

How does Attachment and Trauma severity impact Acceptance and Commitment Therapy in those with Psychosis and Trauma histories?

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Introduction:

A great deal of research has shown that early traumatic experiences lead to serious psychopathology in adults (Barrigón et al., 2015; Misiakiet al, 2017; Mueser & Rosenberg, 2003). Childhood maltreatment (n = 80,000) - 2.7 - 3 times more likely to develop schizophrenia as adults (Varese et al., 2012).

In addition, those with both display psychosis and childhood trauma tend to have:

- Worse outcomes in treatment – higher dropout and less alliance with therapists
- More comorbidity and symptom severity
- Less openness
- Less compliance with treatment
- More suicidal behaviour
- Less social support, more social anxiety and more isolation
- More PTSD symptoms

= a treatment resistant group?

ACT has been shown to be effective with a variety of treatments (Hayes 2013) but has not looked at psychosis and trauma together.

Study 1 - Aims: To determine the potential effectiveness of ACT for people with psychosis and childhood trauma.

Study 2 - Aims: 1) To increase our understanding of the impact of childhood trauma on the ACT treatment and 2) To determine if specific profiles of individuals responding to the treatment and which variables predict this difference.

Procedures

Participants - psychosis and childhood trauma – recruited 3 mental health sites in Canada (Surrey, New Westminster and White Rock).

ACT/TAU groups - Participants were randomly assigned at each center

- No significant differences between the experimental and control groups
- **TAU** – (n=20) medication management, support of a case manager, any community services they attend.
- **ACT group** – (n=30) – TAU and ACT group
 - Two therapists conducted all the ACT sessions.

Participants

- Age 40.4 (19 to 64) years
- 52% of the sample are female and 48% male
- 66% are single/never married; 18% separated; 14% married or common-law and 2% divorced

Attendance

- Mean sessions attendance 6.32 (SD = 1.21)
- 7/30 of the clients completed all 8 sessions.
- All 30 provided data after the treatment and at follow-up

Measures - Childhood Trauma Questionnaire-short form (CTQ) - baseline only; Attachment Styles Questionnaire (ASQ) - baseline only; Cognitive Emotion Regulation Questionnaire (CERQ) – Acceptance scale only; The Brief Psychiatric Rating Scale-Expanded (BPRS-E); The Trauma Symptom Checklist-40 (TSC-40); The Generalized Anxiety Disorder Scale – 7 (GAD-7); Service Engagement Scale (SES); Toronto Mindfulness Scale (TMS)

Study 1 - Table 2 - Reduced RCA Models When Predicting Each Outcome

CERQ- Acceptance						Generalized Anxiety Disorder					
	B	SE	df	t	Cohen's d	B	SE	df	t	Cohen's d	
Intercept	16.8	2.6	143.3	6.4	0.11	13.1	2.5	144.0	5.1	0.03	
Group	-6.0	3.4	142.9	-1.8	0.11	2.4	3.3	143.7	0.7	0.83	
Time	-0.3	1.1	97.6	-0.2	0.10	-0.3	1.0	98.5	-0.3	0.10	
CTQ	-0.0	0.0	142.9	-0.6	0.00	-0.0	0.0	143.7	-0.6	0.00	
Group x Time	2.5	1.4	96.5	1.8	0.06	-1.6	1.3	97.5	-1.2	0.53	
Group x CTQ	0.1	0.1	142.7	1.3	0.05	-0.0	0.1	143.5	-0.2	0.90	
Time x CTQ	0.0	0.0	96.4	0.2	0.03	0.0	0.0	97.3	0.4	0.00	
Group x Time x CTQ	-0.0	0.0	95.8	-1.1	0.03	-0.0	0.0	96.7	-0.2	0.00	
X CTQ											

