Dialectical behaviour therapy outcomes for adolescents with autism spectrum conditions compared to those without: Findings from a seven-year service evaluation

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Borderline Personality Disorder (BPD)

- BPD is **characterised by** an intense, pervasive, and long-term pattern of:
  - Suicidal and self-harming behaviours
  - Emotion dysregulation
  - Instability in interpersonal relationships, impulse control, and self-identity *(Lieb et al., 2004)*

- BPD is **associated** with severe functional impairment, significant family/carer burden, and a high suicide rate *(Lieb et al., 2004; Paris & Zweig-Frank, 2001; Pompilli et al., 2005)*

- Given the above, **early/earlier intervention** can be offered to improve functional and clinical outcomes – *'emerging BPD' (Chanen et al, 2017)*

- Consider role of **trauma** within a personality disorder diagnosis

What does this have to do with autism?

Co-occurrence

Symptom overlap

ASC and BPD Co-occurence

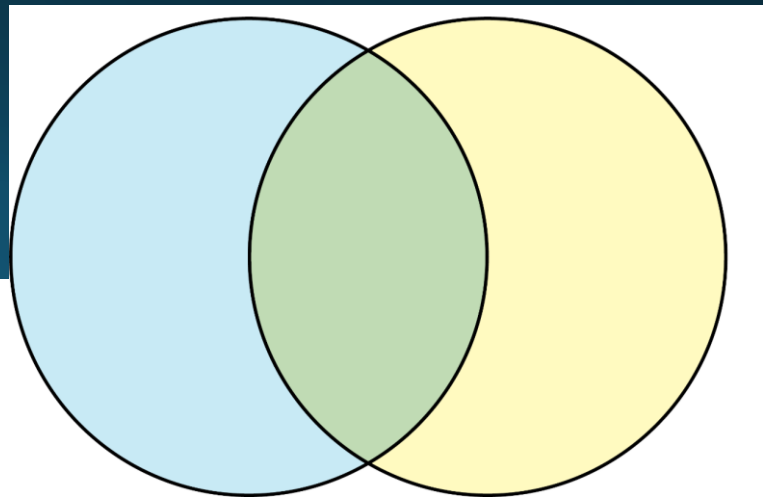
May et al. (2021): 3% BPD in ASC samples, 4% ASC in BPD samples.

But, raised in clinical samples:

- *Anckarsärter et al. (2006):* 12.2% prevalence of BPD in an ASC sample
- *Rydén et al. (2008):* 15% prevalence of ASC in a BPD sample
- *Us, now*: 11.1% prevalence of ASC in a BPD sample

- Considerations of gender complicate the picture somewhat:
  - ASCs more commonly diagnosed in males *(Loomes et al., 2017),* but females with an ASC are underdiagnosed *(Navarro-Pardo et al., 2021)*
  - BPD thought of as a 'female' condition
  - Females with a BPD diagnosis may not receive a diagnosis of an ASC (even when symptom profile is present, and vice versa)
  - Thus - degree of co-occurrence may be greater that previously reported

ASC and BPD Symptom Overlap



- Individuals with **either** diagnosis experience:
  - Self-harm and suicidal behaviour
  - Emotion dysregulation
  - Intense periods of anger
  - Extreme emotional distress
  - Instability in interpersonal relationships, self-image, impulse control

  (Brown et al., 2024; Fitzgerald, 2005; López-Pérez et al., 2017; Pelletier, 1998)

- **Emotion dysregulation** = core symptom of BPD, also has key role in ASCs

  (Cai et al., 2018; Linehan, 1993; Mazefsky et al., 2013)

Research into overlap/co-occurrence of BPD and ASC is in its **infancy.** But likely that some with an ASC will experience symptoms of BPD, and vice-versa.

Presence of life-threatening and functionally-impairing behaviours

Therefore - need to investigate whether established treatments for BPD and self-harm are appropriate for those with ASC

Dialectical Behaviour Therapy (DBT)

- DBT = NICE-recommended treatment for adults with BPD where self-harm is the primary concern, and YP self-harm where emotion dysregulation present *(NICE 2009, 2022).*
- ***Dialectics*** = balancing and bringing together contradictory ideas:

Acceptance ---------- **Change**

- Acceptance *and* change-based strategies threaded throughout therapy.
- Emotion dysregulation focus
- Long-term and multimodal

Overall goal: 'Develop a life worth living'

1. Decrease life-threatening behaviours
2. Decrease therapy-interfering behaviours
3. Decrease quality-of-life-interfering behaviours

