



Multi-Element Positive Behavior Support (PBS): Moving Beyond A-B-C

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Introduction

- The Institute for Applied Behavior Analysis
- Some comments on the use of language

PBS is ABA in support of people with challenging behavior



PBS Outcomes

- Speed and Degree: over time and within an episode
- Durability
- Generalization
- Side Effects
- Social Validity
- Clinical Validity

Baer, Wolf & Risley, 1968; Favell et al., 1982; LaVigna & Willis, 2005; Wolf, 1978



Applied Behavior Analysis in Support of Valued, i.e., Clinically Valid, Outcomes

- Community presence and participation, in ways that are age appropriate and valued by society
- Autonomy and self determination, through the exercise of increasingly informed choice
- Continuous involvement in the ongoing process of becoming
- Increasing independence and productivity, to the point of economic self sufficiency
- The opportunity to develop a full range of social relationships and friendships

O'Brien & O'Brien, 1991



Ethical Premise

BACB (The Behavior Analysis Certification Board): *The behavior analyst recommends reinforcement rather than punishment whenever possible.*

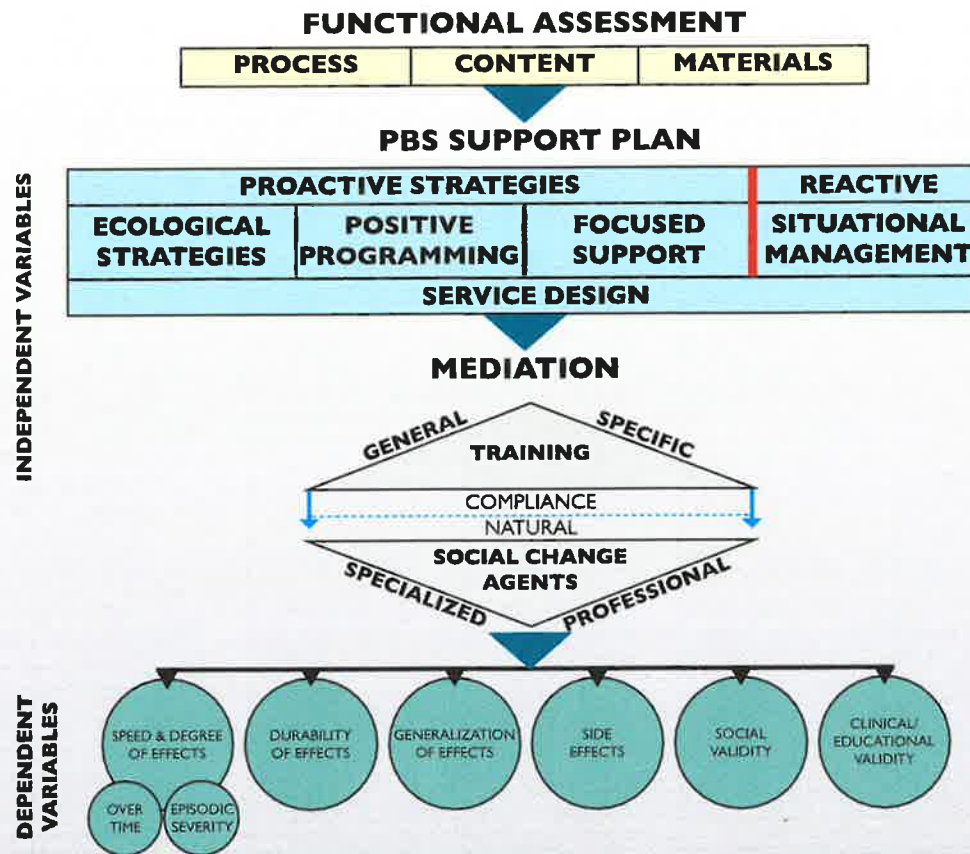
Summary of Studies Included

LaVigna, G. W. & Willis, T. J. (2012).
 The efficacy of positive behavioral support with the most challenging behavior: The evidence and its implications. *Journal of Intellectual and Developmental Disability*

X = Relevant Studies

PBS Outcomes Studies	# of Cases	Severity	Rate	Specialist	Cost	Institution
<u>Donnellan, et al., 1985</u> : 16 Type 3 PBS case studies with project funded to prevent institutionalization.	16	X	X	-	X	X
<u>Berkman & Meyer, 1988</u> : On more Type 3 case study starting with ineffective restrictive/punitive plan in an institution and ending with effective PBS plan in the community. Serious self-injury.	1	X	X	-	-	X
<u>LaVigna, et al., 1989</u> : Another Type 3 PBS case study with man for whom effects of overcorrection did not last. PBS plan was effective. 20-year-follow up data presented showing lasting results. Serious physical aggression.	1	X	-	-	-	-
<u>LaVigna & Willis, 1992</u> : Another Type 3 PBS case study in which punishment had been tried and failed. Serious self-injury.	1	X	X	-	-	-
<u>Hudson, et al. 1995 a & b</u> : Two reports covering 124 Type 3 PBS case studies of state-wide Behaviour Intervention Support Teams in Victoria, Australia.	124	X	X	X	X	X
<u>Rothwell, et al., 1999</u> : Another Type 3 PBS case study in institutional setting. Traumatic Brain Injury.	2	X	-	-	-	X
<u>Willis & LaVigna, 2003</u> : Another Type 3 PBS case study. In community setting. Traumatic Brain Injury.	1	X	-	-	-	X
<u>McClellan, et al., 2005</u> : 138 Type 3 PBS case studies in a non-governmental agency in Ireland with assessment, planning and intervention carried out by direct service staff.	138	X	X	X	X	X
<u>Grey & McClellan, 2007</u> : Control group comparison PBS study in Ireland with 30 people in each group.	60	X	X	X	X	X
<u>McClellan, et al., 2007</u> : Multiple baseline across subjects PBS study in Ireland involving 5 individuals.	5	X	X	X	-	X
<u>Hassiotis, et al., 2009</u> : Control group comparison study in the UK with 31 people receiving PBS.	63	X	X	X	X	X
<u>MacDonald, et al., 2010</u> : Type 3 PBS case study in Scotland with formal measures of episodic severity for self-injury and physical aggression.	1	X	X	-	-	-
Total Number of Cases	413					

