

Assessment and Treatment of
Automatically Reinforced Self-
Injury

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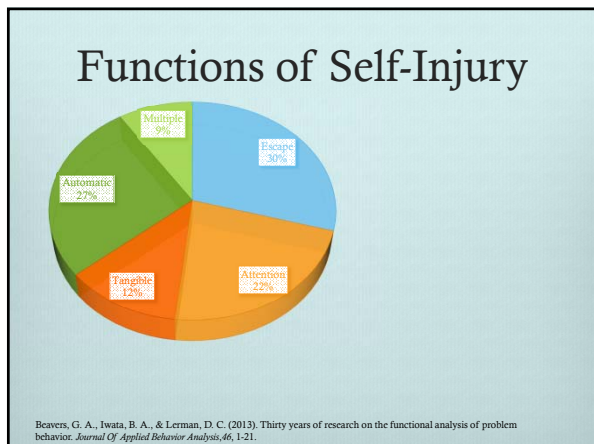
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Negative Outcomes

- ❖ Increased risk for injury
- ❖ Decreased quality of life—increased risk for:
- ❖ Care providers

Self-Injurious Behavior

- ❖ Biological variables—poorly understood
- ❖ Pain/illness (e.g., Carr & Owen-DeSchryver, 2007)
- ❖ Environmental variables



Traditional Functional Analysis

	Establishing Operation	Reinforcing Consequence
Attention	Attention deprivation	Attention delivery
Demand	Presentation of requests	Escape
Tangible	Removal of preferred items/activities	Tangible delivery
Alone	Absence of social or tangible stimulation	None programmed
Control		None programmed

Iwata, B. A., Dorsey, M. F., Slifer, K. J., Bauman, K. E., & Richman, G. S. (1982/1994). Toward a functional analysis of self-injury. *Journal of applied behavior analysis*, 27, 197-209

Abbreviated FA

- ❖ Standard functional analysis
 - ❖ 2 alone for every socially-mediated test condition
 - ❖ Conduct at least three per condition

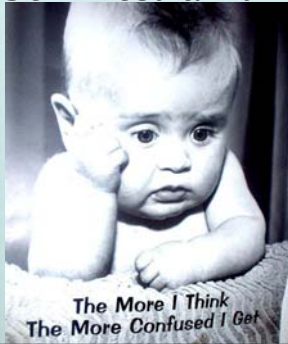
SIB and Self-Restraint

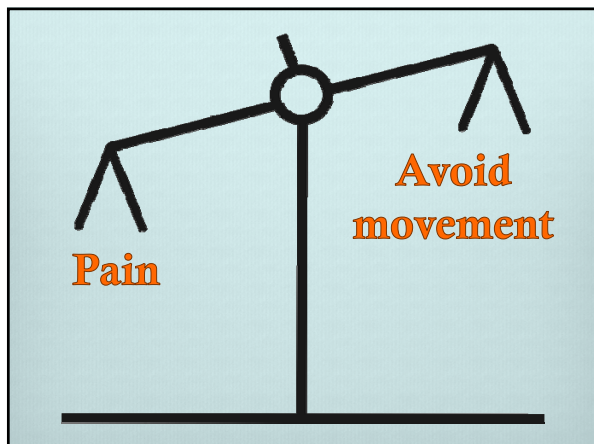


Self-Restraint is socially mediated

- ❖ Same or different response class as SIB
- ❖ Functional analysis

Termination of SIB is Sr- for Self-Restraint





Self-Restraint In Functional Analysis

- ❖ Same response class
 - ❖ No consequence for self-restraint—functionally extinction
 - ❖ Self-restraint should decrease
- ❖ Different response class
 - ❖ No consequence for self-restraint—functionally extinction
 - ❖ Self-restraint should decrease

Self-Restraint In Functional Analysis

- ❖ Same response class
- ❖ Different response class
- ❖ SIB maintained by access to self restraint
- ❖ Self-restraint maintained via Sr
 - ❖ Compare responding across two conditions
 - ❖ free-operant paradigm
 - ❖ Restricted operant paradigm

Self-Restraint In Functional Analysis

- ❖ Same response class
- ❖ Different response class
- ❖ SIB maintained by access to self restraint
- ❖ Self-restraint maintained via Sr-
 - ❖ Compare SIB
 - ❖ free-operant paradigm
 - ❖ Restricted operant paradigm
 - ❖ Block SIB (abolishing operation)

Assessment-Treatment Link

- ❖ Socially-mediated problem behavior

Manipulate motivating operations

Functional Communication Training

Alter discriminative stimuli

Remove/alter contingencies for problem behavior

Arrange reinforcement contingencies

Assessment-Treatment Link

- ❖ Socially-mediated problem behavior—clear link
- ❖ Automatic reinforcement

Environmental enrichment

Differential reinforcement

"Noncontingent" reinforcement

Response interruption

Sensory extinction

Response prevention/blocking

Protective equipment

Punishment

Contingent restraint

Subtypes of Automatically-Reinforced SIB

- ❖ SIB occurs most often when no stimulation is available
- ❖ SIB occurs across varying levels of stimulation
- ❖ Self-restraint occurs

Hagopian, L., Rooker, G., & Zarcone, J. (2015). Delineating subtypes of self-injurious behavior maintained by automatic reinforcement. *Journal of Applied Behavior Analysis, 48*, 523-543.

SIB Sensitive to Environmental Stimulation

- ❖ Environmental enrichment
- ❖ “Noncontingent reinforcement”
- ❖ Differential reinforcement

Use of Reinforcement-Based Intervention

1. Competing Items Assessment

SIB Sensitive to Environmental Stimulation

- ❖ Environmental enrichment
- ❖ “Noncontingent reinforcement”
- ❖ Differential reinforcement

Use of Reinforcement-Based Intervention

1. Competing Items Assessment
2. Identify training context
3. Develop a plan for schedule thinning

SIB Sensitive to Environmental Stimulation

- ❖ Response blocking
- ❖ Response-reduction procedures
 - ❖ Hands-down
 - ❖ Contingent protective equipment
 - ❖ Response cost

Use of Additional Components

1. Evaluate efficacy
2. Embed within a reinforcement-based intervention
3. Develop a plan for fading

SIB Insensitive to Environmental Stimulation



- ❖ Response blocking
- ❖ Sensory extinction

SIB Insensitive to Environmental Stimulation

- ❖ Response blocking
- ❖ Sensory extinction
- ❖ Punishment
- ❖ Restraint/protective equipment

SIB Insensitive to Environmental Stimulation

- ❖ Response blocking
- ❖ Punishment
- ❖ Restraint/protective equipment
 - ❖ Prevent SIB
 - ❖ Minimize reinforcement
 - ❖ Can be faded

Intervention	Considerations
Environmental Enrichment	<ul style="list-style-type: none"> • CSA conducted • Feasible
NCR, DRI, DRO	<ul style="list-style-type: none"> • Preference assessment conducted
Response Blocking	<ul style="list-style-type: none"> • Is blocking feasible? • Collateral behaviors—can they be managed?
Sensory Extinction	<ul style="list-style-type: none"> • Is it possible and feasible? • Is fading an option?
Punishment	<ul style="list-style-type: none"> • Have nonaversive options been tried? • Ethical guidelines, consumer choice • Is an option available?
Contingent Restraint	<ul style="list-style-type: none"> • Timing—after EACH instance • Is this feasible?