DBT and adaptation/accommodation

- Principle led, flexible, and practical in nature
- Person-centred assessment and treatment
- Focus on improving emotion regulation during therapy
- Dialectics and biosocial model grounded in inclusive and affirmative perspectives

DBT and ASCs – previous research

- Overall lack of research investigating appropriateness of DBT for those with ASC.
- Previous studies of DBT for those with ASC report encouraging results:
  - *Hartmann et al. (2019)*: DBT-informed; Improvements in social communication and behaviour.
  - *Ritschel et al. (2021)*: 24-week DBT Skills Group; Feasible, acceptable.
  - *Bemmouna et al. (2022)*: 18-week brief DBT; Feasible, acceptable, decreases in emotion dysregulation.
  - *Huntjens et al. (2024):* 26-week comprehensive DBT; First RCT in the area, significant reductions in suicidal ideation and attempts and depression.

***However**, previous studies have **not**:*

Included adolescents; Included a comprehensive DBT programme

Aims of current research

Investigate the outcomes of a comprehensive DBT programme for adolescents with an ASC diagnosis

- **H_1:** Significant **improvements** in treatment **outcomes** from assessment to end of treatment will be observed for those with an ASC diagnosis.
- **H_2:** Changes in **treatment outcomes** from assessment to end of treatment will be **different** for those with an ASC diagnosis compared to those without.
- **H_3:** Treatment **completion** rates, **opt-out** rates during DBT pre-treatment and **noncompletion** rates during DBT treatment will be **different** for those with an ASC diagnosis compared to those without.

South London and Maudsley NHS
NHS Foundation Trust

National & Specialist CAMHS, DBT Service

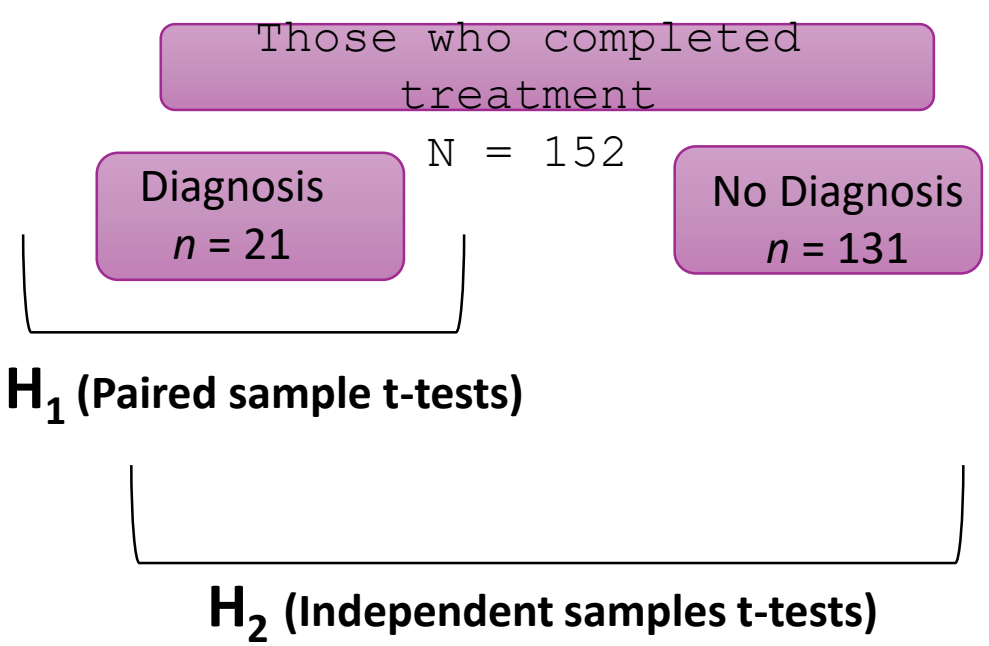
- Tier 4 outpatient CAMHS
- Presence of emotion regulation and 1+ episode of self-harm in last 6 months.
- Treatment consists of 2 phases: Pre-treatment (6 sessions), Treatment (8-12 months)
- Treatment is **multimodal**:
  - Weekly **individual** sessions for duration of treatment
  - Access to between-session **telephone coaching** for duration of treatment
  - Weekly **group skills training** sessions for 6 months (x2):
    -> Distress tolerance; Interpersonal effectiveness; Emotion regulation
  - **Parents/carers** have access to separate sessions

