NEW EVIDENCE FOR THE EFFICACY OF POSITIVE CRISIS MANAGEMENT STRATEGIES IN THE RESOLUTION OF SERIOUS INCIDENTS

Matthew Spicer and Nicola Crates
## Considerations when Responding to Aggression

<table>
<thead>
<tr>
<th>Guiding Legislation</th>
<th>Service Issues</th>
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<tbody>
<tr>
<td>- Industrial Law - OH&amp;S Requirements</td>
<td>- Provide a Safe Workplace</td>
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<tr>
<td>- Civil Law – Tort of Negligence</td>
<td>- Duty of Care</td>
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<tr>
<td>- Criminal Law – Criminal Codes / Assault</td>
<td>- Reasonable Force</td>
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</table>
### Situation and Risk

- **Common Crisis Management Training Programmes**
  - Crisis Communication Techniques
  - Evasion
  - Restraint

- **Issues**
  - Topographically Related
  - Restraint

### Future Occurrence

- **Punishment (Aversive Strategies)**
- **Restrictive Environments**
• A focus on Risk, Physical Safety and ‘Fairness’

• The Alignment Principle
  • The more risky the behaviour the more necessary and justifiable is the aversive or restrictive practice required to control it.

• Beliefs About Reinforcement
  • The belief that a ‘problem behaviour’ will be reinforced if it is followed by a preferred activity or event.
  • Coupling Crisis Management with Treatment Goals

• A Belief in ‘Rough Justice’
  • People behaving ‘badly’ should not get good things
Non-Linear ABA – Situational Effects


Episodic Severity Escalation and Resolution
Our Concerns In a Crisis

1. Rapid and Safe Control
   - Provide a Safe Workplace
   - Duty of Care
   - Reasonable Force

2. Doing No Harm. Avoid:
   - Physical Injury
   - Psychological Injury
   - Damaging the Therapeutic Alliance
Research Design

Archival review of behavioural incident reports from Anglicare and Optia Inc
- Initially reviewed clients with at least 3 reports in previous 12 months
- Data Extension focussed on adding additional incidents with
  - An Episodic Severity of >5
  - Adding incidents from individuals in a trauma treatment service

Examined the impact of staff actions (reactive strategies), which we described as **Strategy Impact**, on momentary effect severity

Looking *within* an incident so impact on ME Severity not Episodic severity – Escalation, Unchanged, De-escalation, Resolution

To do this developed a universal Momentary Effect Severity Scale which could be used to measure severity of Aggression, Self Injury and Outburst Behaviours
Demographic Information

- 14 males and 3 females
- Age Range 12 to 69 years
- Diagnosis
  - Intellectual Disability
  - Trauma and Disrupted Attachment
- Accommodation Settings
  - Group Home
  - Therapeutic Residential Care
  - Intensive Support Service
  - Centre Based Respite
- Presenting Behaviour Problems
  - Aggression
  - Outburst
- 90 Incidents
- 230 Separate Reactive Strategies
Inter-Rater Reliability

Calculated using Consensus Reliability (3 raters) for
- Strategy Type
- Momentary Severity Ratings Onset/After (which gives MS change)
- Strategy Impact

\[
\text{Agreements} \times 100 \div \text{Agreements+ Disagreements} = \% \text{ Reliability}
\]

Inter-rater reliability was
- **Strategy Type** 87%,
- **Strategy Impact** 95%
- **Momentary Effect** 95%

- Sampled 11% of reports-13% of strategies
- Aversive
  - (Where an aversive stimulus was introduced such as a threat to be taken to secure Mental Health Facility or loss of privileges)

- Restrictive
  - (Where the persons freedom of movement was restricted typically brief manual restraint less than 60 seconds)

- Non-Functionally Based Non Aversive Reactive Strategies (N-FB NARS)

- Functionally Based Non Aversive Reactive Strategies (FB NARS)
## Positive Resolution - Introduce a Stimulus to Reduce Behaviour

- **Stimulus change**
- **Something they love to do / Preferred Events**
- **Ask them to help you**
- **Ask them to do something they always do.**
- **Remind of previously arranged deals for Positive Behaviour**
- **Inject Humour**
  - **Facilitate coping skills**
    - Physical Activity
    - Relaxation
    - Deep breathing

## Negative Resolution - Remove a Stimulus to Reduce Behaviour

- **Stimulus change by reducing stimulation in the environment**
  - Turn off the lights
  - Turn down sound
  - Move people away

