

Contingent Access to Protective Equipment as a Maintaining Variable for Self-Injurious Behavior

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Introduction

A number of studies have demonstrated a relationship between self-injurious behavior and self-restraining behavior (Rooker & Roscoe, 2005; Vollmer & Vorndran, 1998; Smith, et al. 1992) indicating that a preference may exist for the self-restraint. Favell et al. (1978) demonstrated the reinforcing properties of physical restraint with several participants with self-injury. Due to this comorbidity, there is a need to assess the functional relationship. The purpose of the present study was to assess the contingent application of protective equipment in maintaining rates of self-injury. For the participant, protective equipment, which consisted of rigid arm guards, served as a tool for self-restraining behavior. Implications for function based treatments are discussed.

METHOD

Participant and Setting

The participant in the study was an 11-year-old boy, residing in a behavioral stabilization program, who exhibited high intensity self-injurious behaviors in the form of biting to arms, hands, and shoulders. Protective arm guards, which extended from his hand to his upper bicep and prevented flexion of the arm, were worn during waking hours. The participant also engaged in a variety of self-restraint behaviors, all of which involved the restriction of movement to his arms.

Procedure

Six functional analysis conditions, including those conducted by Iwata et al. (1982/1994) were conducted in a multielement design. These conditions included demand, attention, toy play, tangible, modified alone, and an access to restraint condition. During all conditions except the access to restraint condition, the arm guards were worn continuously. During the access to restraint condition one of the arm guards was removed completely and contingent upon an attempt or successful self-injurious behavior, the arm guard was reapplied for 30 seconds. During the modified alone sessions the therapist stood behind the participant to block biting behavior and did not provide attention or escape from demands. Sessions lasted 10 minutes and were conducted in a 3 m x 3 m session room within the participant's residence.

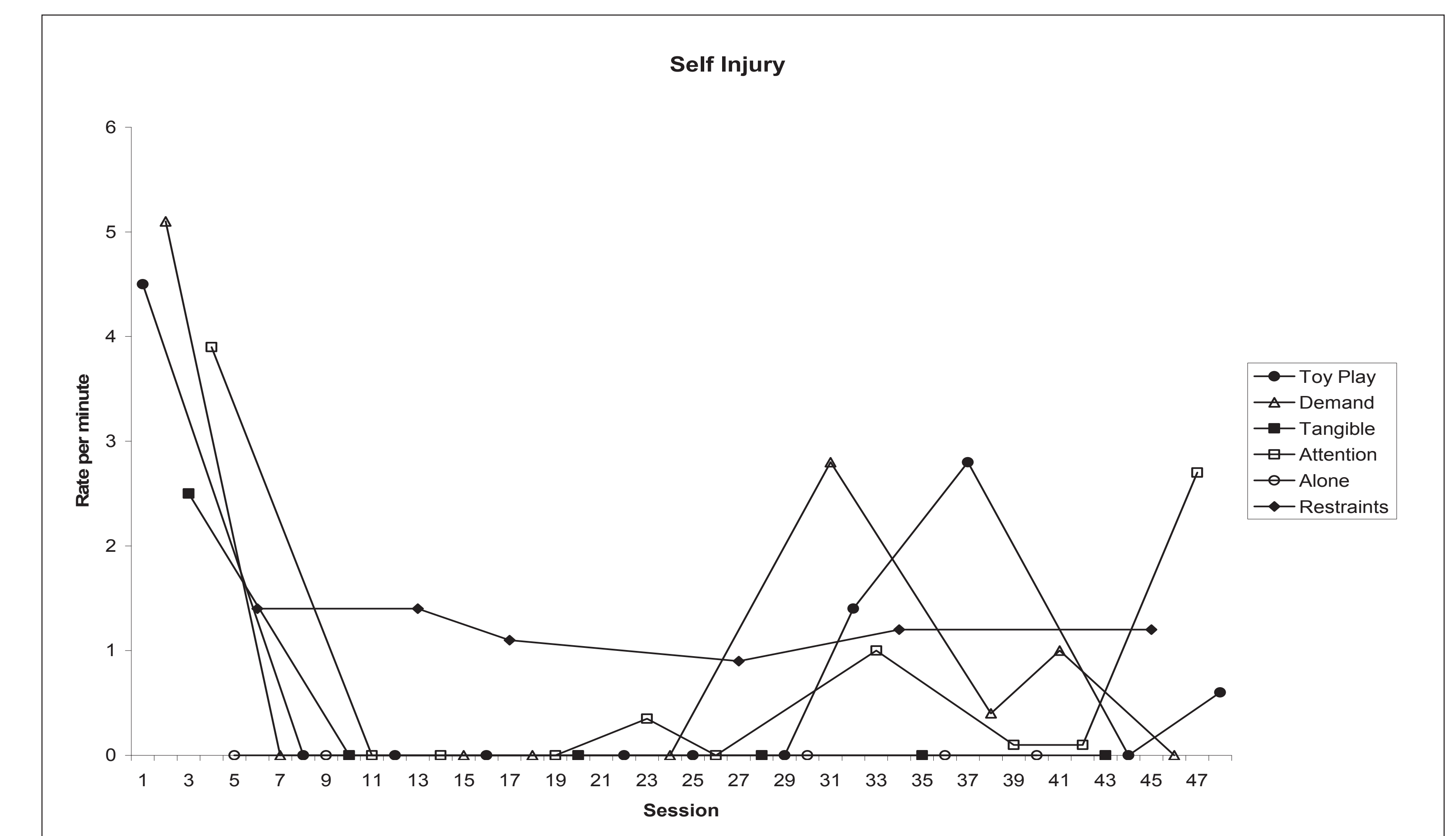
RESULTS AND DISCUSSION

Results indicate consistent, elevated rates of self-injurious behavior in the access to restraint condition when compared to rates across other conditions. Without the utilization of the additional condition of tangible access to restraints, rates of responding appear variable and inconsistent, with no clear function evident. These results highlight the importance of the systematic evaluation or functional assessment of this comorbid phenomenon.

Several studies have demonstrated effective procedures utilizing self-restraint or self-confining to reduce self-injury when access to self-restraining behaviors is found to be a maintaining variable. Vollmer and Vorndran (1998) used self-restraint as reinforcement for functional communication training, which involved extinction of SIB. Favell et al. (1978), and Foxx and Dunfrense (1984) utilized stimulus fading and transfer by size and time in restraints. Kerth et al. (2009) utilized non contingent access to various articles of clothing as a socially acceptable and functional form of self-restraint to reduce rates of self-injury with a participant in which self-restraint

was incompatible with self-injury. Procedures such as these have been effective in reducing self-injury and self-restraint behaviors.

Limitations of this study include the ethical and safety issues surrounding the assessment of intense and destructive self-injurious behaviors. Several of the conditions in the study required modifications which may have produced confounding effects, however due to the nature of the participant's self-injury, protective measures were required.



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