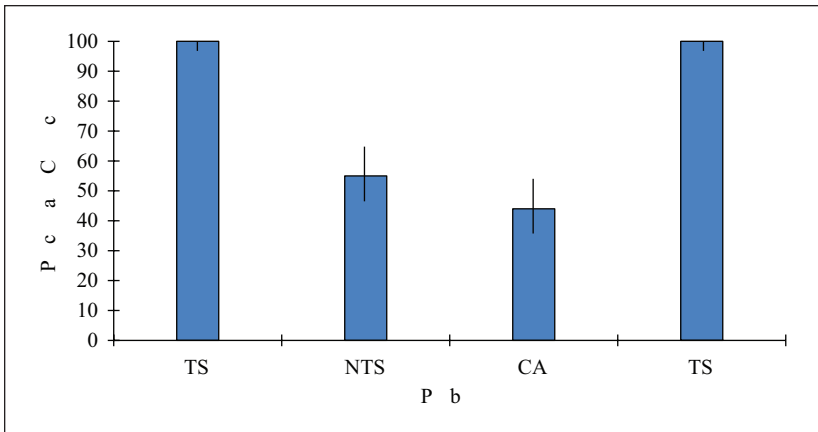
As indicated by italics in Table 2, we did not retain 7 of the 18 behaviors for further analysis. We eliminated two Class 3 behaviors, because only one participant had avoided stealing and only five participants had avoided having weapons in their possession identified in their relapse-prevention plans. We omitted two Class 2 behaviors based on their low/no occurrence (respectively, "Did the participant follow bathroom rules?" and "Did the participant follow phone rules?"), and a third as there was no peer present with whom to interact ("Did the participant refrain from horseplaying?"). Finally, we excluded two Class 1 behaviors due to the participants' inability to engage in them insofar as the destination and time chosen for the outings were predetermined ("Did the participant choose a destination unlikely to encounter potential victims?" and "Did the participant choose a time unlikely to encounter potential victims?"). Thus, each probe session resulted in a percentage of participant compliance with the remaining 11 relapse-prevention plan behaviors with that particular companion that served as our study's dependent variable. We conducted the TS probe first with all participants. We expected participants to display 95% compliance or higher with TS as they had already consistently demonstrated this level of performance for at least the past 6 months with familiar TS. We conducted the NTS and CA probes in a counterbalanced order during the second and third community outings. We conducted a second TS probe during the fourth and final outing to determine whether compliance with each participant's relapse prevention plan would return to that demonstrated during the baseline and first TS probe.

## Results

As previously mentioned, out of the 18 behaviors that were evaluated during each probe session, 11 could have occurred for all the participants while on the community outing. Thus, these 11 behaviors were deemed clinically relevant by a consensus of the participants' treatment teams (e.g., "If potential victims in close range, did the participant stare?") and, accordingly, were retained for further analysis. We conducted all subsequent analyses reported in this section on these data.

### *Main Effect for Companion*

Figure 1 displays the aggregated compliance data for all 11 clinically relevant behaviors across the three companion types. During the first TS probe, responding was 100% correct. During the NTS probe, correct responding decreased to 55%. During the CA probe, compliance was 44% (11% absolute decrease and a 20% relative decrease from the TS probe). When the second TS probe was implemented, responding returned to 100% correct.



**Figure 1.** Compliance percentages and 95% confidence intervals for TS, NTS, and CA probes. The first TS bar represents the first probe, NTS represents the NTS probe, CA represents the CA probe, and the second TS bar represents the second probe.

We calculated confidence intervals (CI) of 95% for the compliance of the relapse-prevention behaviors within TS, NTS, and CA probes to determine any significant differences. Because of the small sample size, we used an Adjusted-Wald Method (Agresti & Coull, 1998). Due to the nonoverlap of the TS CI (97%, 100%) with the NTS CI (46%, 64%) and CA CI (35%, 53%), the TS mean was significantly different from the NTS and CA means. However, due to a large overlap of CIs for NTS and CA (39% overlap), these means were not significantly different from one another (see Figure 1).

### Response Analyses

We next examined the summarized data for each participant on each of the 11 behaviors during the NTS and CA probes. We conducted these individual analyses because the aggregate compliance data may have obscured relevant differences by companion type and in generalization at the level of specific relapse-prevention behaviors. The two TS probes were excluded from further analysis because of 100% compliance by all participants.