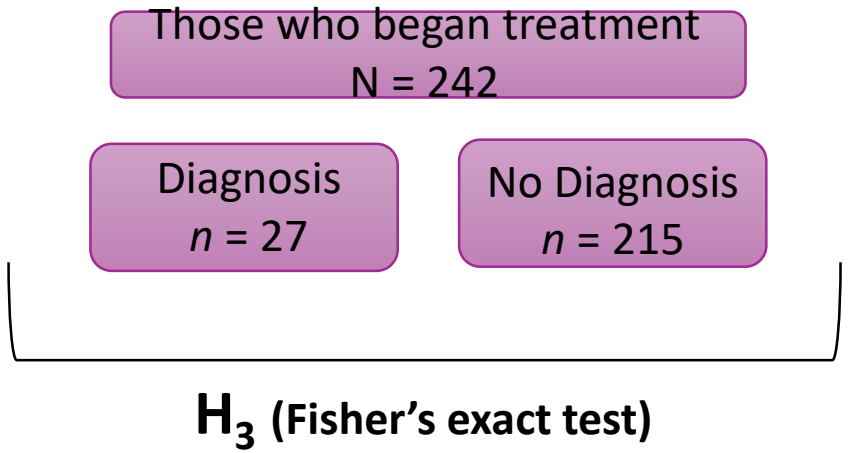
- Treatment based on: adolescent and adult DBT models; DBT for family and carers model

Methodology - Design

- Service evaluation using routinely-collected clinical data, pre-post design.
- Sample consisted of all those who began treatment at the National & Specialist CAMHS, DBT service between April 2015 and September 2022 (**N = 242)**

Split into two samples for analysis:





Measures

Clinical Outcome measures:

- **Frequency of Self-Harming Behaviours:** Count frequencies during first and last 8 weeks of treatment
- **BPD Symptoms:** Maclean Screening Instrument for Borderline Personality Disorder (MSI-BPD)
- **Emotion Dysregulation:** Difficulties in Emotion Regulation Scale (DERS)
  - Non-acceptance, goals, impulsivity, awareness, strategies, clarity
- **Mood:** The Moods and Feelings Questionnaire for Young People (MFQ-YP)
- **Anxiety:** Screen for Child Anxiety-Related Emotional Disorders for Young People (SCARED-YP)

Health Economic:

- **Number of inpatient bed days, A&E attendances**: count frequencies before and after treatment
- **Education and work status:** start and end of treatment; coded 0 and 1
- **Opt-out rates:** if 4 consecutive individual or group sessions are missed

Some caveats pre-results..

- Missing data present in first dataset, 5.04%
- MAR; Expectation maximisation used to impute data.
- Power met for large effects, but not medium
- Bonferroni correction; significance set at $p = 0.004$
- Internal consistency of MSI-BPD and DERS non-acceptance unsatisfactory:

	Cronbach's alpha	
Measure	*Assessment*	*End of treatment*
MSI-BPD	0.63	0.83
DERS		
Non-acceptance	0.57	0.92
Goals	0.84	0.88
Impulsivity	0.90	0.93
Awareness	0.72	0.85
Strategies	0.88	0.92
Clarity	0.81	0.86
Total	0.88	0.96
MFQ-YP	0.91	0.96
SCARED-YP	0.92	0.96

Results – Sample

Table 2 Sociodemographic characteristics of the complete sample

	No diagnosis		*Diagnosis*		
	n	%	n	%	p
Total	215		27		
Sex assigned at birth					1.00
Natal female	208	97	27	100	
Natal male	7	3	0	0	
Gender identity					0.10
Female	177	82	23	85	
Male	19	9	0	0	
Non-binary	11	5	4	15	
Other	4	2	0	0	
Missing[a]	4	2	0	0	
Sexual orientation					0.50
Heterosexual	45	21	6	22	
Gay/Lesbian	20	9	2	7	
Bisexual	42	20	10	37	
Other	17	8	5	19	
Missing[a]	91	42	4	15	
Ethnicity					0.36
White	158	73	19	71	
Black	11	5	2	7	
Asian	4	2	2	7	
Mixed	27	13	4	15	
Other	7	3	0	0	
Missing	8	4	0	0	
Education and work status					0.18
In education and/or work	140	65	23	86	
Not in education and/or work	35	16	2	7	
Missing	40	19	2	7	

Note: [a]Data on sexual orientation were only collected from 2017 onwards
Source: Table is the authors' own work

Results – Treatment outcomes

H_1: Significant **improvements** in **treatment** outcomes from assessment to end of treatment will be observed for those with an ASC diagnosis.

- Significant medium to large reductions in MSI-BPD scores and scores on DERS total, non-acceptance, goals, impulsivity, strategies subscales.
- Significant large reductions in **frequency of self-harm** and number of inpatient bed days.
- All other comparisons non-significant.
- Significant before correction: DERS awareness (p = 0.007; g = 0.57),MFQ-YP (p = 0.03; g = 0.43), A&E attendances (p = 0.007; r = -0.53).

