Assessment, Treatment and Treatment Outcomes of Anger and Aggression

RADiANT CPD Programme

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Prevalence of Aggression in People with ID

- **Aggression is a common feature of populations of people with ID**

- **Studies across 3 continents using broadly similar interview and survey methodologies have yielded similar results**

  (e.g. Deb et al., 2001; Hill & Bruininks, 1984; Sigafoos et al., 1994; Smith et al., 1996; Taylor et al., 2004)

- **Prevalence of *serious* aggression in the UK ID *community* population is 12-22%**

- **Prevalence of aggression in hospital settings is significantly higher than in community settings**

Prevalence of Aggression in People with ID –
Ref: Taylor & Novaco (2013)

			Prevalence (%)		
Study	*Location*	*n*	*Community*	*Institution*	*Forensic*
Taylor et al. (2008)	England	782	12	-	-
Tyrer et al. (2006)	England	3065	16	-	-
Hill & Bruininks (1984)	USA	2491	16	37	-
Harris (1993)	England	1362	11	38	-
Sigafoos et al. (1994)	Australia	2412	10	35	-
Smith et al. (1996)	England	2202	-	40	-
McMillan et al. (2004)	England	124	-	-	47
Novaco & Taylor (2004)	England	129	-	-	47

Impact of Aggression in People with ID

- **Aggression is the 1° reason for people with ID to be prescribed antipsychotic medication *(Aman et al., 1987; Robertson et al., 2000)***

- **Aggression is the 1° reason for people with ID to be (re)admitted to institutional care (*Lakin et al., 1983)***

Index Antisocial and Offending Behaviour *(N = 477)*

Ref*: *O'Brien, Taylor, Lindsay et al. (2010). J of LD and Offending Behr

Index Antisocial/Offending Bhr	Frequency (%)
Offences against the person	
Physical aggression	238 (50)
Verbal aggression	158 (33)
Inappropriate sexual - contact	69 (15)
Inappropriate sexual – non-contact	67 (14)
Cruelty/neglect of children	28 (6)
Stalking behaviour	9 (2)
Non-person offences	
Damage to property	91 (19)
Substance misuse	28 (6)
Theft	27 (6)
Fire-setting	20 (4)
Traffic offences	6 (1)

MHA 1983 Detention of People with ID

- **Proportion of people in general population with IQ scores <70 is approx. 2.5% (assuming normal distribution)**

- **Census data shows that a disproportionate number of people with impaired intellectual functioning are being detained under MHA 1983, as at 31st March 2014 (i.e. 1,405 out of 18,166)**

  - ***More than three times the expected number overall (7.7%; or 1 in 13)***
  - ***More than double the expected number in NHS hospitals (5.6%; or 1 in 18)***
  - ***More than five times the expected number in independent hospitals (13.1%; or 1 in 8)***

Source: ***The Health & Social Care Information Centre (2014)***

Impact of Aggression in People with ID

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- **Aggression is the 1° reason for people with ID to be (re)admitted to institutional care (*Lakin et al., 1983)***
- **Physical violence has a significant negative impact on the rehabilitation of offenders with ID**
- **Physical violence has significant costs for institutional and forensic ID services *(Jenkins et al., 1997; Kiely & Pankhurst, 1998)***
- **Anger is a significant activator of, is associated with, and predictive of violence in ID populations *(Novaco & Taylor, 2004)***

Treatment of Aggression in People with ID

Psychopharmocology

- The most common approach despite there being little/no research support for it's effectiveness, e.g.
  - *Deb et al., 2007*
  - *Brylweski & Duggan, 1999*
  - *Tyrer et al., 2008*

Behavioural Analytic Interventions

- A good deal of evidence for high frequency aggression with low functioning patients in highly structured environments using contingency management approaches, e.g.
  - *Taylor, 2002*
  - *Whitaker, 1993*

- Tend not to generalise well across settings, are not self-actualising and are not appropriate for low frequency, but high impact behaviour

Cognitive-Behavioural Treatment of Anger for People with ID – *Summary of Evidence*

- **Post-1985 36 studies been have published on the effectiveness of psychotherapeutic anger interventions for people with ID**
  (see Taylor & Novaco, 2013 for review)

- **There are 13 reports on mainly small anger CBT outcome studies with ID clients that involved comparison groups**
  (Benson et al., 1986; Hagiliassis et al., 2005; Lindsay et al., 2004; Rose et al., 2000, 2005, 2009; Taylor et al., 2002, 2004, 2005; Willner et al., 2002, 2005, 2013)

- **There are also a number of reports in the literature of CBT for anger in offenders with ID**
  - ***Allen et al., 2001***
  - ***Burns et al., 2003***
  - ***Lindsay et al., 2003, 2004***
  - ***Singh et al., 2008***
  - ***Taylor et al., 2002, 2004, 2005, 2009; 2015***
  - ***Novaco & Taylor, 2015***