A Model for Breaking the Barriers to Social & Community Inclusion: Multi-Element Behavior Support (MEBS)





Removing the Barriers

- Occurrence
- Episodic Severity: A quantified measure of the intensity or gravity of a behavioral incident

LaVigna & Willis, 2005/www.IABA.com



Episodic Severity

Measures could include

- Duration
- Cost of repair and replacement
- Degree of harm or injury
- Topography
- Severity ratings based on categories or scales

Of each occurrence



A comparison of episodic severity vs. usual measures

Target Behavior	Baseline	Intervention
<u>Outbursts</u>		
<u>Usual Measures</u>		
Frequency	10 per Week	2 per Week *
Duration	10 Hours per Week	4 – Hours per Week *

* Improvement

A comparison of episodic severity vs. usual measures

Target Behavior	Baseline	Intervention
<u>Outbursts</u>		
<u>Usual Measures</u>		
Frequency	10 per Week	2 per Week *
Duration	10 Hours per Week	4 Hours per Week *
<u>Episodic Severity</u>		
Avg. Duration	1 Hour per Episode	2 Hours per Episode **

* Improvement ** **No Improvement**



Episodic Severity

Measures could include

- Duration
- Cost of repair and replacement
- Degree of harm or injury
- Topography
- Severity ratings based on categories or scales

Of each incident



ABA had not identified
episodic severity
as a dependent variable



Since ABA had not looked at episodic severity as a dependent variable, those working in the field of challenging behavior have had to look elsewhere for reactive strategies

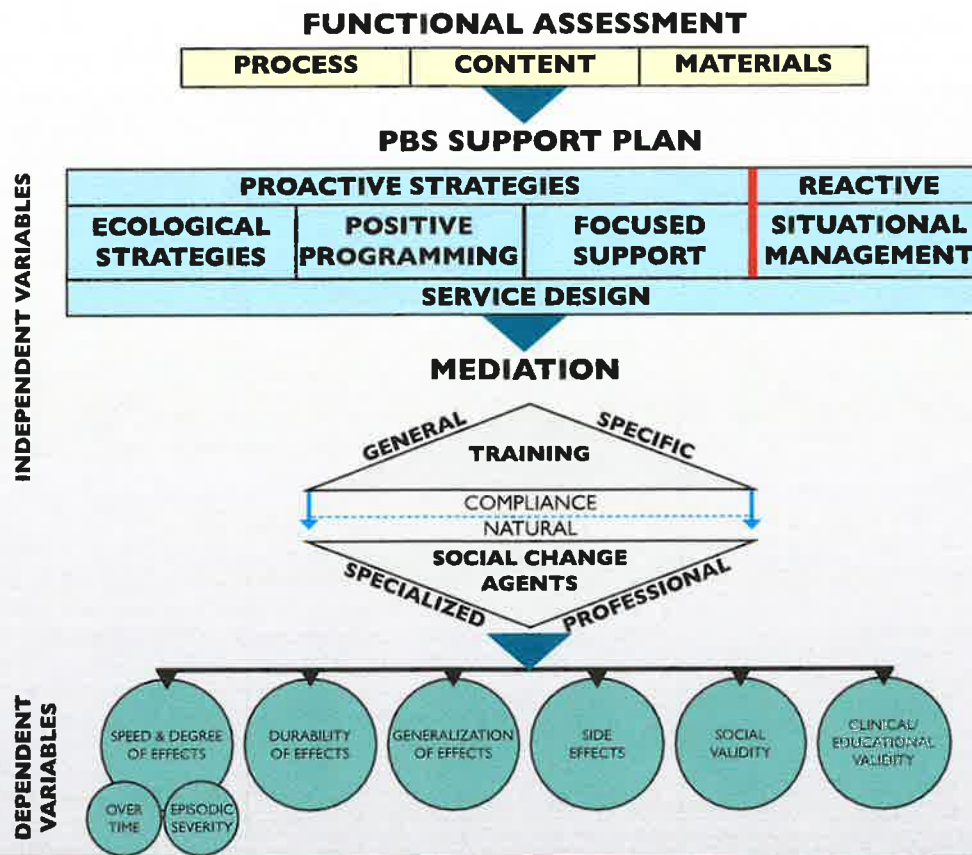


Reactive Strategy

- The function of a reactive strategy is to reduce or minimize episodic severity

We believe that ABA can make a major contribution to this important area, and therefore should include reducing episodic severity as a required outcome and use effective procedures to achieve this.

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Ecological Strategies

Smoothing the Fit



Case Details

LaVigna, G.W., and Willis, T.J. (1992)

1. A young man on the autism spectrum with a hearing loss.
2. Target Behavior: SIB - striking his head or nose with his fist or against another object...
3. Previous treatment: the behaviors were initially controlled by aversive consequences, including bare-bottom smacks, water squirts, pinches, and the like. Eventually, the consequences only escalated the problem, e.g., after more than a year, he received 177 bare-bottomed smacks in just one day.



Multi-Element PBS Plan Based on Comprehensive Functional Assessment

Ecological Strategies - Smoothing the Fit:

1. Community-based group home.
2. Peer and staff fluency in sign language.
3. Interim intensive intervention.
4. Token economy.