BPRS- Psychiatric Symptoms						SES-Help Seeking					
	B	SE	df	t	Cohen's d	B	SE	df	t	Cohen's d	
Intercept	45.1	6.5	74.4	7.0	0.57	14.4	1.4	86.5	4.0	0.10	
Group	9.8	8.5	73.6	1.2	0.10	-0.2	1.9	85.5	-0.1	0.10	
Time	0.2	1.5	96.5	0.1	0.02	-0.5	0.4	95.9	-1.2	0.26	
CTQ	0.1	0.1	73.5	0.9	0.01	-0.0	0.0	85.3	-1.3	0.00	
Group x Time	-2.8	1.9	95.3	-1.5	0.03	-4.4	0.5	95.5	-8.8	0.21	
Group x CTQ	-0.1	0.1	73.1	-1.0	0.01	-0.1	0.1	84.8	0.7	0.05	
Time x CTQ	-0.0	0.0	95.3	-0.1	0.00	0.0	0.0	95.5	1.1	0.00	
Group x Time x CTQ	-0.0	0.0	95.2	-0.5	0.00	-0.0	0.0	95.3	-0.7	0.00	
X CTQ											

a = significant mean difference for ACT group between T1-T2 (p < .05); b = significant mean difference for ACT group between T1-T3 (p < .05)

The Group by Time significant interaction in red means that the groups improved differently over time or the intervention was successful.

Study 2 – Table 2 - Reduced RCA Models When Predicting Each Outcome

CERQ- Acceptance						Generalized Anxiety Disorder					
	B	SE	df	t	Cohen's d	B	SE	df	t	Cohen's d	
Intercept	16.8	2.6	143.3	6.4	0.11	13.1	2.5	144.0	5.1	0.03	
Group	-6.0	3.4	142.9	-1.8	0.11	2.4	3.3	143.7	0.7	0.83	
Time	-0.3	1.1	97.6	-0.2	0.10	-0.3	1.0	98.5	-0.3	0.10	
CTQ	-0.0	0.0	142.9	-0.6	0.00	-0.0	0.0	143.7	-0.6	0.00	
Group x Time	2.5	1.4	96.5	1.8	0.06	-1.6	1.3	97.5	-1.2	0.53	
Group x CTQ	0.1	0.1	142.7	1.3	0.05	-0.0	0.1	143.5	-0.2	0.90	
Time x CTQ	0.0	0.0	96.4	0.2	0.03	0.0	0.0	97.3	0.4	0.00	
Group x Time x CTQ	-0.0	0.0	95.8	-1.1	0.03	-0.0	0.0	96.7	-0.2	0.00	
X CTQ											

BPRS- Psychiatric Symptoms						SES-Help Seeking					
	B	SE	df	t	Cohen's d	B	SE	df	t	Cohen's d	
Intercept	45.1	6.5	74.4	7.0	0.57	14.4	1.4	86.5	4.0	0.10	
Group	9.8	8.5	73.6	1.2	0.10	-0.2	1.9	85.5	-0.1	0.10	
Time	0.2	1.5	96.5	0.1	0.02	-0.5	0.4	95.9	-1.2	0.26	
CTQ	0.1	0.1	73.5	0.9	0.01	-0.0	0.0	85.3	-1.3	0.00	
Group x Time	-2.8	1.9	95.3	-1.5	0.03	-4.4	0.5	95.5	-8.8	0.21	
Group x CTQ	-0.1	0.1	73.1	-1.0	0.01	-0.1	0.1	84.8	0.7	0.05	
Time x CTQ	-0.0	0.0	95.3	-0.1	0.00	0.0	0.0	95.5	1.1	0.00	
Group x Time x CTQ	-0.0	0.0	95.2	-0.5	0.00	-0.0	0.0	95.3	-0.7	0.00	
X CTQ											

The significant three-way interactions in red, indicate that trauma moderates the Group x Time interaction which indicates that the treatment was effective, and, that the group effectiveness varies according to the degree of trauma reported by participants.

