Restraint Reduction Workshop

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Restraint and other restrictive behavior management practices are widely used in many contexts.

Despite calls for reducing and eliminating restraint and other restrictive procedures, little attention has been given as how to do so.

This BCBA CEU event will review the functions of restraint the person restrained and the person restraining the other.

The presentation will also review a variety of recently published applied behavior analytic approaches to reduce restraint and other restrictive behavior management practices.

These include:
- reducing the target behavior that occasions the use of restraint by using evidence-based ABA practices;
- effective staff training and supervision; and
- ABA interventions such as function-based interventions, restraint fading procedures and empirical evaluations of the most effective and least intrusive form of restraint.
What are restrictive behavior management practices?

- Physical Restraint
- Seclusion
- Locked room time out
- Chemical restraint
- Movement restriction
  - Furniture
  - Taking shoes
  - Locking doors
  - Modified handles / locks
  - Access to personal possessions
Culturally appropriate forms of restraints

- Cultural
  - Instructions with strong stimulus control
  - Stop / “No Parking” signs etc.
  - Barriers
- Children’s restraint devices
  - Strollers
  - High chairs
  - Mitts
- Medical
  - Ties, bed rails, chemical restraint
  - Dentistry
    - Mechanical
    - Chemical
  - Physical therapy
  - Constraint induced movement therapy for stroke
  - Preventing harm
- Self-restraint (Skinner, 1953)
Restrictive Behavior Management Practices and Law

- International law: UN Declaration of Human Rights
  - Mobility
  - Live in Community
- US Law
  - Fourth Amendment (Due process)
  - IDEA
    - Parallel state laws
  - Olmstead
- Professional Ethics
  - Beneficence
  - Consent
  - Honesty
  - Competency
Restrictive behavior management practices are widely used

- Assumed to be historical institutional practices
- Contemporary data show otherwise
  - Over 267,000 reported instances of restraint and seclusion
  - Approximately 163,000 instances of personal restraint
  - Approximately 7,600 instances of mechanical restraint and,
  - Approximately 104,000 instances of seclusion.
- Mostly special education
Restraints are Harmful and Undesirable

- Reduce interaction with environment
- Stigmatizing
- Physical Injury
  - Physical injuries
  - Tendon shortening & Bone demineralization
  - Lethal (Deadly restraints, Hartford Current, 1998)
- May positively or negatively reinforce target behavior
- Reduce motivation to treat target behavior
History

- Late 18th / early 19th century
  - Quakers
  - York Retreat
- Mid-nineteenth century
  - John Connoly
  - Disciples and detractors
- From optimism to pessimism
History: Twentieth Century

- 1930 - 1950 Albert Deutsch
  - US soldiers in returned in cages
- 1950’s Blatt
  - Restraint part of broader neglect and abuse
  - From no benches to some benches
- 1960’s - 2000
  - Institutional scandals
    - Cardiff
    - Christmas in Purgatory
- Deadly Restraints
Contemporary Issues

- ID Community Scandals USA
  - Multiple examples
  - Boo (1990) Washington DC
- ID Community Scandals UK
  - Cornwall
  - Winderbourne
- Europe
  - The Netherlands
  - Greece
  - Czech Republic
- US Nursing home Restraints
- US Youth Facilities
  - Rikers
Contemporary Issues (cont’d)

- UK special education
  - In defense of restraint
  - Government
  - Unions
- US Education Department Restraint data
- Unregulated & Unevaluated staff training
History and Contemporary Issues: Summary

- Restraint is not a historical issue
- Remains prevalent today in many services
- Some still justify its use
Guiding Principles

- The Welfare of the Individual Served is the Highest Priority
- Individuals (and Parents/Guardians) Have a Right to Choose
- The Principle of Least Restrictiveness
Applications

- Standards permits use of restraint and seclusion in limited situation
- *Use of Restraint as part of a Behavior Intervention Plan*
- Use of Timeout (or in rare cases, seclusion) as part of a Behavior Intervention Plan
- The Necessity for Using Emergency Restraint and Seclusion
TASH

- Positive supports only
- Opposes all use of restraint
- Actively lobbying states to eliminate use of restraints
  - Some states now have law to limit use of restraint
  - Federal law is stalled
Effective ABA Interventions

- Reducing the target behavior that occasion the use of restraint;
- Effective staff training and supervision; and
- Applied behavior analytic interventions
  - function-based interventions
  - restraint fading procedures
  - empirical evaluations of the most effective and least intrusive form of restraint
Reducing the target behavior that occasion restraint (Sturmey & Didden, 2014)

