

Preface

Pica is a rare but serious and potentially life-threatening behavior disorder which is quite difficult to treat in individuals with autism and intellectual disabilities (ID). Until recently there was little evidence to guide treatment. Rather, individuals received no treatment or tokenistic and ineffective treatment, or their problem behavior was prevented as best as could be managed by restrictive practices such as restraints, including fencing masks worn permanently, one-on-one staffing, and locked in barren environments with no treatment in place. The results of such treatments were miserable and restricted lives with no positive outcomes and continued risks to clients.

Surprisingly, there are at least four previous books on pica. Cooper (1957) presented a review of the cultural and medical literature on pica. Cooper also reported an empirical study of pica in low-income families in Baltimore in the 1950s, whose children were at risk for lead poisoning and pica, which focused mostly on environmental risk factors, such as lead paint, child nutrition, poverty, and lack of child supervision at home. This volume mentioned autism and intellectual disabilities only in passing. Bicknell (1975) published a similar book but which did focus on pica in children with autism and intellectual disabilities. Like Cooper, she too presented a descriptive longitudinal survey of the characteristics of 15 children with autism and ID and pica. The survey searched for potential psychodynamic risk factors, but could only conclude that these risk factors were heterogeneous. In some cases child development appeared typical and pica may have been the cause of developmental delay due to ingestion of lead. One notable feature of this volume is the mention in passing of the possibility of behavioral treatment, but with little data available to discuss, there was little to say about it. More recently, Young (2011) published a comprehensive review of pica mostly from a cross-cultural and nutritional perspective, making little mention of pica in individuals with autism or intellectual disabilities. This volume provided a fairly comprehensive review of the history of pica, pica in literature, and epidemiological studies in pregnant women, children, and certain cultural groups that engage in pica as part of culture-specific practices. Young also attempted to integrate this mass of

cross-cultural data into an integrated theory of pica. Finally, Conner (2013) published a brief self-help Kindle edition book on how to treat your own pica, which provides everyday advice on how to treat your own pica, but now which is not research based.

Both the authors of the present volume were involved in treatment of pica in institutional settings and were faced with the challenge of delivering effective treatment to groups of individuals almost all of whom were adults with severe and profound intellectual disabilities scattered across multiple residential settings. One of us (Don Williams) led a team that developed and evaluated a program for 41 individuals with pica over a 9-year period that addressed both reducing pica behavior and safely eliminating restraint and reducing medical risks, such as surgeries for pica.

This volume brings together the research literature and our own clinical experience in treating pica. Since the publication of Bicknell's volume on pica in individuals with autism and intellectual disabilities, behavioral research has increased apace. In the 1970s and 1980s research developed and evaluated effective procedures using only positive punishment procedures. Influenced by the work of Carr (1977) and Iwata et al. (1982/1994), the conceptual framework and related behavioral technology of functional assessment and analysis was subsequently extended to assess pica and develop function-based, ideographic behavioral treatments. In addition, a smaller quantity of research, including a small number of experiments, supports the use of dietary interventions for some individuals with predetermined nutritional deficiencies. There are a small number of uncontrolled studies of various psychotropic medications and other interventions that researchers have not yet evaluated with well-controlled studies. Thus, over the past 30 years a group of evidence-based practices has been developed that may safely reduce and perhaps eliminated pica in some individuals with autism and intellectual disabilities.

Over the past 15 years, institutional settings have reduced in number and size in many (but not all) countries and there is a greater pressure to provide education and adult services in integrated settings. Doubtless, many individuals with autism and intellectual disabilities have benefited in many ways because of these changes. Yet, geographically dispersed, multi-agency services face many significant challenges and oversight is often very weak leading to unregulated and unsafe school and adult community services that too often rely on restrictive and sometimes unsafe behavior management practices (Sturmey 2015). This review of pica identifies two major gaps in the research literature and indeed practice. First, we lack models of effective and safe treatment of pica in contemporary school and adult service settings. This is a serious gap in the literature and in services as the problem of pica remains a serious and life-threatening one in community services. Second, little is known about prevention of pica. It might not be too difficult in principle to identify individuals at risk for pica, such as infants and children with severe and profound intellectual disabilities and high rates of mouthing and other oral-stimulating behavior present over unusually extended periods of time. It would be interesting to know if generic early intervention for young children with severe and profound intellectual disabilities and autism would be effective in preventing pica merely

through promoting better skills development and increasing the range of social reinforcers available to young children or whether pica-specific interventions are needed, for example, to increase alternate adaptive behavior, increase social reinforcers, reduce potential oral, and/or feeding behavior that might precede the development of pica and reduce the reinforcement value of engaging in pica at an early age.

This book comprises three parts. The first part, *Foundational Issues*, addresses basic concepts such as definition and diagnosis, epidemiology, and theories of pica. This section includes material on pica in a wide range of populations who engage in pica, thereby providing an opportunity to examine the similarities and differences between pica in pregnant women, pica as a cultural phenomenon, pica in individuals with psychiatric disorders, and individuals with developmental disabilities. The second part, *Treatment*, focuses on treatment of pica using applied behavior analysis and individuals with ID/autism spectrum disorders (ASD). This section addresses functional assessment and analysis of pica, behavioral interventions for individuals, and a description of a group program that the second author was involved in for many years. Consideration is also given to nonbehavioral treatments, such as nutritional interventions, psychotropic medication, cognitive behavior therapy, and other treatments. The final part, *Emerging Issues*, consists of one chapter that highlights the future directions for both research and services, especially in the context of contemporary community services.

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