Multi-Element PBS Plan Based on Comprehensive Functional Assessment

Positive Programming - Teaching Skills:

1. Skill training, including signed communication (“self-restraints”).
2. Differential reinforcement for doing as asked.



Multi-Element PBS Plan Based on Comprehensive Functional Assessment

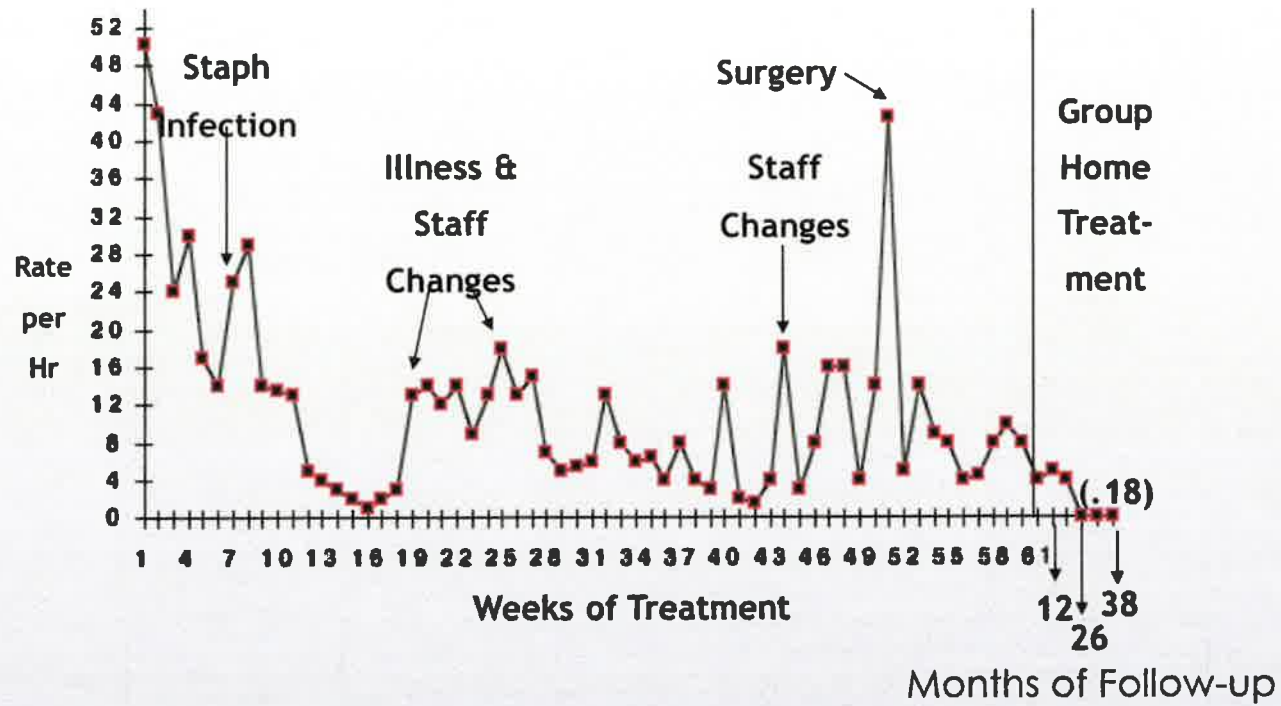
Focused Support - Prevention:

1. Antecedent control; gradually faded.
2. DRO

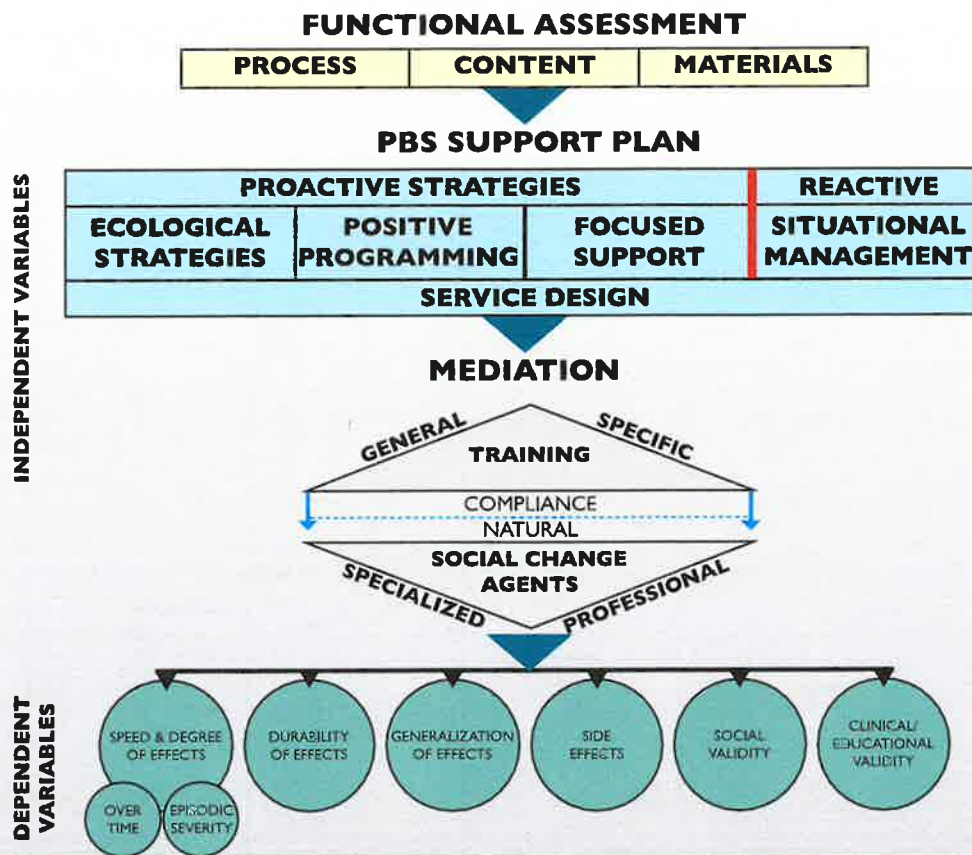
Reactive Strategies - Situational Management:

1. "No! Wrong." Physical intervention was not necessary.
2. Back-up "self-restraint."