Cognitive-Behavioural Treatment of Anger for People with ID – *Summary of Evidence II*

Ref. Nicoll, Beail & Saxon (2013). JARID

- Systematic Review and meta-analysis of CBT for anger in adults with ID
- 12 studies published between 1999-2011 met the inclusion criteria (10 UK; 2 Australia)
- All studies utilised the Novaco CBT approach
- Overall large uncontrolled ES = 0.88; 6 group treatment studies ES = 0.84; 3 individual treatment studies ES = 1.01
- Review reveals an 'emerging evidence base' for CB anger interventions for adults with ID
  - studies show 'a good level of methodological rigour'

Impact of CBT Anger Treatment on Aggressive Behaviour and Violence

- **There is limited evidence – small case studies and series and small group studies – that CBT anger treatment reduces aggressive behaviour/violence**

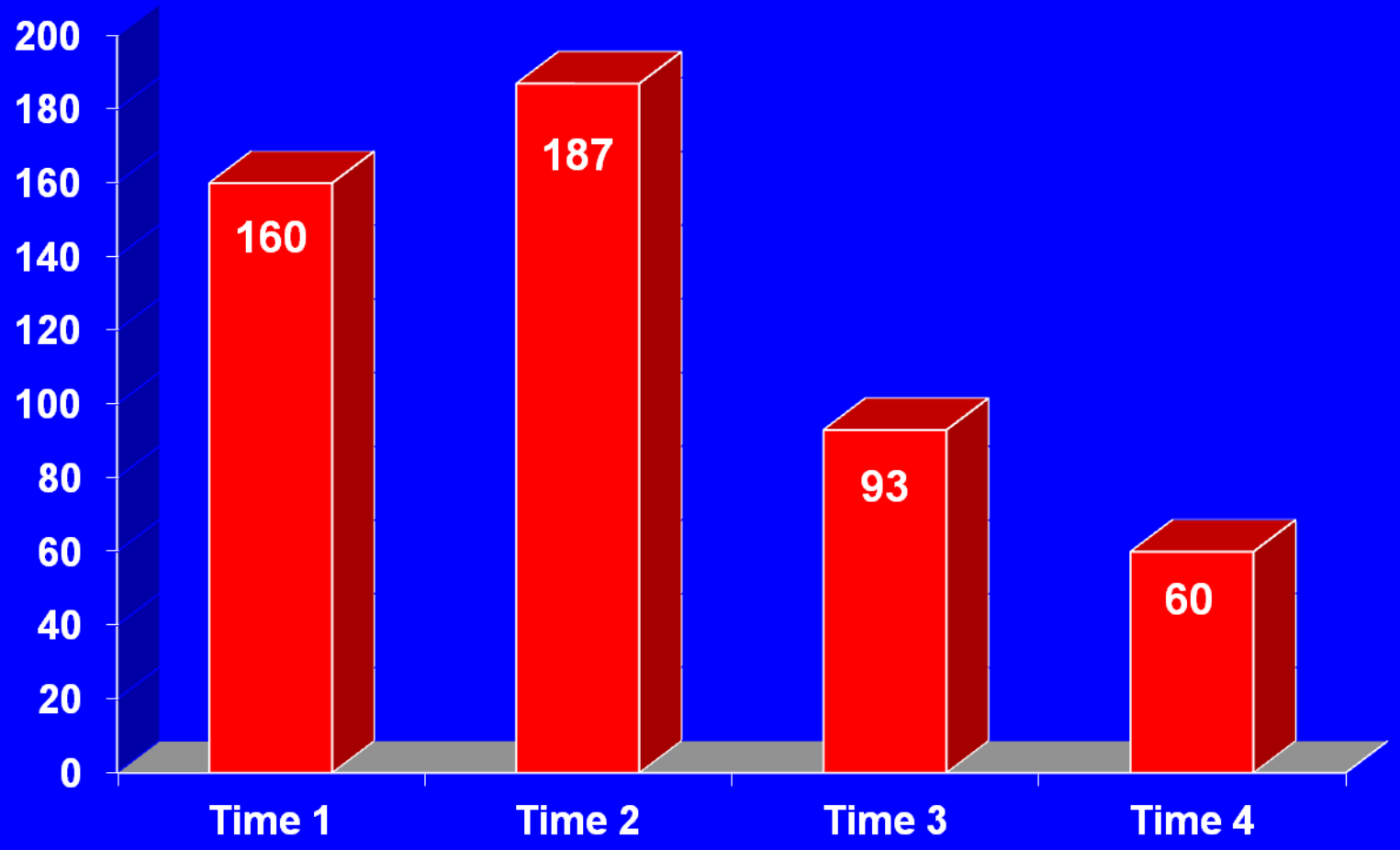
- ***Rose,1996 (n=5); Allen et al., 2001 (n=6); Lindsay et al., 2003 (n=6)***

