

Autism spectrum disorder (ASD) is a neurodevelopmental disorder associated with significant deficits in adaptive behavior and everyday functioning, which challenges families, service providers, staff, and multidisciplinary professionals. If effective treatments and services are unavailable, significant changes in functioning among persons with ASD are often minimal, caregiver may continue to experience stress and economic hardship, and society will continue to play for expensive yet ineffective services.

Research

Authors



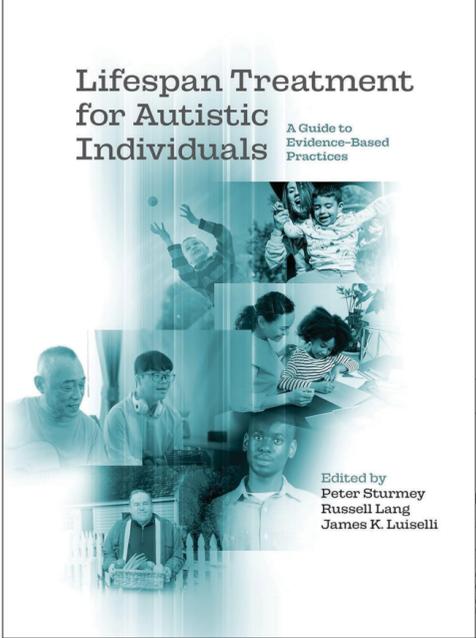
James K. Luiselli, Ed.D., ABPP, BCBA-D
Book editor



Haley Steinhauser, Ph.D, LABA, BCBA-D
Chapter: Response Interruption and Redirection



Mary Jane Weiss, Ph.D., BCBA-D, LABA
Chapter: Discrete Trial Teaching



Lifespan Treatment for Autistic Individuals
A Guide to Evidence-Based Practices

Edited by
Peter Sturmey
Russell Lang
James K. Luiselli

Autism Spectrum

Upon receiving an autism spectrum disorder (ASD) diagnosis, many families will begin an extended and emotionally challenging search for effective interventions. The journey can be a rollercoaster ride of undelivered promises, false leads, and frustrations. The first third of Catherine Maurice's classic book, *Let Me Hear Your Voice*, describes a family's search for how to find effective help for their daughter with ASD and the false prophets, professional egos, and ineffective treatments with little reliable guidance for the family or professionals to discriminate what from the chaff. New professional and paraprofessional staff in early intervention, education, and adult services face similar challenges when they enter the field, often with little explicit guidance other than "This is what we do here." State agencies face similar questions when they have to decide which interventions and programs to fund, as do professional organizations that publish guidelines as to which therapies practitioners should and should not use. Ultimately, society invests vast resources in attempting to provide effective service options for people with ASD. Many individuals with ASD receive lifelong services, including early intervention, special education, and adult services (e.g., placement in residential services).

Cakir et al. (2020) used a cost analysis model to compare a baseline and then to estimate future costs associated with ASD in the United States. They reported that the estimated 2 million new cases of ASD identified between 1990 and 2019 have had a cost of over \$7 trillion. Further, if current prevalence and service options remain unchanged, the costs could reach \$15 trillion by 2029. For an individual family, the lifelong cost associated with care and services for a family member with

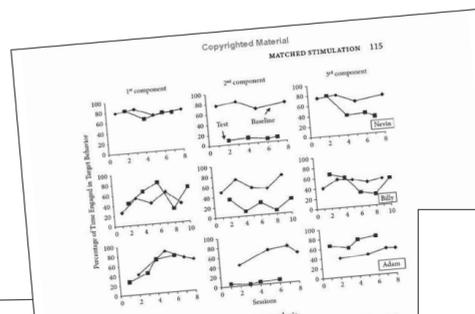


Figure 7.1 Examples of the between-sequence analysis. Note. Between-sequence analysis showing the percentage of time spent in the target behavior across three components (1st component, 2nd component, 3rd component) for three subjects (Billy, Billy, and Billy). The top row shows the percentage of time spent in the target behavior across three components (1st component, 2nd component, 3rd component) for Billy. The middle row shows the percentage of time spent in the target behavior across three components (1st component, 2nd component, 3rd component) for Billy. The bottom row shows the percentage of time spent in the target behavior across three components (1st component, 2nd component, 3rd component) for Billy.

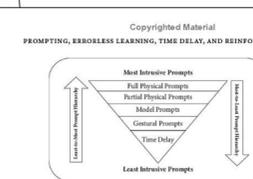


Figure 4.1 Prompt hierarchies

and those more likely to result in correct responses. Furthermore, cues help to increase the likelihood of achieving independence by reducing probability of becoming prompt dependent (Wolery). The four types of prompt hierarchies are most-to-least prompting, graduated guidance, and time delay (Wolery & Gast, 2000). Most-to-least prompting begins with the most intrusive prompt; the correct response, followed by systematic reductions in prompt support. As the learner practices the correct response with part rather than making errors, they are more likely to receive accurate responding (Libby et al., 2008).

Graduated guidance refers to another errorless learning procedure in which physical prompts are provided as needed to help the learner respond (Cooper et al., 2009). This prompting hierarchy is a chain of skills or behaviors that contain multiple steps. Examples may include teeth brushing, making a phone call, or preparing a meal. As the learner practices the correct response with part rather than making errors, they are more likely to receive accurate responding (Libby et al., 2008).

Least-to-most prompting involves beginning with the least intrusive prompt necessary to occasion the target behavior. Prompt support is then systematically adjusted depending on the learner's performance following each attempt. If the learner responds correctly, prompts are reduced. This approach may lead to more errors initially compared to the most-to-least hierarchy (Libby et al., 2008), but the learner's responses are more likely to come under control of the natural S^D rather than the prompt itself (Chastop & Walsh, 1996).

Time delay refers to the systematic application of prompt timing. Rather than changing the type of prompt (e.g., verbal to gestural), time-delay procedures alter the timing of prompt delivery (Snell & Gast, 1981). In time delay, prompts are delivered after a predetermined delay (e.g., immediately after 5 seconds, or after

Table 7.2 Quick reference guide for practitioners: Three-component multiple schedule analysis

Sequence	First	Second	Third
NI (3 or more)	• NI	• NI	• NI
	• 2 or 10 minutes	• 5 or 10 minutes	• 5 or 10 minutes
	• 10-second MTS	• 10-second MTS	• 10-second MTS
IT (3 or more)	• NI	• Intervention	• NI
	• 10 minutes each	• 10 minutes each	• 10 minutes each
	• 10-second MTS	• 10-second MTS	• 10-second MTS

Note. These guidelines apply to all age groups. Alternate between the sequences over several days. IT = Intervention; NI = no interaction; MTS = mandatory time sampling; NI = no interaction.

Figure 7.51 Datasheet for scoring target behaviors

Date:	Start and End Time:	Circle one: Primary/Secondary
DC Initials:	Session:	Sequence:
10-11	VS	MS
20-21	N	N
30-31	N	N
40-41	N	N
50-51	N	N
60-61	N	N

Problem behavior exhibited by individuals with ASD is often occasioned by deprivation from a preferred outcome (i.e., establishing operations; e.g., diverted attention; restricted access to preferred items; presentations of non preferred activities) and subsequently maintained by access to those same preferred outcomes (i.e., reinforcement).