## Evasion - Stay safe while implementing strategies

- **Use of physical environment to provide barriers to contact**
- **Self protection through protective clothing, objects and deflection**
- **Maintaining a safe distance**
<table>
<thead>
<tr>
<th>Positive Resolution – Introduce a Stimulus to Reduce Behaviour</th>
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<tbody>
<tr>
<td>Tangible - Give the person what they want or need</td>
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<tr>
<td>Strategic Capitulation (Immediate / Delayed)</td>
</tr>
<tr>
<td>Stimulus Satiation</td>
</tr>
<tr>
<td>Interaction – Provide the interaction the person wants or needs</td>
</tr>
<tr>
<td>Active Listening</td>
</tr>
<tr>
<td>Facilitate Communication</td>
</tr>
<tr>
<td>Sensory – Provide alternate sensory input that the person wants or needs</td>
</tr>
<tr>
<td>Divert to preferred sensory activity</td>
</tr>
<tr>
<td>Divert to preservative activity</td>
</tr>
<tr>
<td>Emotional Expression - Support the person to express emotions</td>
</tr>
<tr>
<td>Active Listening</td>
</tr>
<tr>
<td>Facilitated Communication</td>
</tr>
<tr>
<td>Physical Comfort</td>
</tr>
<tr>
<td>Physical Exertion</td>
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<th>Negative Resolution - Remove a Stimulus to Reduce Behaviour</th>
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<tr>
<td>Escape – Support the person to escape from the situation or experience they find unpleasant</td>
</tr>
<tr>
<td>Facilitate leaving</td>
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<tr>
<td>Remove demands / requests expectations</td>
</tr>
<tr>
<td>Move away from the person</td>
</tr>
<tr>
<td>Use Distraction (To facilitate Escape from upsetting or traumatic thoughts)</td>
</tr>
<tr>
<td>Sensory – Remove sensory input that is unpleasant or overwhelming for the person</td>
</tr>
<tr>
<td>Momentary Effect Severity - Scale</td>
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<tr>
<td>----------------------------------</td>
</tr>
<tr>
<td>1. No topographies present.</td>
</tr>
<tr>
<td>2. Insults or swearing directed at others, verbal and or gestural threats to harm self or others and/or physical contact with property.</td>
</tr>
<tr>
<td>3. Attempts at physical contact (no weapons) that may harm self or others, or any actual contact that leaves no marks.</td>
</tr>
<tr>
<td>4. Physical contact (no weapons) directed at self or others leaving marks or injuries that require no treatment (No first aid or professional medical treatment).</td>
</tr>
<tr>
<td>5. Physical contact directed at self or others leaving marks or injuries that require first aid treatment and/or gestural threats with a weapon, no attempt at contact and/or spitting.</td>
</tr>
<tr>
<td>6. Physical contact directed at self or others leaving marks or injuries that require professional medical treatment and/or attempted contact with a weapon.</td>
</tr>
<tr>
<td>7. The use of a weapon where contact occurs, and where no treatment is necessary; or causing injury requiring first aid and/or choking with no loss of consciousness.</td>
</tr>
<tr>
<td>8. Contact by use of a weapon that requires professional medical attention and/or choking with loss of consciousness.</td>
</tr>
<tr>
<td>9. Physical contact directed at self or others and/or use of a weapon that requires professional medical attention and results in permanent disability.</td>
</tr>
<tr>
<td>10. Physical contact directed at self or others and/or use of a weapon that results in death.</td>
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</table>
Results
Aversive

47%
Aversive

- Escalation: 47%
- Continues: 43%
- Resolution: 10%
Restrictive

46%

42%
Non-Functionally Based NARS

7%
Non-Functionally Based NARS

7%

25%
Non-Functionally Based NARS

- 7%
- 20%
- 25%
Non-Functionally Based NARS

- Escalation: 7%
- Continues: 25%
- De-escalates: 20%
- Resolution: 48%

Escalation Continues De-escalates Resolution
Functionally Based NARS

Resolution

100.00%
Strategy Impact – All Cases

<table>
<thead>
<tr>
<th>Strategy Impact</th>
<th>Resolution</th>
<th>De-escalates</th>
<th>Continues</th>
<th>Escalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aversive</td>
<td>10%</td>
<td>0%</td>
<td>43%</td>
<td>47%</td>
</tr>
<tr>
<td>Restrictive</td>
<td>0%</td>
<td>13%</td>
<td>42%</td>
<td>46%</td>
</tr>
<tr>
<td>NFB - NARS</td>
<td>48%</td>
<td>19%</td>
<td>25%</td>
<td>7%</td>
</tr>
<tr>
<td>FB - NARS</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
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Kruskal-Wallis $H (3, N = 230) = 90.70708$ $p = 0.000$

Aversive (R:94.83) = Restrictive (R:93.79) > N-FB NARS (R:52.43) > FB NARS (R:29.5)
Strategy Impact – ID vs. Trauma

F(1, 213) = .72633, p = .39503
1. No topographies present.

2. Insults or swearing directed at others, verbal and or gestural threats to harm self or others and/or physical contact with property.