- ***Singh et al., 2003 (n=1); Singh et al., 2007 (n=3); Singh et al., 2008 (n=6)*** **- All involved a 'mindfulness-based' CBT intervention**

- ***Lindsay et al., 2004 (n=47)*** **Non-randomised, retrospective study in routine care setting**
  - **At post-treatment assessment 14% of Tx group (n=33) had been physically assualtive vs. 45% of Cx group (n=14)**

Total Physical Attacks Over 24 Months: *Pre- and Post-Treatment (N = 50) - Taylor et al. (2016). JIDR*

Pre-treatment = 347; Post-treatment = 153



Reduction in Physical Assaults as Associated with NAS Change Scores – *hierarchical regression*

(Novaco & Taylor, 2015, BRAT)

- **Reductions in physical assaults, controlling for IQ, are related to pre-treatment minus post-treatment improvement in *anger disposition* (NAS Total scores)**

- **Reductions in physical assaults are also related to pre-treatment minus post-treatment improvements in:**

  - ***outwardly directed anger* (STAXI anger-out)**
  - ***anger control* (NAS anger regulation)**
  - ***observer-rated patient anger* (WARS anger attributes)**

Anger Treatment for ID Offenders

- **Modification of Novaco's (1993) treatment protocol**
- **The treatment is based on the 'Stress Inoculation' paradigm** ***(Meichenbaum, 1985)***
- **Emphasises collaboration, personal responsibility, self-control & the legitimacy of anger**
- **Utilises a range of assessment, educational & training materials adapted to help patients with LD engage in the treatment process**
- **Treatment is delivered individually over 18 sessions (x2 per week):**
  - **6 session preparatory phase (psycho-educational)**
  - **12 sessions of treatment 'proper' (cognitive re-structuring, arousal reduction & skills training)**

Preparatory Phase Sessions – *Focus of Content*

Session 1 - Explaining the purpose of anger treatment

Session 2 - Feeling angry is OK – anger as a normal emotion

Session 3 - Understanding our own and other peoples' feelings

Session 4 - How to control the physical feelings of anger – physiological arousal

Session 5 - Reasons for changing the way we cope with angry feelings

Session 6 - Review of the Preparatory Phase and preview of Treatment Phase

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Anger Treatment for ID Offenders

Key components of the treatment:

- **Self-monitoring of anger frequency, intensity and triggers**
- **Arousal reduction techniques – e.g. APMR, imagery**

- ***Analysis and formulation of individual patients particular anger problems***
- ***Cognitive re-structuring***

- **Construction of a personal provocation hierarchy**
- **Stress inoculation to practice coping in imagination**
- **Training behavioural coping skills – focus on effective communication**
- **Development of personalised self-instructions to prompt coping**

- **Maintenance/RP plan**

Patient Tim - Background Information

- Age 25 years
- Full Scale IQ = 72
- Psychiatric Diagnosis = Borderline Intelligence
- MHA Section = 37/41 Hospital Order with Restrictions
- Length of stay in hospital = 4.5 years
- Index Offence(s) = Indecent assaults against young children
- Rehabilitation Status = ‘longer-stay’ low secure (slow-track rehabilitation)
- Previous Psychological Interventions:
    i. Positive response to an individual behavioral programme to reduce interpersonal conflict
    ii. Completion of group-based sex offender treatment programme with mixed outcomes

Tim - Anger Problem Analysis I

- NAS Total Score = 120
  - NAS Cognitive = 40
  - NAS Arousal = 39
  - NAS Behavioral = 41
- Provocation Inventory Total = 80
- STAXI Trait Anger = 20
- STAXI Anger Expression = 39

Tim - Anger Problem Analysis II

- **Situations (PI):**
  - ***Unfairness/Injustice***
    ‘Being accused of something I haven’t done’
  - ***Disrespect***
    ‘People saying nasty things about people who are important to me’
  - ***Irritations***
    ‘People going on and on about things’

- **Thoughts (NAS Cognitive):**
  - ***Justification***
    ‘I get angry because I have good reason to’
  - ***Rumination***
    ‘When something gets me angry I keep thinking about it’

Tim - Anger Problem Analysis III

- **Feelings (NAS Arousal):**
  - ***Intensity***

    'When I get angry I get *really* angry'
  - ***Duration***

    'Some people get angry and then forget about it straight away, but I think about it over & over'

- **Behaviour (NAS Behavioural):**
  - ***Verbal Aggression***

    'If somebody bothers me I'll swear & shout at them'
  - ***Impulsive Reaction***

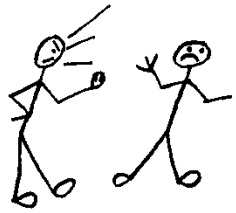
    'If somebody upsets me I'll fly-off-the-handle really quickly'

PATIENT G.