Episodic severity was immediately minimized!!!



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Positive Programming

Teaching Skills

Longitudinal instruction designed to teach skills & competencies that facilitate behavioral change for the purposes of social integration



Instructional Objective

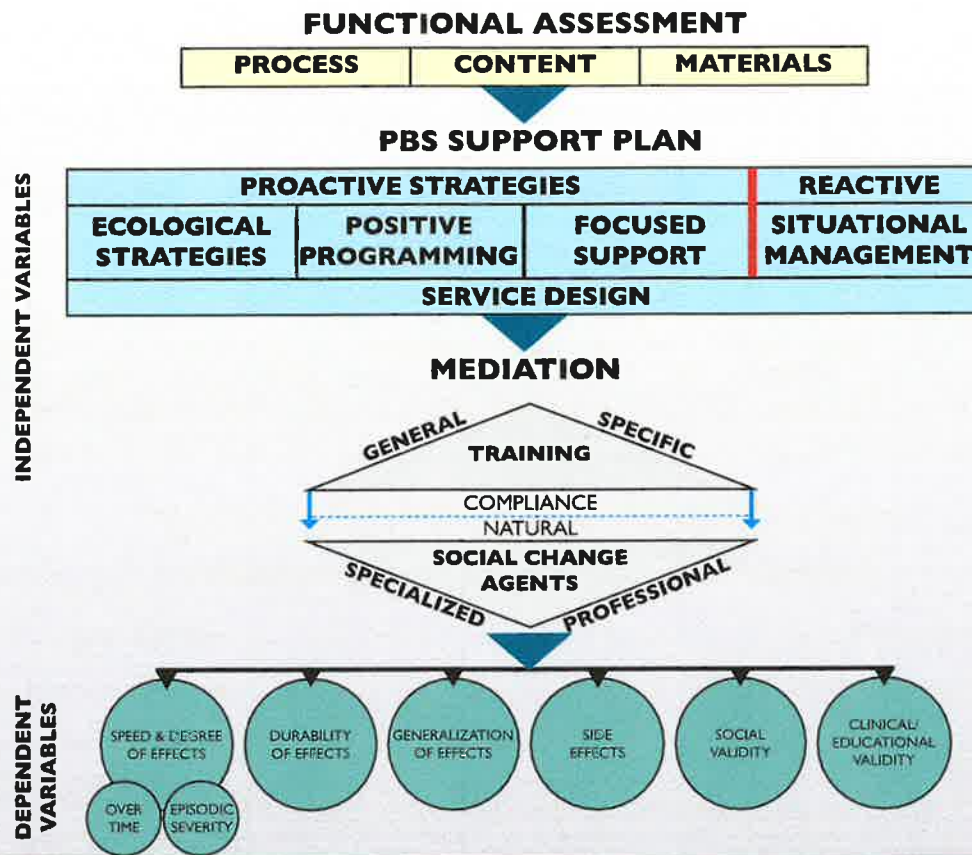
By 1/6/20, Given the necessary ingredients and cooking utensils, and when asked, Sebastian will be able to prepare a pot roast dinner, one night a week, without staff presence or participation in the kitchen. The meal will be complete, including, for example, meat, vegetables, and dessert, but can be a simple crock pot meal. Once Sebastian is able to do this, this will be an ongoing weekly responsibility.



Positive Programming - Teaching Skills

1. Life skills (both fun and necessary)
2. Functionally equivalent
3. Functionally related
4. Coping and tolerance

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Focused Support Strategies

Prevention

To reduce and, if possible, eliminate the need for a reactive strategy



Focused Support Strategies

- Preferred Events
- Antecedent Control
- Stimulus Satiation



Focused Support Strategies

Preferred Events

Time Based (may be considered an ecological strategy)

Contingency Based - Differential Reinforcement

- DRO – Other Behavior
- DROP – Other Behavior Progressive
- DRL – Low Rates
- Alt-R – Alternative Responses