Discussion

Study 1: ACT group showed:

- improvement in overall symptom severity,
- the participant's ability to regulate their emotional reactions,
- decrease in anxiety symptoms
- and increased treatment compliance - help-seeking.

Study 2:

- Three different outcome clusters or profiles emerged, reflecting different clinical characteristics of participants. Two distinct groups benefitted from the ACT treatment group in different ways. Participants in Profile 1 gained more acceptance and lowered their anxiety levels more than the other profiles, while participants in Profile 3 had the highest change scores on overall psychiatric symptoms (BPRS) and Help-seeking with a moderate change on Anxiety and Acceptance. Those in Profile 2 had the least amount of change in terms of the treatment variables but attended the least number of sessions.
- The severity of childhood trauma did not have an impact on the improvement variables.
- Number of sessions and an avoidant attachment style - explain significant differences between the profiles.

Future directions:

- This treatment, which has different underlying assumptions may be better suited to this clientele- tx resistant? (see Harris, 2006 for more details).
- ACT could also help with those with psychosis and comorbid issues – CBT could be offered for symptoms
- More studies needed to better understand how attachment styles and attendance influence outcomes – but these are important to consider.

Results:

Study 1 - Random coefficient analyses (RCA's) to assess whether ACT vs. TAU over time showed improvement (See Table 1).

Study 2 - Aim 1: (n=50) We used a series of four RCAs using Group, Time, and CTQ as predictors of change between T1 and T2 (Heck, Thomas, & Tabata, 2010, 2012). See Table 2.

Aim 2: (n=30 - participants receiving the ACT intervention)

- Two-step hierarchical cluster analysis – using T1 to T2 change scores (see Table 3)
- These profiles compared for severity of childhood trauma in each of the five CTQ subscales using Chi-square analyses (see Table 4).
- A multinomial logistic regression was used to predict cluster membership with other predictors (total CTQ score, attachment, a measure of mindfulness, number of sessions attended and age) (see Table 5).

Table 3 – Cluster Profiles

	Cluster 1	Cluster 2	Cluster 3
No of sessions	7.2 (1.2)	5.0 (1.1)	7.2 (0.7)
Avoidant attachment	50.5 (8.3)	60.0 (9.2)	63.8 (12.4)
Preoccupation/Anxiety	30.7 (7.4)	37.5 (8.6)	36.4 (9.5)
Acceptance - CERQ	5.2 (4.4)	0.5 (1.8)	1.2 (3.9)
Anxiety - GAD	-5.0 (2.6)	0.2 (1.5)	-4.0 (2.5)
Symptoms - BPRS	0.5 (0.8)	0.5 (1.7)	-10.3 (3.6)
Compliance – Help seeking	-1.2 (1.0)	-0.3 (1.8)	-1.9 (1.0)

Table 4.

CTQ Subscale	Cluster 1	Cluster 2	Cluster3	Chi-Squared (X ²)
Emotional Abuse				
Low	33.3	27.3	53.8	
High	66.7	72.7	46.2	1.9
Physical Abuse				
Low	50.0	36.4	61.5	
High	50.0	63.6	38.5	1.5
Sexual Abuse				
Low	50.0	27.3	38.5	
High	50.0	72.7	61.5	0.9
Emotional Neglect				
Low	33.3	54.5	46.2	
High	66.7	45.5	53.8	0.7
Physical Neglect				
Low	50.0	27.3	53.8	
High	50.0	72.7	46.2	1.8

Table 5. Regression for the variables used as outcomes – which variables predicted cluster differences.

	B	df	Wald	Sig.
Intercept	31.15	2	0.17	0.14
Age	29.93	2	0.07	0.26
No. of sessions	49.58	2	4.02	0.00*
Mindfulness	27.44	2	0.91	0.91
Avoidance	33.81	2	2.01	0.04*
Preoccupation/Anxiety	31.10	2	2.02	0.15
Trauma	28.65	2	0.22	0.50