

# Education Update:

## Snuffing out cigarette pica: what method is most effective?

Cigarette pica (the eating of cigarette products) is a surprisingly common behavior in people with developmental disabilities, with one study of 991 institutionalized individuals revealing that 9 percent ate unsmoked cigarettes, cigarette butts, or other tobacco products. Individuals who practice cigarette pica can experience toxic reactions or even intestinal blockage, and are at risk of picking up communicable diseases if they eat other people's discarded cigarette butts.

Han-Leong Goh and colleagues studied four severely or profoundly retarded adults who exhibited high levels of cigarette pica. After determining which type of cigarette each subject preferred (for instance, unsmoked cigarettes or smoked cigarette butts), the researchers then identified edible reinforcers, such as cookies and candies, that the subjects preferred to tobacco when both were offered.

Using these preferred items, the researchers tested two behavioral interventions:

—*Noncontingent reinforcement (NCR)*. In this procedure, the preferred food was delivered on a fixed schedule (every 10 seconds) for five minutes before the start of a session. The therapist then placed a cigarette (or burnt cigarette butt) on the table, while continuing to deliver the preferred food item every ten seconds. If pica did not occur, the session ended after 300 seconds; if it did, the therapist stopped providing food after 60 seconds. Access to the preferred food was restricted between sessions. Eventually, the therapist "thinned" the rewards, offering fewer and fewer edibles.

—*Differential reinforcement of alternate behavior (DRA) plus interruption*. In this procedure, participants were taught to exchange the cigarettes they found for edible reinforcers. If the subject did not exchange the cigarette, the therapist prevented the subject from eating it by taking it away, and again prompted the subject to exchange the cigarette for food. This procedure was practiced in several different settings, with different therapists.

The researchers report that noncontingent reinforcement reduced the pica of two subjects, but the effects did not last when the reinforcement schedule was thinned. Thus, they say, "The NCR interventions were not practical," because they required near-constant reinforcement. In contrast, the DRA procedure was effective for three participants, whose levels of cigarette pica remained low in different settings with different thera-

pists. None of nine different behavior modification approaches worked with the fourth participant.

"Multicomponent assessment and treatment of cigarette pica," Han-Leong Goh, Brian A. Iwata, and SungWoo Kahng, *Journal of Applied Behavior Analysis*, Vol. 32, No. 3, Fall 1999, pp. 297-316. Address: Brian A. Iwata, Department of Psychology, University of Florida, Gainesville, FL 32611.

## Social skills training: praise for benefits, but 'don't raise false hopes'

British researchers report that social skills groups can be highly beneficial for adults with autism or Asperger's syndrome (a variant of high-functioning autism), as long as facilitators are careful not to raise false hopes about the results that group participants can achieve.

Patricia Howlin and Pamela Yates conducted a 12-session social skills group for ten adult men with autism or Asperger's syndrome. Meetings were held monthly, for about 2-1/2 hours each. Topics included:

- understanding autism
- identifying and expressing emotions
- learning conversational skills and "body language"
- learning to communicate with friends and strangers (for instance, how to initiate contact, how close to stand, and how to end conversations)
- assertiveness
- problem-solving
- job interviews
- coping with stressful situations.

Group facilitators used a variety of techniques, including role-playing, videos, games, team activities, and discussions. At each session, members discussed important events that occurred in their lives during the previous month, and real-life difficulties of the participants were used as teaching examples.

At the end of the year, Howlin and Yates say, "all of the families [who replied to a questionnaire about the program] reported improvements in their sons' conversational and social skills, and in their appearance, self-confidence, and general independence." The majority also said the program had helped their sons make decisions better, solve problems more effectively, and make or keep friends. All of the group members felt that the sessions had helped them by offering the opportunity to meet people with similar problems, and almost all felt that their communication skills, ability to relate to others, and problem-solving and decision-making abilities had improved.

The researchers note that at the beginning of the year, all but one of the group members lived at home, and only two were independently employed. By the end of the year, several had moved to less restrictive environments or obtained new jobs, and these subjects believed that attending the group had helped them make these changes. In addition, Howlin and Yates say, videotapes of participants' conversational skills at the beginning and end of the program revealed some significant improvements in these skills. However, they say, participants continued to have difficulty applying social rules correctly, and asserting themselves in social situations.

The researchers caution that one hazard of such programs is that they may teach some areas of social interaction while failing to address others. For example, they say, one participant got into trouble after a session on meeting other people, because he wandered into hospital wards in an attempt to practice his skills on the nurses.

In addition, they say, facilitators must be careful not to raise unrealistic expectations in participants. They note, "Teaching young men how to improve their conversational and social skills is no guarantee that they will then be able to find a girlfriend or establish a permanent relationship. Thus, it is imperative to make absolutely clear what the group can and cannot offer. People with autism suffer constant setbacks and disappointments throughout their lives, and it is all too easy inadvertently to raise false hopes."

Despite the limitations of social skills programs, however, Howlin and Yates say that the interventions, which are inexpensive and not time-consuming, "could play a significant role in encouraging individuals to develop more effective social strategies, which, in turn, could lead to improved integration and personal development."

"The potential effectiveness of social skills groups for adults with autism," Patricia Howlin and Pamela Yates, *Autism*, Vol. 3, No. 3, September 1999, pp. 299-307. Address: Patricia Howlin, St. George's Hospital Medical School, London, UK.

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