Focused Support Strategies

Antecedent Control

Remove antecedents

Introduce antecedents

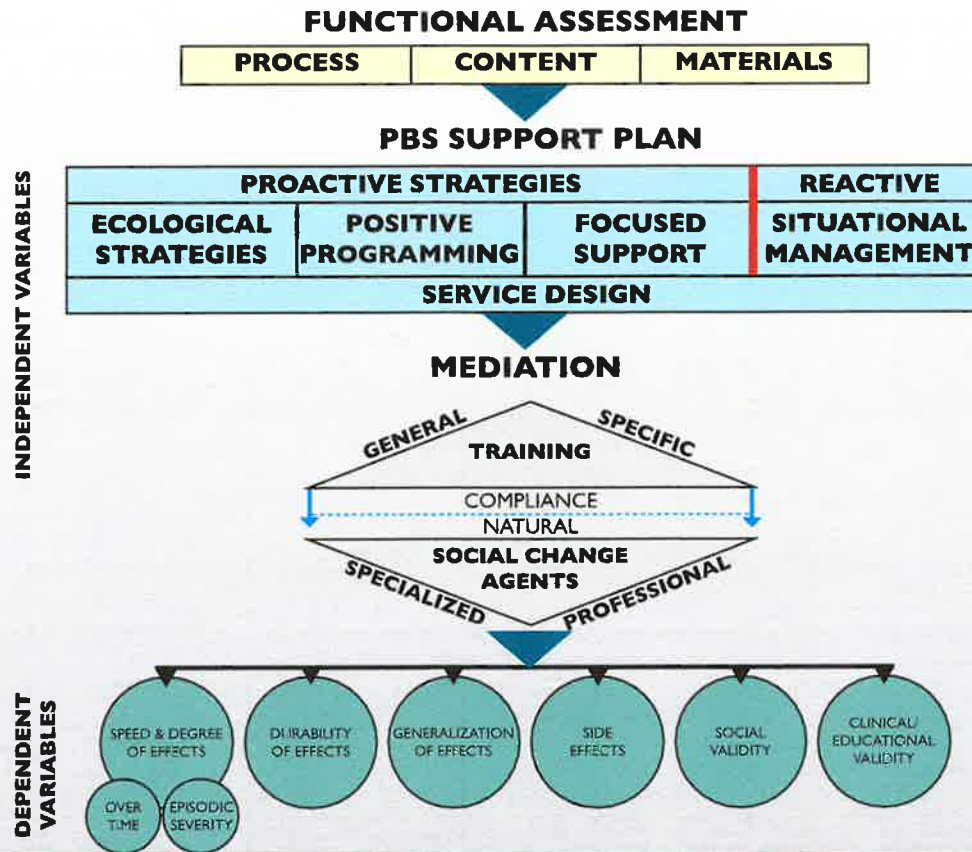
With Positive Programming



Focused Support Strategies

Stimulus Satiation

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Reactive Strategies

Situational Management

To minimize the episodic severity of a behavioral event



Reactive Strategies

Situational Management

- Ignore?
- Redirect
- Feedback
- Instruction
- Active listening
- Stimulus change
- Interpositioning
- Physical management
- Counter-intuitive



Reactive Strategies

Situational Management

Counter-intuitive

- Introduce competing contingency
- Strategic capitulation



Reactive Strategies

Example

Go Away!!!

IABA use of Restrictive Procedures

July 1, 2016 - June 30, 2017

	<u>RP 1-3* # of</u>		<u>RP 4** # of</u>	
	<u>Recipients</u>	<u>Times</u>	<u>Recipients</u>	<u>Times</u>
Adult Day Service (229)	0	0	0	0
Supported Living (81)	5	13	11	71
Child/Adolescent (173)	0	0	0	0
Crisis Response (13)	0	0	0	0
Infant Development (39)	0	0	0	0
Total (535 clients)	5	13	11	71

*RP 1-3 - Physical mgt./mechanical restraint/seclusion; **RP 4 - PRN



Guidelines

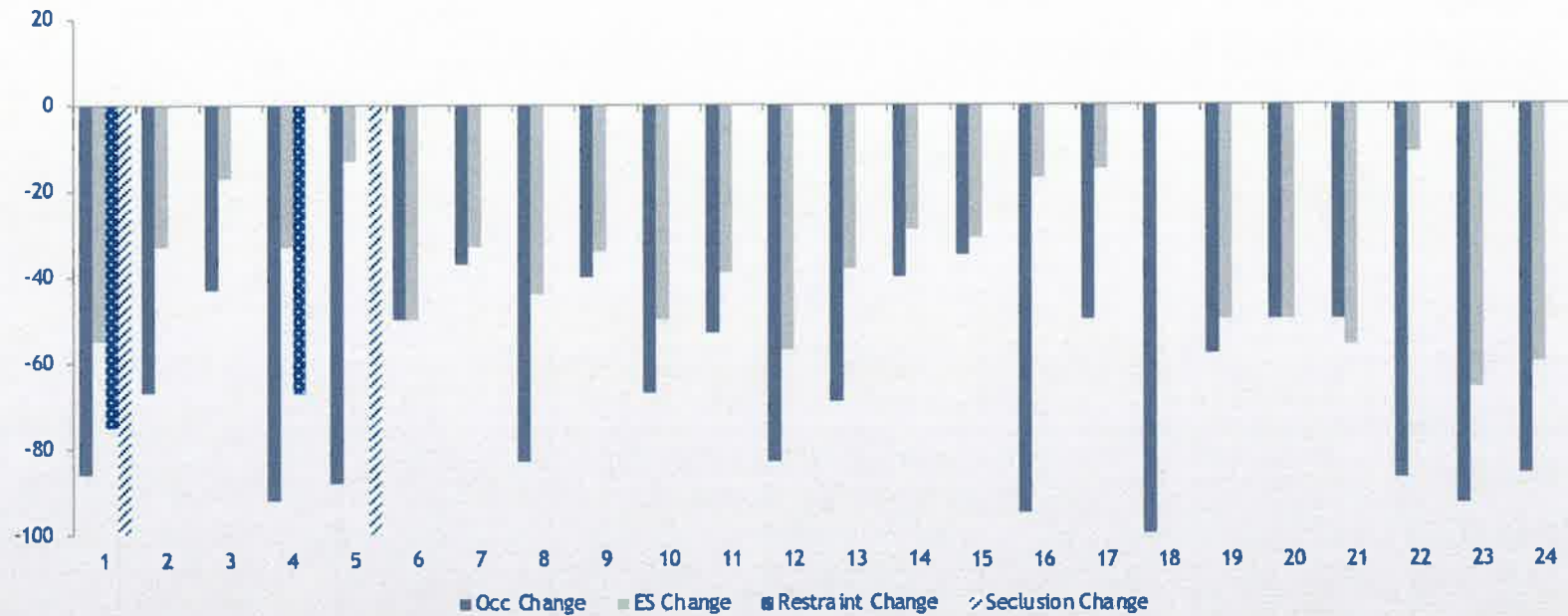
- Use early
- Provide free access to reinforcers
- Have fully developed proactive plan which, among other things, is aimed at:
 - Improving the person's overall quality of life
 - Giving the person more control over her or his life
 - Teaching the person how to communicate
 - Teaching the person how to cope
 - Reducing the need for any reactive strategies by using focused support strategies