- Function-based interventions
- Extinction
  - Combined with differential reinforcement
  - Combined with punishment
- Functional Communication Training
- Non-Contingent Reinforcement
- Antecedent interventions
  - Removing Antecedents
  - Modifying Antecedents
Effective Staff Training And Supervision

- Prevention
  - Train adaptive behavior
  - Following structured routines
  - High rates of positive reinforcement
  - High rates of choices
  - Few instructions, other aversive stimuli
- Intervention
  - Prevention
  - Consequence for alternate behavior
  - Consequence for target behavior
Behavioral Skills Training

- Components
  - Task analyze staff performance
  - Instructions
  - Modeling
  - Rehearsal
  - Feedback
- Abbreviated training
  - Modeling
  - Brief feedback only if necessary
- Programming generalization
  - Multiple exemplar training
  - Scripts and role play
- Systems of training
  - Staff curriculum
  - Pyramidal training
Marroquin, Alvero & Sturmey (2014)

- Observer effect
- Participants
  - 3 parents
  - 3 adolescents with ASD
- Selected requests associated with non-compliance
- Independent Variable
  - Observe video models of 33%, 67% and 100% correct implementation of LTM prompting
  - Task data
Function-Based Interventions

- Generally, effect sizes greater for function-based treatments
- Four main functions
- Function-based extinction
- Teach functionally equivalent communication skill
- Non-contingent reinforcement using reinforcer maintaining target behavior
Travis & Sturmey (2014)

- To reduce aggression in 3 adults with mild ID
  - Forensic setting
- Conducted FBA to identify pairs of triggers for “anger”
- Presented triggers at regular intervals throughout study in natural environment

- Intervention
  - Teach one of each pair of skills
  - Behavioral Skills Training in group
Functions of Restraint

- We cannot assume function of Restraint
- No function
- Positive reinforcement
  - Pairing with attention
  - Restraint materials
- Negative reinforcement
  - Removal of aversive stimuli
- Positive punisher
  - Effective treatment
  - Aversive (painful) stimulus
- Negative punisher
  - Loss of reinforcers
  - Time out
Use of Restraint devices as positive reinforcer

- Contingency-based procedure
- Favell et al. (1981)
  - Used reinforcer materials in DRO to treat self-injury
  - Stretch DRO interval
  - Reinforce alternate behavior
  - Restraint materials reinforced arbitrary response
- Foxx & Dufresene (1984)
  - Replication with “Harry”
Restraint Fading

- Restraint as antecedent
  - Transfer of stimulus control procedures
- Fading mechanical restraints
- Fading stays (Iwata)
- Fading air pressure restraints
- Gradual modification of mechanical restraints into clothes, watches, objects, hats etc.
Combined fading and shaping

  - Shaping other behavior using access to reinforcement materials
  - Fading mechanical restraint
  - Transfer of stimulus control
    - Clothes $\rightarrow$ objects in hands $\rightarrow$ glasses / hat
  - Long-term follow-up
- Often needs ingenuity and persistence
Empirical evaluations of most effective / least intrusive restraint.

- Iwata et al.
  - Effects of # restraint stays on
  - SIB and reaching
- LeBlanc et al. (1997) Pica
  - Effects of restraint on
    - Pica and reaching
Case Study

- Mario is a 38 year-old man with mild intellectual disabilities and high functioning autism. He lives in a group home with 5 other men with developmental disabilities. He has enjoyed a part time job washing dishes and enjoys the money, his workmates and job coach.
- Three months ago he was transferred to a full time job. He disliked it because it was too noisy and too demanding. His parents asked him to be transferred back to his old job, but the job coach and community services refused to do this, saying there was no more openings for him.
- After several days of escalating complaints and eventually threats from Mario, he was fired when he threw dishes at his workmates and supervisors.
- When he returned home he was severely agitated was restrained three times that night and eventually given PRN ativan to calm him.
- Over the last 3 months he has remained on the home with little to do. He is often agitated by the mention of work. When his peers return they tease him and this results in verbal altercations and 3 more restraints in the past month, all at the weekend.
- Describe
  - your immediate and medium term treatment goals
  - His case manager wants Mario transferred to a service that will “better meet his needs” because of the danger to others. Do you agree?
  - What assessments you would conduct and how you would conduct them
Service-Wide Restraint Reduction

