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The effectiveness of self-management interventions for children with autism—A literature review

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ABSTRACT

In 2009 the National Autism Center published its initial National Standards Project (NSP) report detailing a list of existing treatments for individuals with autism. Recently, the report was updated and was made available to the public in April 2015. The 2015 report divided treatments into three categories: established, emerging, and unestablished. Among the 11 treatments identified as established, self-management interventions for children with autism were included. Although self-management was found to be effective, the NSP did not evaluate the extent to which this treatment has been studied in natural settings versus clinical/laboratory and mixed settings, nor the social validity of the treatments. Having knowledge on the effectiveness of a treatment in the natural setting and its social validity can assist teachers and parents in making better decisions regarding the adoption of a treatment. The purpose of this review is to extend the NSP report by evaluating the social validity of self-management interventions for individuals with autism, evaluate the extent to which these interventions have been conducted in the natural setting (as opposed to a clinical setting), and to provide a second evaluation of the methodological quality of these studies. Results of this review suggest that, self-management interventions for children with autism are effective in natural, clinical, and mixed settings. However, few studies have provided a formal evaluation of social validity. There are also some limitations to the methodological quality of the studies that should be considered for future research.

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1. Introduction

The increased incidence of individuals diagnosed with autism in the last decade has resulted in increased evaluation of treatments offered for these individuals (National Autism Center, 2009). Metz, Mulick, and Butter (2005) reported that a Google search revealed over 65 treatments offered for individuals with autism. Along with the effective and research-based interventions identified in their search, a large proportion of the treatments found were ineffective and sometimes even harmful (e.g., injection of sheep stem cells; Metz et al., 2005).

Parents of individuals with autism continuously seek the best treatment for their child. In some cases, however, selected treatments may not always be empirically supported as being effective. Metz et al. (2005) suggest three reasons why parents choose ineffective treatments over scientifically-based interventions. First, some aspects of the disorder, such as aberrant behaviors, lack of effective communication, and deficits in social interactions can be aversive to parents. These conditions, in addition to the recommendation for early interventions, may lead parents to escape the aversive situation by abandoning the search for effective treatments in favor of the most immediate and available treatment, but not always the most effective one. Second, parents do not always have the required knowledge or support to help them to discriminate between evidence-based and fad (i.e., treatments not supported by scientific evidence) treatments. Parents receive information from a variety of sources concurrently (e.g., the media, friends, and other professionals) and may lack the relevant knowledge to effectively evaluate this information, therefore potentially selecting a non-evidence-based treatment for their child. Finally, parents may find themselves dealing with conflicting information provided by different systems with which they interact (e.g., school vs. health care professionals). Conflicting information and the competition between service providers can result in pressure being placed on the parent to select a treatment that may not be the most effective one.

In response to the increasing number of treatments for individuals with autism, along with parents' difficulties in choosing the best treatment for their child, the National Autism Center released the National Standards Report (NSR; National Autism Center, 2009). The purpose of the NSR was to (a) identify evidence-based treatments for individuals with autism (under the age of 22), (b) assist parents, caregivers, educators, and service providers in understanding the research behind these treatments, and (c) identify limitations of the current treatments for individuals with autism (National Autism Center, 2009). In 2015, the National Autism Center published a second report following a more recent review of the published literature. The purpose of the second review was to: (a) update the initial review and include papers published between the years 2007 and 2012, (b) extend the review to adults (22 years and older), (c) incorporate feedback from the initial review and provide more details on interventions identified as beneficial, and (d) assist parents, caregivers, educators, and service providers in understanding how to incorporate evidence-based intervention into an individualized program (National Autism Center, 2015).

Using a thorough and scientific review of treatments for individuals with autism, the NSR identified three types of treatments: established, emerging, and unestablished (National Autism Center, 2015). A treatment was considered established if several research articles, both group and single-subject design, using this treatment found beneficial effects and had convincing scientific evidence for its effectiveness (National Autism Center, 2009). The NSR identified 11 treatments as established for individuals with autism. Self-management interventions were included in this category, with 21 studies that support its effectiveness.

Self-management interventions are those that provide individuals with the skills to manage their own behaviors. In self-management interventions, individuals with autism learn one or more of the following skills: (a) discriminate and record the occurrence and nonoccurrence of target behaviors (i.e., self-monitoring), (b) administer consequences for their performance (i.e., reinforcing or punishing one's own behavior), (c) evaluate performance against a predetermined goal or target (i.e. self-evaluation), (d) self-administer antecedents to increase the probability for a correct performance (e.g., providing response prompts), or (e) set personal goals. For example, Pierce and Schreibman (1994) taught three children with autism to self-administer antecedents using picture prompts and to self-reinforce their performance in order to improve their daily living skills. Results of the study suggest that when taught to use the self-management techniques, children with autism can successfully manage their behavior and improve their daily living skills even without the presence of the treatment provider (Pierce & Schreibman, 1994).

Although self-management was deemed to be effective in the NSR, the NSR did not evaluate the extent to which self-management has been studied in natural settings versus clinical/laboratory or mixed settings (National Autism Center, 2009). Treatments that result in positive outcomes in the clinical setting may not ensure the same level of effectiveness in the natural setting (Lerman, 2003). Moreover, in some cases, treatments found effective in clinical settings might be unfeasible in the natural setting (e.g., response interruption; Kliebert, Tiger, & Toussaint, 2011). According to Mitchem and Young