HOW ANGER WORKS

SITUATIONS
something or someone annoys or upsets you

- Being accused of things I haven't done (UNFAIR)
- People saying things about people who are important to me (DISRESPECT)
- People going on & on about things (IRRITATION)



THOUGHTS
about the situation

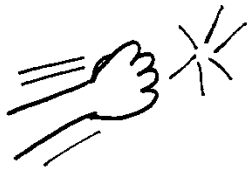
- I want to hit him (JUSTIFICATION)
- I should hit him (")
- He deserves it (")
- I'll get him later (RUMINATION)
- It goes round & round my head "

FEELINGS
about it
i.e. ANGER

- I'm really, really pissed off (INTENSITY)
- Very strong feeling (")
- It stays in me for a long time (DURATION)

REACTION
i.e. what you do about it

- Threaten to hit him (VERBAL AGGRESSION)
- Swear & shout (")
- Argue back
- Grab him & threaten him (IMPULSIVE CONFRONTATION)
- Punch wall (INDIRECT EXPRESSION)



CONSEQUENCES
i.e. what happens to you and others afterwards

- Get into trouble
- Drop Grades
- Get priveledges stopped
- Hurt self
- Feel Bad • Get more angry

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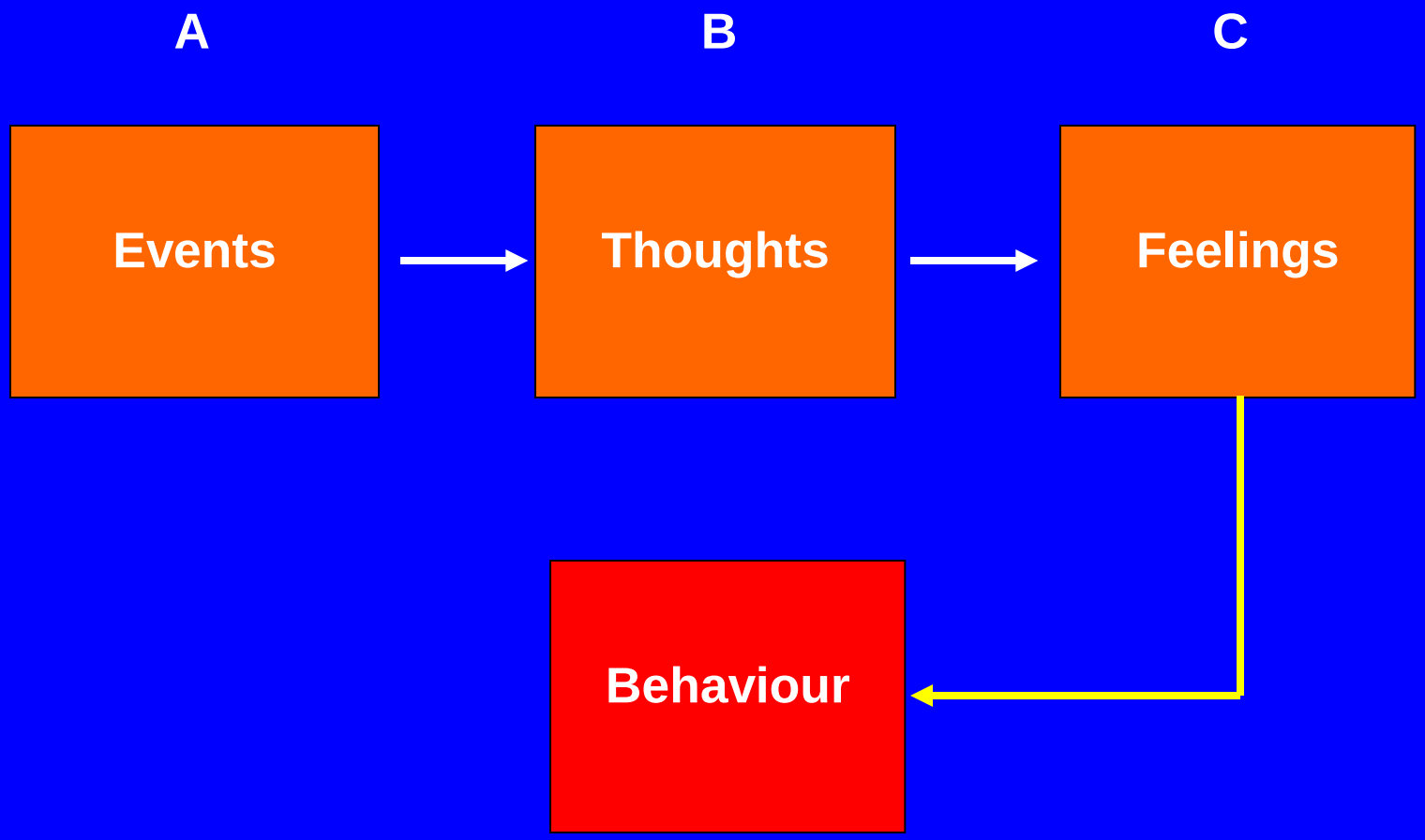
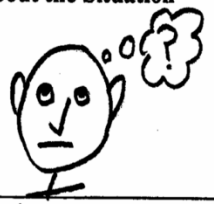
- **Maintenance/RP plan**

Cognitive-Behavioural Model of Emotion – *Simple Linear*



THINKING DIFFERENTLY ABOUT ANGER SITUATIONS

Name:... [redacted] Date: ... [redacted] ...