- Not individuals, but groups / organizations
- Long history
  - Connolly (1857)
- Restraints distributed very unevenly
  - Specific people
  - Specific times
  - Specific Antecedents
  - Specific service units
- Often associated with
  - Program problems
  - Staffing / supervision problems
- Staff often have
  - no clear guidelines
  - No alternatives
Finn & Sturmey (2009)
Service-Wide Restraint Elimination

- Many highly successful examples showing large-scale, long-term reduction / elimination of service-wide restraint
- Reported for over 200 years
- Many different types of agencies, populations, contexts
  - Institutions, educational and community services
  - Psychiatry, geriatrics, youth, medical, disabilities
- Often highlights organizational weaknesses
  - Staffing
  - Staff training
  - Supervision
  - Management
Williams et al. (2009). Pica unit

- Pica
  - Life threatening
  - Relatively rare and difficult problem
  - Few know how to treat it
- Comprehensive management or environment and behavioral treatment
  - Individualized plans
  - Functional assessment and modified functional analyses using baited items
  - Hierarchical interventions
  - Teaching replacement behaviors
  - Discrimination training
  - Environmental restructuring (rubber gloves etc.)
- 9 years
- N = 41 individuals
- Results
  - Pica-related surgeries eliminated
    - 9 during 9 years prior to intervention
  - 85% of experienced 75-100% reduction in pica
  - 16 still had restrictive / positive punishment procedures
  - All continuous mechanical restraint eliminated
Iwata et al. (2009)
Prader Willi Community Service

- N = 34
- Community agency for 90 adolescents and adults
- Non-exclusionary time out
  - released for 5 consecutive minutes of no target behavior
  - Competency-based and knowledge training required for all staff
- TO systematically removed one-by-one over 12 months
- 11 most aggressive clients excluded from TO reduction program
- 21 / 34 - no increase or decreases in problem behavior
- 13 / 34 - increases
  - 10/13 - adding alternate procedures eliminated TO
  - Time out retained for 3/34
  - TO eliminated for 31/34 (90% reduction)
Sanders (2009)

- **Service-wide intervention**
  - 75 children and 43 adults
  - Day school and the residential program
    - Clients supported in the 21 community-based group homes
    - two school sites often lacked safety awareness
  - Males (71%) and females (29%)
  - Children
    - 7 to 21 years
    - 24% had profound or severe intellectual disabilities
    - 43% had moderate to mild intellectual disabilities
    - 33% their level of intellectual disabilities was unspecified.
  - Adults
    - aged from 18 to 68
    - 42% had profound to severe intellectual disabilities
    - 40% had moderate to mild intellectual disabilities
    - 18% their level of intellectual disabilities was unspecified
Four components

- Action Plan
  - Measurement
  - Goals
  - Alternates to restraint
- Staff Training
- Management Support
  - “manager on street”
- Monitoring
  - Graphed data
  - Used data
The rates of physical interventions per 50,000 adjusted client days during Fiscal years 2005–2008.
The rates of client-related injuries per 50 000 adjusted client days 2005–2008.
The total costs of lost staff time and replacement labor costs for client-related staff injuries 2004–2008.
Common Elements

- Leadership support and development
- Staff training, supervision and development
  - direct care
  - Supervisors
- Clearly stated goals
- Reliable measurement
  - No cheating
- Training staff to do other things
- Often (not always) FBA’s and Behavior plans
Group Exercise

- You have been hired as a behavior analyst in a school for children with autism which claims to be an ABA school. At interview the Assistant principle appears in favor of ABA and extolls the virtues of positive reinforcement.
- After working there for 2 weeks you have observed
  - 8 of 32 children have been restrained for a total of 35 times.
  - 6 of the children are in 2 classrooms which the assistant now refers to as “our two little zoos”. The two teachers in these classrooms are stressed and frequently complain that there is insufficient staff. they ask you to spend time in the classroom to work directly with specific children.
  - There is no overall tracking system for restraints or injuries and no system in place to monitor restraint.
  - You are expected with the nurse to be on call for code blue behavioral emergencies. You feel that these are misused by staff to avoid dealing with problem behaviors.
- Describe
  - your plan of action
  - What are the ethical challenges of this situation
  - After 6 months of working hard things restraints are almost completely eliminated, except for of the classrooms. The teacher and staff in this room are now oppositional and refuse to collect any information, have not trained any skills, do not follow the classroom schedule, and do not implement most prevention strategies. One staff is off on long-term sick claiming a work-related back injury. They have received repeated in-services and there have been many emergency meetings.
  - What should you do?
Summary

- Restraints
  - Can be readily eliminated
  - for individuals
    - ABA interventions
    - FBA-based
    - Organizations
  - Data-driven