- Design an adequate and accurate data system to measure effects on both target behavior and relevant collateral behavior
- Address social validity issues

Reactive Strategies

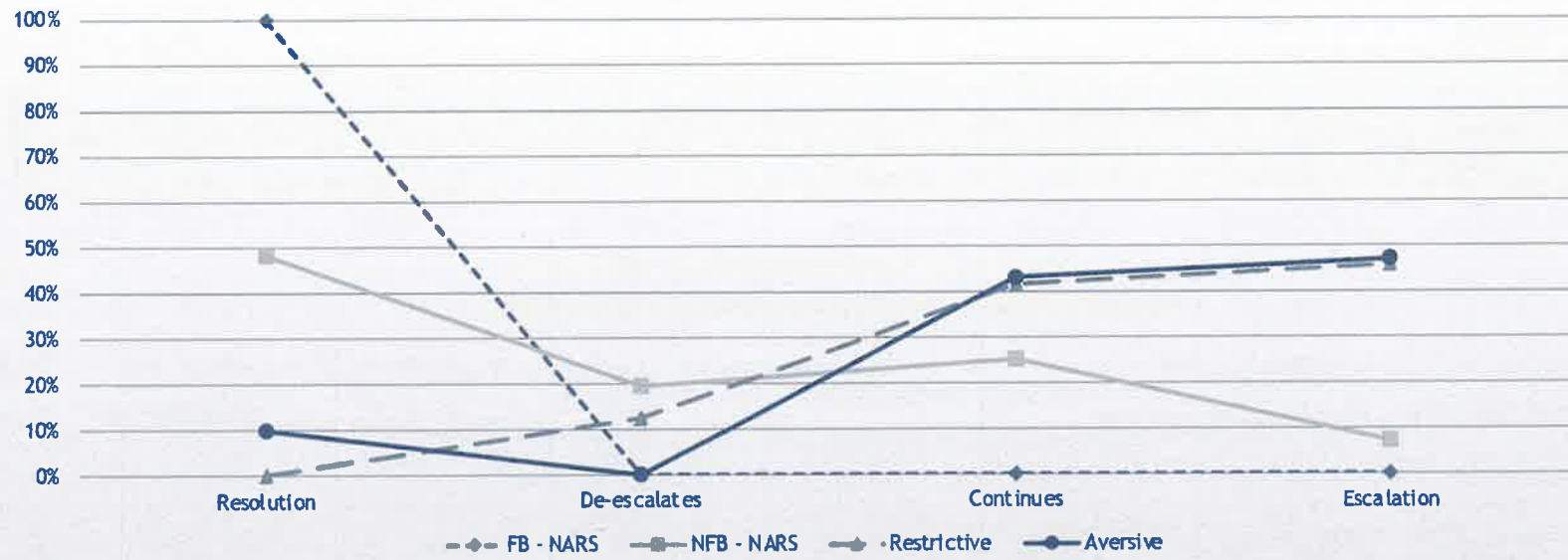
Crates & Spicer, 2016



Reactive Strategies

Spicer & Crates, 2016

Strategy Impact (All Cases)

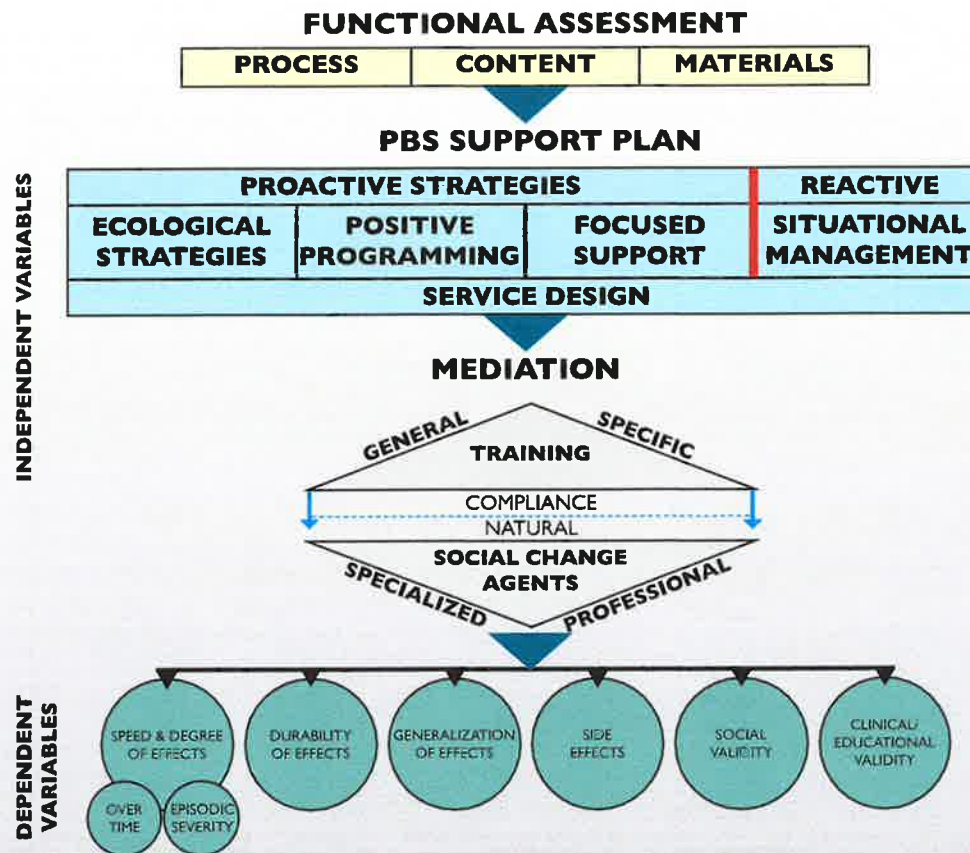




Bonus Slide

All reactive strategies can be used as antecedent control strategies when introduced in response to precursor behavior.