	Situation Where? What? Who?	Thoughts About the Situation	Emotional Feelings 0 - 10	Physical Feelings 0 - 10	Reaction What did you Do/behave?
					
Actual	Confusion about what time Diana finished - came back to villa early-1 when should've been - Staff accused me of trying to get her patient made it worse.	I did nothing wrong - why me - Its not fair - its always me that gets into bother - no one else.	Furious 10/10	Tensed / Shaky Arms Neck Hasp Sweating 6/10	Shouted at staff Argued back Threatened to complain

THINKING DIFFERENTLY ABOUT ANGER SITUATIONS

Name:... [redacted] Date: ... [redacted] ...

	Situation Where? What? Who?	Thoughts About the Situation	Emotional Feelings 0 - 10	Physical Feelings 0 - 10	Reaction What did you Do/behave?
					
Actual	Confusion about what time Diana finished - came back to villa early when should not have - Staff accused me of trying to enter patient made it worse.	I did nothing wrong - why me - Its not fair - its always me that gets into bother - no one else.	Furious 10/10	Tensed / shaky Arms neck Hasp Sweating 6/10	Shouted at staff Argued back Threatened to complain
Possible	→	- This could happen to any patient - They think I'm trying to manipulate the situation - Staff are worried about where patients are (security)	Less Angry 5/10	Less Tense/ Shaky 2/10	Talk to staff calmly / Try to explain what's happened

Anger Treatment for People with Developmental Disabilities

A theory, evidence and manual based approach

John L. Taylor and Raymond W. Novaco

Process Issues Related to Cognitive Behavioural Anger Treatment for People with ID

1. **What is the effect of IQ on treatment outcome?**

   e.g. Rose et al, 2005; Willner et al., 2002

Pre - Post Treatment Change Scores, *Grouped by Median Split on Verbal IQ Scores*

Taylor, Novaco & Johnson (2009) Adv. In Mental Health & LD

	IQ Median Split			
	IQ ≤ 69	IQ ≥ 70	*t*	*p*
NAS Total (*N* = 83)	5.8 (15.6)	9.3 (14.2)	1.06	.289
PI Total (*N* = 82)	3.3 (15.1)	6.4 (14.3)	.94	. 349
Trait Anger (*N* = 83)	0.9 (6.6)	3.2 (7.2)	1.46	.148
Anger Expression (*N* = 83)	4.5 (12.3)	6.8 (9.6)	1.13	.264
WARS Anger Index (*N* = 56)	5.0 (5.0)	5.5 (5.6)	.37	.711

***Note*: Standard deviations are given in parentheses.**

Pre – 12-Month Follow-Up Treatment Change Scores, *Grouped by Median Split on Verbal IQ Scores*

Taylor, Novaco & Johnson (2009) Adv. In Mental Health & LD

	IQ Median Split			
	IQ ≤ 69	IQ ≥ 70	*t*	*p*
NAS Total (*N* = 63)	14.9 (15.1)	12.2 (14.1)	.72	.475
PI Total (*N* = 57)	7.9 (17.4)	6.4 (16.6)	.34	.738
Trait Anger (*N* = 58)	4.9 (6.0)	3.7 (7.4)	.67	.564
Anger Expression (*N* = 58)	9.0 (7.8)	6.2 (11.5)	1.09	.280
WARS Anger Index (*N* = 48)	2.9 (6.5)	1.9 (4.2)	.63	.529

Note: Standard deviations are given in parentheses.

Process Issues Related to Cognitive Behavioural Anger Treatment for People with ID

