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# Effects of Snoezelen room, Activities of Daily Living skills training, and Vocational skills training on aggression and self-injury by adults with mental retardation and mental illness

Nirbhay N. Singh<sup>a,\*</sup>, Giulio E. Lancioni<sup>b</sup>, Alan S.W. Winton<sup>c</sup>,  
Enrique J. Molina<sup>d</sup>, Monica Sage<sup>e</sup>, Stephen Brown<sup>f</sup>,  
Jop Groeneweg<sup>g</sup>

<sup>a</sup>ONE Research Institute, P.O. Box 5419, Midlothian, VA 23112, USA

<sup>b</sup>University of Bari, Bari, Italy

<sup>c</sup>Massey University, Palmerston North, New Zealand

<sup>d</sup>Community of Landmark, Opa Locka, FL, USA

<sup>e</sup>University of Florida, Gainesville, FL, USA

<sup>f</sup>Metropolitan State Hospital, Norwalk, CA, USA

<sup>g</sup>University of Leiden, Leiden, The Netherlands

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## Abstract

Multi-sensory stimulation provided in a Snoezelen room is being used increasingly for individuals with mental retardation and mental illness to facilitate relaxation, provide enjoyment, and inhibit behavioral challenges. We observed aggressive and self-injurious behavior in three groups of 15 individuals with severe or profound mental retardation and mental illness before, during, and after being in a Snoezelen room. All participants were receiving psychotropic medication for their mental illness and function-derived behavioral interventions for aggression, self-injury, or both. Using a repeated measures counterbalanced design, each group of participants was rotated through three experimental conditions: Activities of Daily Living (ADL) skills training, Snoezelen, and Vocational skills training. All other treatment and training activities specified in each individual's person-centered plan were continued during the 10-week observational period. Both aggression and self-injury were lowest when the individuals were in a Snoezelen room,

\* Corresponding author. Tel.: +1-804-743-3121; fax: +1-804-743-3448.

E-mail address: [nirbsingh52@aol.com](mailto:nirbsingh52@aol.com) (N.N. Singh).

followed by Vocational skills training and ADL skills training. The levels in the Snoezelen room were significantly lower than in both the other conditions for aggression but only in ADL skills training for self-injury. The difference in levels before and after Snoezelen were statistically significant with self-injury but not with aggression. The order of conditions showed no significant effect on either behavior. Snoezelen may provide an effective context for reducing the occurrence of self-injury and aggression.

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**Keywords:** ADL skills training; Vocational skills training; aggression; self-injury

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## 1. Introduction

Snoezelen rooms are multi-sensory environments that are often used to improve the behavior and quality of life of individuals with mental retardation and mental illness (Hogg, Cavet, Lambe, & Smeddle, 2001; Lancioni, Cuvo, & O'Reilly, 2002; Stephenson, 2002). Typically, they provide various technical and instrumental resources that offer multiple stimulation opportunities, in separate rooms or different areas of a large room. The stimulation is believed to promote a sense of enjoyment and a relief from tension and pressure, with consequent improvement in general behavior (Haggar & Hutchinson, 1991; Lindsay, Black, Broxholme, Pitcaithly, & Hornsby, 2001; Mount & Cavet, 1995; Pagliano, 1999). Interest in and acceptance of this type of approach has increased during the last decade. It is not surprising that staff who work with individuals with severe or profound mental retardation accept this approach, given the difficulties encountered in improving the overall quality of life of these individuals and the widely-held notion that Snoezelen is a highly pleasurable and humane environment that could be very beneficial for them (Lancioni et al., 2002; Matson, Bamburg, & Smalls, 2004; Stephenson, 2002).

The growing interest and acceptance of Snoezelen rooms have been accompanied by a number of research efforts to formally assess their effects. In two recent literature reviews, 14 studies were identified that assessed the effects of Snoezelen rooms on the behavior of individuals with developmental disabilities (Hogg et al., 2001; Lancioni et al., 2002). A number of these studies reported positive effects on socially adaptive and maladaptive behavior of the participants while they were in the Snoezelen room (e.g., Cuvo, May, & Post, 2001; Fagny, 2000; Kenyon & Hong, 1998; Shapiro, Parush, Green, & Roth, 1997), but carryover of these positive effects to other settings was limited (Ashby, Lindsay, Pitcaithly, Broxholme, & Geelen, 1995; Cuvo et al., 2001; Houghton et al., 1998; Lindsay et al., 1997).

In two recent controlled studies, Cuvo et al. (2001) evaluated the effects of a Snoezelen room on stereotypy and positive engagement by three adults with profound mental retardation. In the first study, stereotypy and engagement of the individuals were observed in their living room before and after being in the Snoezelen room. Although the individuals' stereotypy decreased and engagement increased while in the Snoezelen room, these effects were not maintained in their

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