Results – ASC v. non-ASC diagnosis change

H_2: Changes in treatment outcomes from assessment to end of treatment will be **different** for those with an ASC diagnosis compared to those without.

- No significant differences across all measures.
- Significant before correction: MFQ-YP (p = 0.05; g = 0.47) and SCARED-YP (p = 0.01; g = 0.61).

Results – Completion and Opt-out Rates

H_3: Treatment **completion** rates, **opt-out** rates during DBT pre-treatment and **noncompletion** rates during DBT treatment will be **different** for those with an ASC diagnosis compared to those without.

	Non- ASC (*n* = 215)	**ASC (*n* = 27)**
Treatment completion	**61.40%**	**77.80%**
Pre-treatment opt-out	**17.70%**	**7.40%**
Treatment opt-out	**20.90%**	**14.80%**

Discussion

- Results encouraging! 
- Key treatment targets met: *Reductions* in frequency of self-harm, *reductions* in emotion dysregulation.
- Aligns with other research with ASC samples and DBT-A research generally (Bemounna et al. 2022; Huntjens et al., 2024)
- Anxiety and depression and education and work status not found to improve, but not primary treatment targets within the context of a Tier 4 service.
- Completion rates indicate *acceptability* and *feasibility*.

Strengths/Limitations

Strengths:

- Real-world, comprehensive, novel.
- Sample and service design reflective of typical DBT contexts.

Limitations:

- Lack of experimental control.
- Low power for small and medium effects; possible significance masked as a result.
- Lack of diversity within the sample.

Take home messages

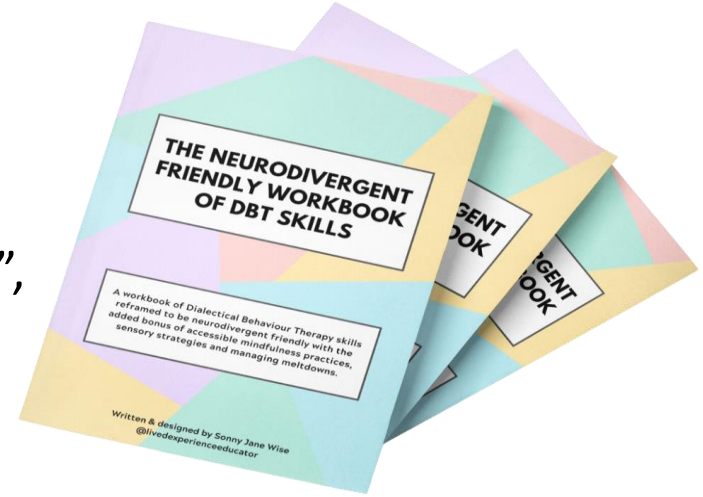
Clinical:

- DBT may be an effective intervention for those with ASC where self-harm and emotion dysregulation are present and the primary concern.
- Practices that aim to improve one's clarity and awareness of emotions may need further optimisation for adolescent ASC populations (e.g. mindfulness practices).
- Flexibility of DBT allows for neuro-affirmative adaptation.

Research:

- Develop findings of these studies within controlled designs.
- Study measure of ASC, capture those without a diagnosis.
- Qualitative research around experience of DBT for those with an ASC.

Suggested resources and reading



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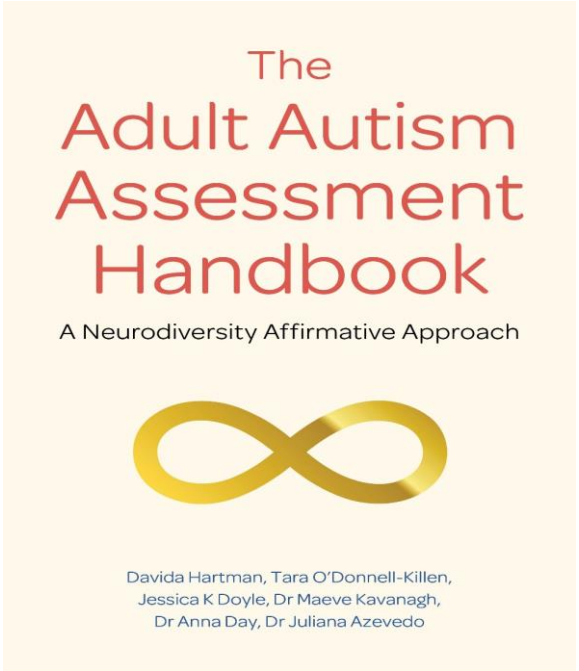

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