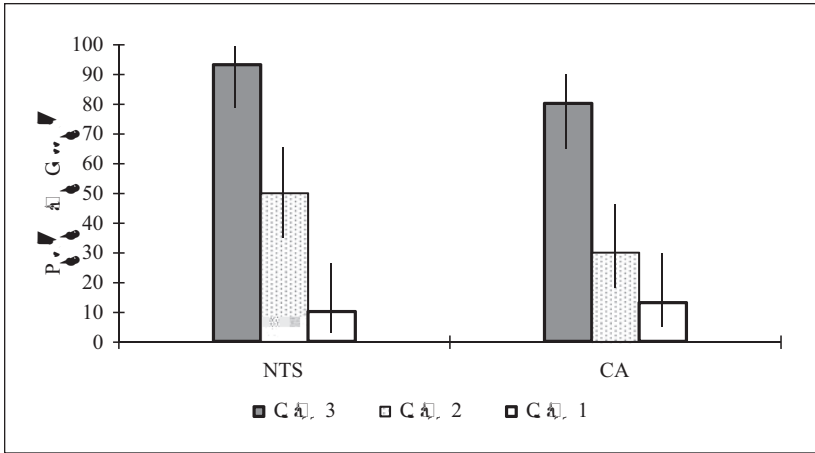
In the absence of any empirical guidelines for doing so, we logically constructed for the purpose of the response analysis three different levels of generalization (high, partial, and low to no generalization). We defined high generalization as at least 9 of the 10 participants displaying the correct response to a particular clinically relevant behavior, partial generalization as a range of 3 to 8 participants displaying compliance, and low to no



Table 3. C ... A ... R ... P ... B ... P ... C ... E P

E ...

	TS	NTS	CA	TS	NTS	CA	TS	NTS	CA	TS	NTS	CA	TS
8													
9													
10													
11													



**Figure 2.** Generalization Subgroups

### Generalization Subgroups

We also conducted a generalization analysis at the level of individuals, rather than responses, by calculating the percentage of the 11 relapse-prevention behaviors displayed by each participant by companion condition with these data presented in Table 3. Responding was 27% in the NTS condition for three participants (1, 6, and 10), 55% for Participant 3, 64% for three participants (4, 7, and 8), and 73% for three participants (2, 5, and 9). For the CA condition, overall compliance was lower in general. Responding was 27% for four participants (4, 6, 9, and 10), 36% for two participants (1 and 3), 45% for Participant 2, 64% for Participant 8, and 73% for two participants (5 and 7).

Our examination of variability in individual participant relapse-prevention plan compliance while in the company of companions who were not TS yielded a trifurcation pattern of responding similar to that identified at the level of individual behaviors. For instance, Participants 5, 7, and 8 appeared to represent a subgroup of “high generalizers.” Their compliance was 73%, 64%, and 64%, respectively (67% overall generalization for this trio) in the NTS condition, and 73%, 73%, and 64%, respectively (70% overall) in the CA condition. This resulted in a 3% increase from the NTS to the CA condition and evidence of high generalization from the TS to the NTS and CA probes.

Participants 2, 3, 4, and 9, by contrast, displayed what might be regarded as partial levels of generalization. Compliance for these four was 73%, 55%, 64%, and 73%, respectively, in the NTS probe (66% overall for the quartet), and 45%, 36%, 27%, and 27%, respectively, in the CA probe (34% overall). This represented a 32% decrease and a 48% relative reduction from the NTS to the CA probes for these four participants. Finally, compliance for Participants 1, 6, and 10 reflected a low level of generalization. Individual and overall responding was 27% in the NTS condition and 36%, 27%, and 27%, respectively, in the CA condition (30% overall). This represented an overall increase of 3% and a relative increase of 11% from the NTS to CA indicative of low/no generalization for these participants.

We conducted a series of one-way analyses of variance using the Kruskal–Wallis test to determine what demographic variables might differentiate these three generalization subgroups. This test provides a nonparametric analysis



or to appropriate supervisory staff about their behavior. The participants' 100% compliance during the return to the follow-up TS probe verified the level of familiarity effect and suggested that the reduced levels of compliance during the NTS and CA probes were not due to mere temporal degradation.

This study sheds light on the potential processes that may account for the reported lack of generalization of sexual offender treatment behaviors from the clinic to the community and other extratherapeutic settings (Marques et al., 2005; Rea et al., 2003; Rosen & Kopel, 1977). Marques et al. (2005) reported some reoffenders indicated that they never implemented their relapse-prevention behaviors in the community, while Rea and his colleagues (2003) reported the lack of generalized conditioning from the laboratory to the natural environment. Although we did not evaluate reoffending in this study, we did examine a number of putative proximal measures to reoffend-

generalization across all participants (i.e., staying with staff, avoiding touching, and talking to children) were those whose violations resulted in the most severe consequences. Perhaps similar contingencies if applied to other relapse-prevention behaviors may have produced further generalized avoidance of preoffending behaviors. Tighter contingency management might also contribute to the development of self-control, which has been identified by Hanson, Bourgon, Helmus, and Hodgson (2009) as one of five criminogenic variables predictive of reoffending.

To increase self-control, a commitment response could be shaped and strengthened (Rachlin & Green, 1972). A commitment response is a current choice that results in restricting the range of future choices (Rachlin, 2000). Although it is not practical nor possible to totally restrict all future choices in everyday life, structured activities, such as the completion of the Pretrip Relapse Prevention Activity Log by reviewing what avoidance responses should occur at choice points likely to occur while in the community, might assist offenders in making better choices by publicly specifying to unfamiliar companions what avoidance behaviors they should display. Indeed, results of a meta-analysis indicated that informing an offender's significant others of the relapse-prevention model was one of the two strongest components associated with reductions in

Given the interest in maintaining individuals in local communities, service delivery systems will increasingly be expected to provide support for sexual offenders diagnosed with an intellectual disability while, at the same time, main



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