1. What is the effect of IQ on treatment outcome?

   e.g. Rose et al, 2005; Willner et al., 2002

2. What is the effect of therapist experience on treatment outcome?

Study Therapists

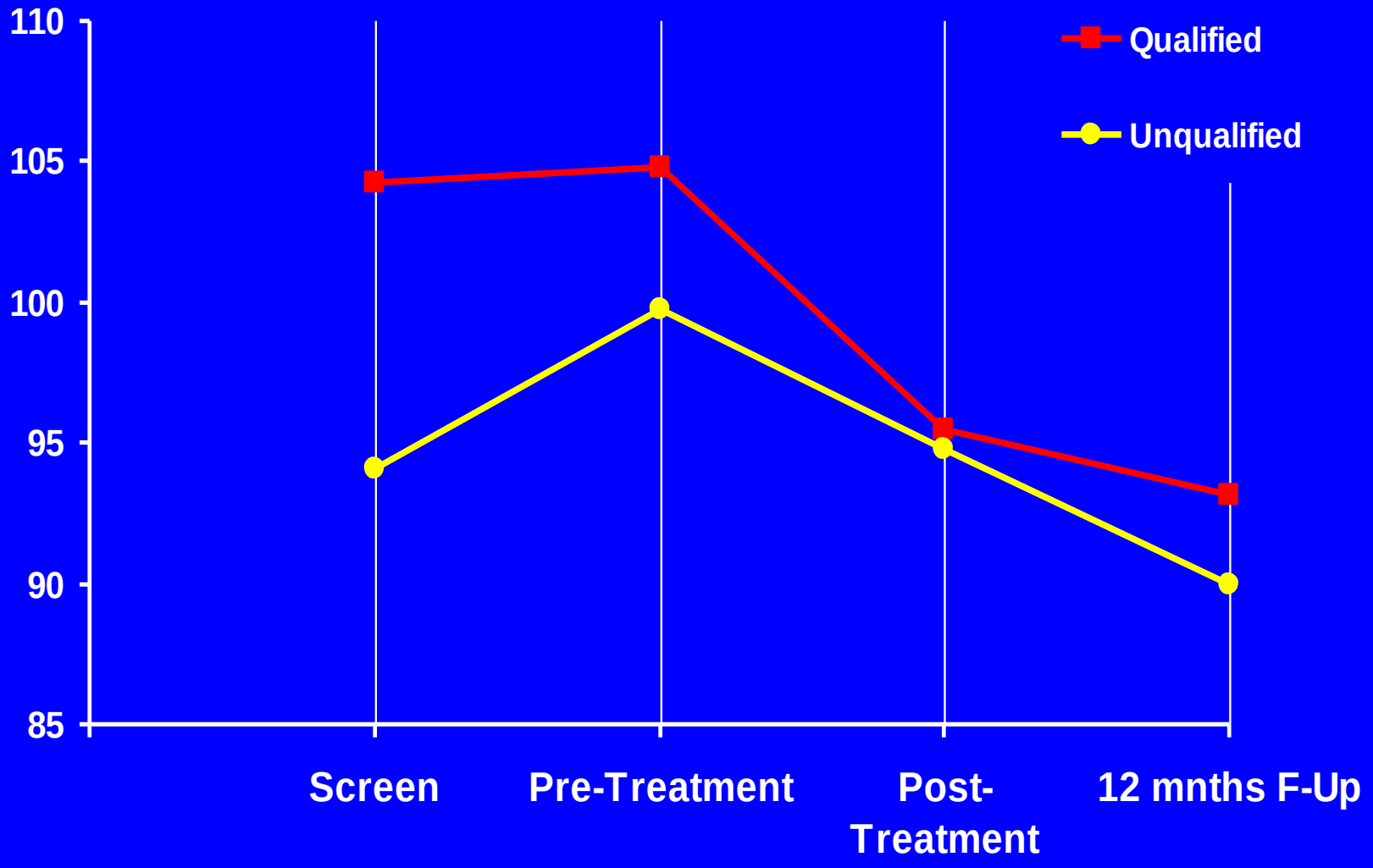
- 10 Qualified Therapists
  - Registered clinical psychologists (7), forensic psychologists (2), occupational therapist (1)
  - 3 men and 7 women
  - Treated 55 patients

- 23 Unqualified Therapists
  - Trainee Clinical Psychologists (7), Higher Assistant Psychologists (16)
  - 3 men and 20 women
  - Treated 33 patients

Therapist Experience – qualified = 38; unqualified = 27

Mean Novaco Anger Scale (NAS) Total

ANOVA $F(1,63) = 0.66$. $p = .42$



Process Issues Related to Cognitive Behavioural Anger Treatment for People with ID

1. What is the effect of IQ on treatment outcome?
   e.g. Rose et al, 2005; Willner et al., 2002

2. What is the effect of therapist experience on treatment outcome?

3. What is the impact of follow-up booster sessions or maintenance programmes on outcomes?
   e.g. Taylor & Novaco, 2005

Anger Maintenance Programme

- Typically anger maintenance sessions will take place on a weekly basis with the named nurse and will include:

  a) weekly review and discussion of patients completed anger logs

  b) cognitive re-framing of situations (from anger logs) that appear to have been misinterpreted

  c) rehearsal of awareness, self-instructional and behavioural coping strategies as set down in the client's personal reminder sheet

  d) either prompts to use arousal reduction techniques regularly or practice of abbreviated relaxation exercises in the session

- Thus patients are not simply going over material covered in the standard treatment sessions, but are building on the techniques acquired by drawing on here-and-now events in order to consolidate the skills learnt in treatment