3. Attempts at physical contact (no weapons) that may harm self or others, or any actual contact that leaves no marks.

4. Physical contact (no weapons) directed at self or others leaving marks or injuries that require no treatment. (No first aid or professional medical treatment)

5. Physical contact directed at self or others leaving marks or injuries that require first aid treatment and/or gestural threats with a weapon, no attempt at contact and/or spitting.

6. Physical contact directed at self or others leaving marks or injuries that require professional medical treatment and/or attempted contact with a weapon.

7. The use of a weapon where contact occurs, and where no treatment is necessary; or causing injury requiring first aid and/or choking with no loss of consciousness.

8. Contact by use of a weapon that requires professional medical attention and/or choking with loss of consciousness.

9. Physical contact directed at self or others and/or use of a weapon that requires professional medical attention and results in permanent disability.

10. Physical contact directed at self or others and/or use of a weapon that results in death.
Mean ME Change

F(3, 220) = 27.387, p = 0.0000

FB-NARS = NFB-NARS < Aversive = Restrictive
Mean ME Change – High (>5) vs. Low (<=5) Severity

- Mean ME Change for FB-NARS, NFB-NARS, Aversive, and Restrictive categories.

Bars represent the mean ME change for high and low severity levels.
Mean ME Change – High (>5) vs. Low (<=5) Severity

-6

-4

-2

0

2

4

6

FB-NARS

NFB-NARS

Aversive

Restrictive

High

Low

33
Mean ME Change – High (>5) vs. Low (<=5) Severity

-6  -4  -2  0  2  4  6

FB - NARS  NFB - NARS  Aversive  Restrictive

High  Low

34
The Alignment Principle
There is a frequently articulated concern that NARS, may reinforce a problem behaviour and that FB-NARS are even more likely to be reinforcing because the consequence is directly related to the function.

This is potentially a concern when understanding the ‘behaviour exists within a linear context and when using single element interventions.'
Change in ES at 3 months as % of Baseline

Change in Occurrence at 3 months as % of Baseline

Resolving the Myth of Reinforcement

This is addressed within the non-linear multi-element model by:

- High density of preferred events, ecological changes and antecedent controls set scene for lower likelihood of behaviour
- Providing non-contingent access
- Teaching and reinforcing functionally equivalent behaviours (alternate sets) and therefore expanding the response class
- Responding to other (more appropriate behaviours) in the response class, matching law demonstrates that there will be an increase in use of these behaviours to the extent that they are effective and will thereby reduce use of problem behaviour proportionally.
- Using DRO to break response class and suppress problem behaviour
- Shaping the behaviour down by responding earlier in the escalation cycle
## Support Plans

<table>
<thead>
<tr>
<th>Proactive Strategies</th>
<th>Reactive Strategies</th>
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<tr>
<td>Environment Change</td>
<td>Functionally Based</td>
</tr>
<tr>
<td>Skills Development</td>
<td>Strategic Capitulation</td>
</tr>
<tr>
<td>Direct Treatment</td>
<td>Non-Functionally Based</td>
</tr>
</tbody>
</table>

- Environment Change
  - Settings
  - Interactions
  - Instructional Methods
  - Environmental Pollutants (e.g. noise, crowding)
  - Number & Characteristics of other people

- Skills Development
  - General Skills Development
  - Functionally Equivalent
  - Functionally Related
  - Coping/Tolerance

- Direct Treatment
  - Differential Schedules of Reinforcement
  - Stimulus Control
  - Instructional Control
  - Stimulus Satiation
  - Etc.

- Reactive Strategies
  - Functionally Based
  - Strategic Capitulation
  - Non-Functionally Based
  - Active Listing
  - Stimulus Change
Reductions in Occurrence, Episodic Severity, Restraint and Seclusion for 24 Clients Presenting with Aggression after 3 months Intervention using MEM reported as a percentage of baseline measures.
Barriers to Relinquishing Traditional Methods

- The ‘Alignment Principle’
- The ‘Myth of Reinforcement’
- The Impact of the Stress Response on Thinking
Complying with Legislation and Policy

- Most require that all positive practices have been tried and found not to have been effective

- If you haven’t done it like this then it would be difficult to make the case for compliance

- Comprehensive Functional Behaviour Analysis (meeting defined standards) and a Multi-Element Support Plan based on Non-Aversive techniques
Conclusions

Responding to Outbursts and Aggression with

- compassion,
- understanding and assistance,
- even meeting the person’s needs

is **not** reinforcing of the problem behaviour within the context of a multi-element plan and the most effective means of resolving crises.

Teaching this requires passion and demands that practitioners commit fully to the spirit that underpins the use of NARS.
“STRATEGIES ARE ACE, WHEN THEY’RE FUNCTIONALLY BASED!”