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Person Centered Functional Assessment

What is the meaning of the behavior?

Gathering the puzzle pieces. | Putting the puzzle together.



Comprehensive Functional Assessment

Behavior Assessment Guide

Willis, LaVigna & Donnellan, 2011

<http://iaba.com/SampleReport1.pdf>



Comprehensive Functional Assessment

- A. Referral Information
- B. Description of the Person
 - 1. Physical Characteristics
 - 2. Cognitive Abilities
 - 3. Motor/Perceptual Abilities
 - 4. Self-care Skills
 - 5. Social Skills
 - 6. Community Skills
 - 7. Domestic Skills
 - 8. Leisure/Recreation Skills



Comprehensive Functional Assessment

C. Other Background Information

1. Family History and Background
2. Living Arrangement
3. Program Placement
4. Health and Medical Issues
5. Service History

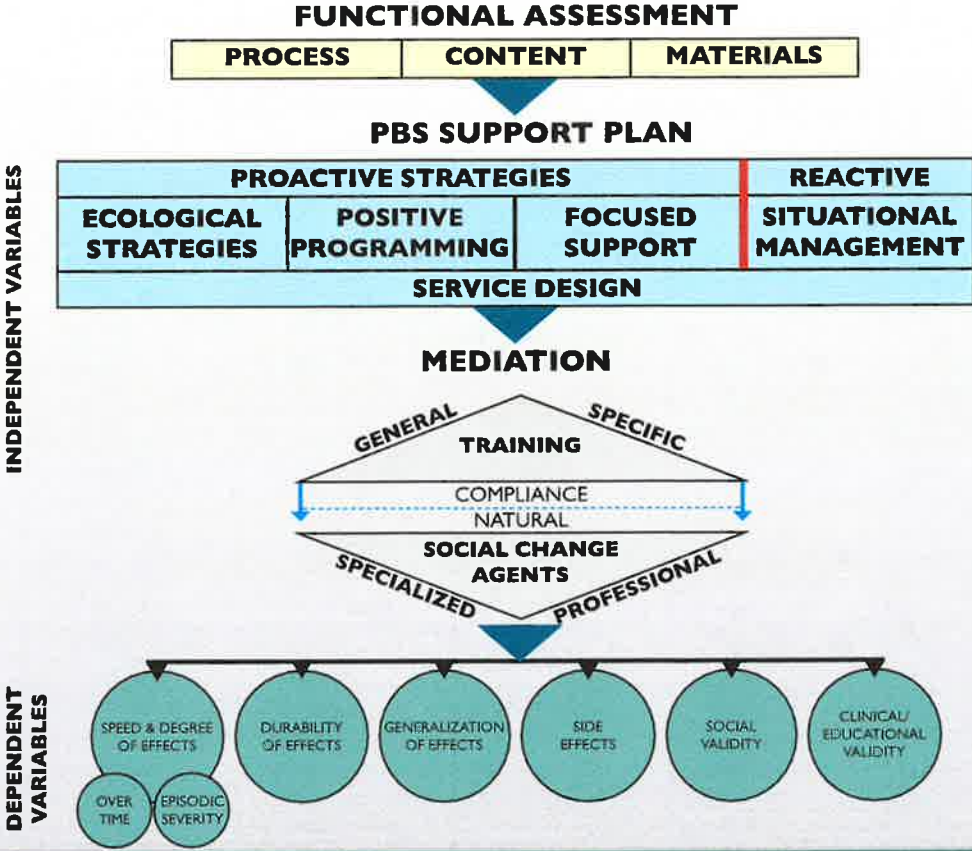
D. Mediator Analysis

E. Motivational Analysis

F. Functional Analysis of Behavior

1. Description of Problems
2. History of Problems
3. Antecedent Analysis
4. Consequence Analysis
5. Ecological Analysis
6. Impressions and Analysis of Meaning

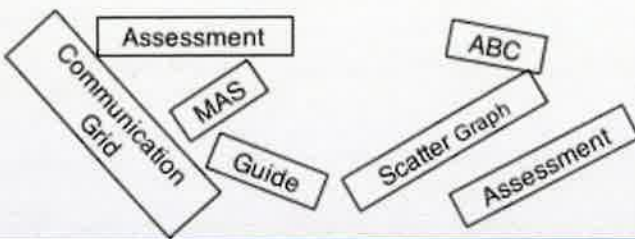
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Meditation

Organizing Behavioral Services

Services	
Service design and plan	Total quality assurance system
 <p>Assessment MAS Guide Scatter Graph ABC Assessment Communication Grid</p>	Total quality assurance system
Support Plan	
Assessment Guide IABA Comprehensive Functional Assessment Report and Recommended Support Plan	Total quality assurance system