Anger Treatment Maintenance – *Audit*

Taylor & Novaco, 2005

- **70 patients completed treatment through the Northgate Anger Treatment Project**
- **At audit point, 47 of these treatment completers remained in hospital**
- **Audit showed that just under 25% (11) of these 47 patients were receiving anger treatment maintenance sessions -- although just one of this group was recorded as having declined this input**

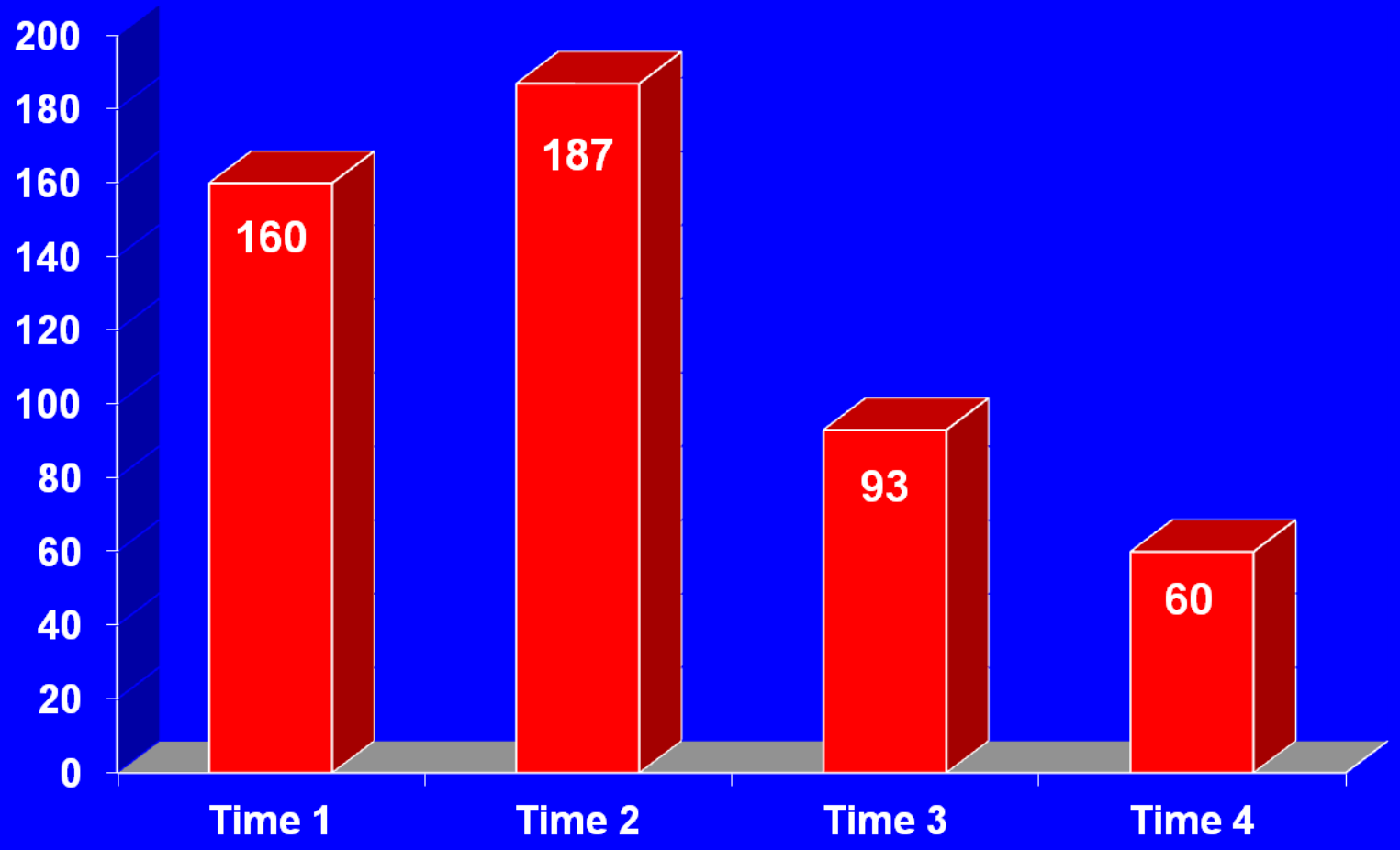
Mean Novaco Anger Scale (NAS) Total (*N* = 50)

GLM Linear Contrasts $F(1,49) = 19.02$, $p < .000$, ES $r = \sqrt{F/(F+df\ \text{error})} = .53$

Total Physical Attacks Over 24 Months: *Pre- and Post-Treatment (N = 50)*

Pre-treatment = 347; Post-treatment = 153

ANOVA (log10): linear trend, F (1,49) = 11.23, p = .002, r = 0.43



Summary

- High rates of aggression occur in ID populations
- Clients with ID and those with significant histories of aggression/violence are amenable to and benefit from cognitive-behavioural anger treatment
- Significant reductions in aggression and violence are observed following completion of anger treatment
- Reductions in aggression/violence are strongly associated with improvements in patient anger following treatment
- This harm reduction effect is likely to result in significant benefits for individual patients and carers, as well as cost improvements for services

Summary 2

- IQ doesn't appear to affect clinical outcomes – particularly at follow-up
- Therapists' experience doesn't appear to adversely affect outcomes
- Anger treatment can be maintained at follow-up (despite maintenance programmes not being routinely delivered in routine practice settings)

Some Good News - *Impact*

NICE Guidelines on 'Challenging Behaviour and Learning Disabilities' (2015, May)

Recommendation 43:

- ***Consider individual psychological interventions for adults with an anger management problem. These interventions should be based on cognitive-behavioural principles and delivered individually or in groups over 15–20 hours***

Chapter 10

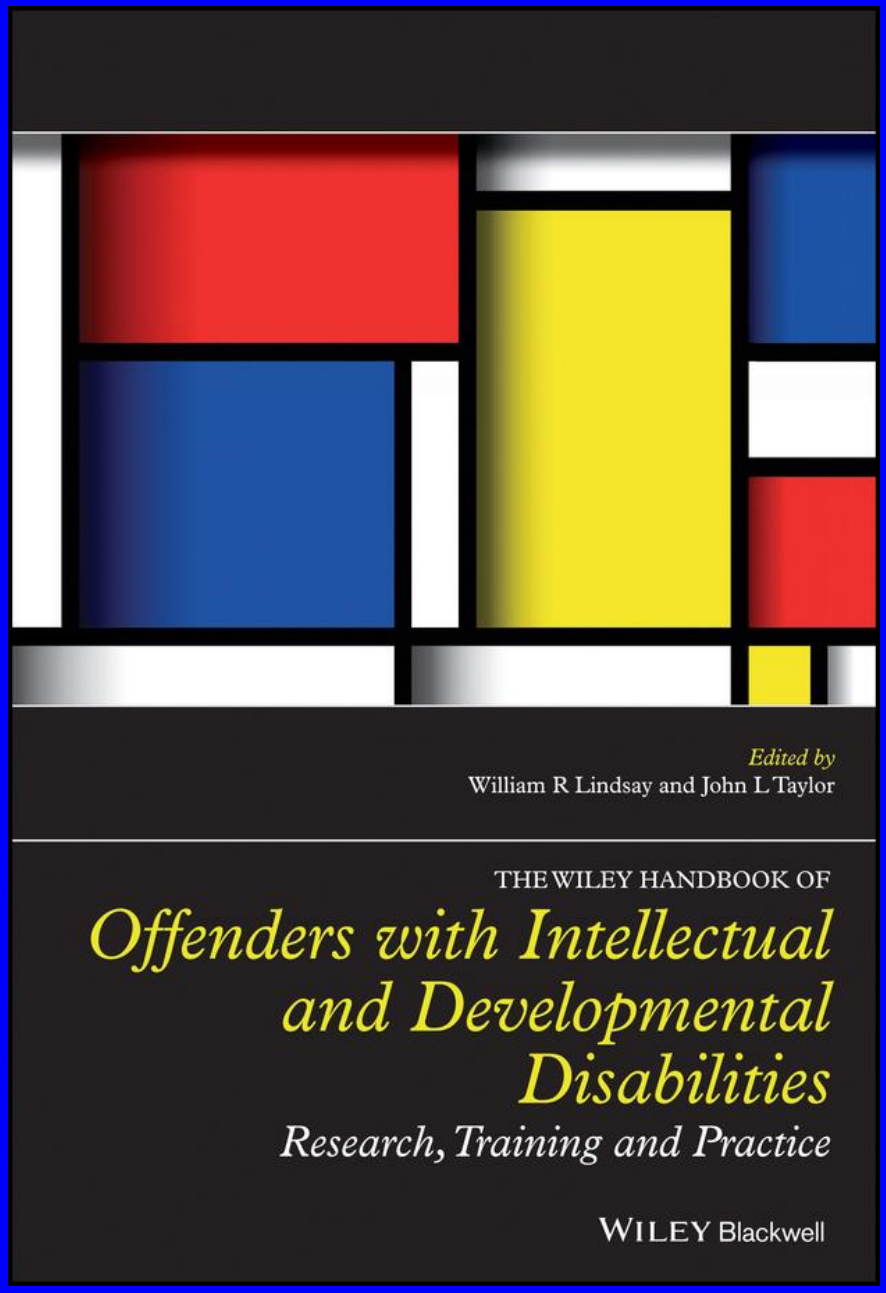
Assessment of Anger and Aggression

Raymond W. Novaco & John L. Taylor

Chapter 14

Treatment Anger, Aggression and Violence

John L. Taylor & Raymond W. Novaco



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