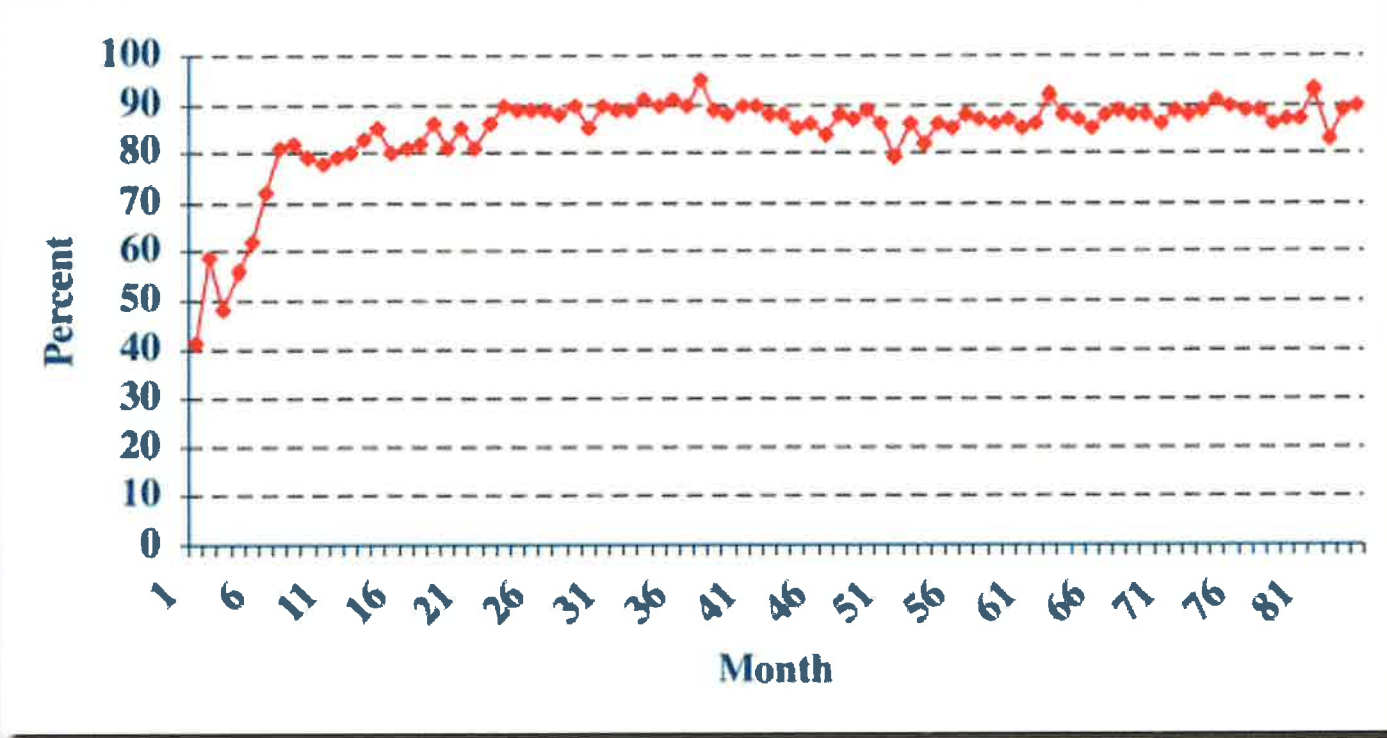


Assuring Consistency: Periodic Service Review (OBM)

- Defining performance expectations
- Staff training and development
- Performance monitoring
- Performance feedback

LaVigna et al., 1994

Visual Feedback





Periodic Service Review of PBS Plan Implementation

<<http://iaba.com/PSRImplementation.xls>>

At least one from each category

Written protocol

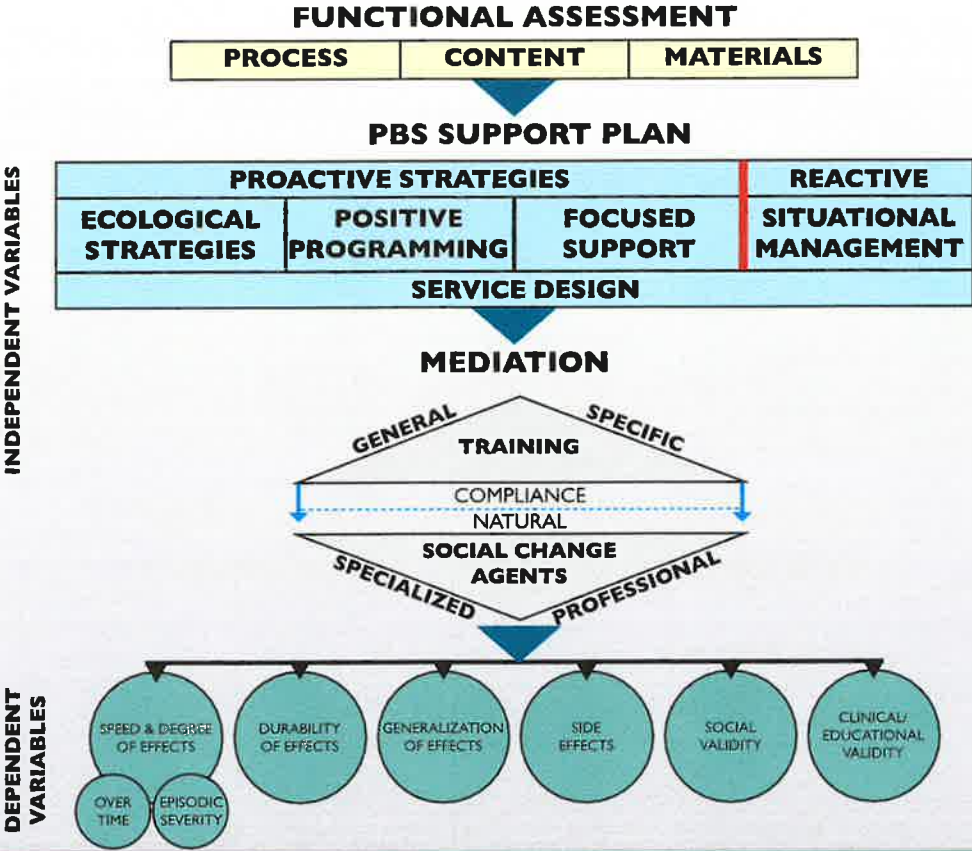
Staff training

Fidelity check

Fidelity

www.iaba.com

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Listen ...

... behavior has meaning.

Positive Practices

THE PAYOFF