Psychological intervention for PTSD and comorbid substance and alcohol use disorders (SUD)

Neil Roberts

GIG CYMRU
NHS WALES

Bwrdd Iechyd Prifysgol Caerdydd a'r Fro
Cardiff and Vale University Health Board

SUD populations.

- High levels of trauma exposure
- PTSD lifetime prevalence
  - Range 26-52%
- PTSD current prevalence
  - Range 15-42%

"Decisions" by Valerie Patterson

- Cottler 1992 AJP; Dragan 2007 Addictive Behaviours; Driessen 2008 Alcoholism; Helzer 1987 NEJM; Mills 2006 AJP; Reynolds 2005 Drug & Alc Dep; Schäfer 2010

PTSD Populations

- Comorbid substance abuse
  - Range 19-35%
- Comorbid alcohol abuse
  - Range 36-52%

James Huntley

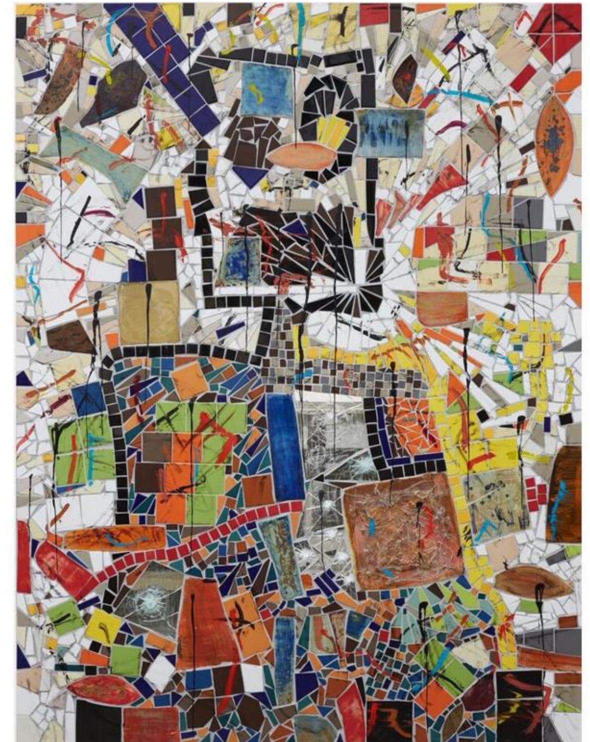
- Breslau 1992; Kessler 1995; Mills 2006 AJP; Pietrzak 2011

Vulnerable populations

Common issues and challenges

- Complex histories
  - multiple traumas and adverse event
- Complex presentations
  - multiple problems and comorbidities
  - often physical and cognitive impairment
  - homelessness, violence, suicidal ideation
- Case management needs
  - E.g. housing, access to health care, criminal justice system, risk management

- Where do we start?
- Fear of making things worse
- Uncertainty about the need for abstinence
- Uncertainty about the evidence
  - AUD & SUD frequent exclusions from RCTs



Rashid Johnson

VA/DOD CLINICAL PRACTICE GUIDELINE FOR THE MANAGEMENT OF POSTTRAUMATIC STRESS DISORDER AND ACUTE STRESS DISORDER

Sequential treatment approach

Addiction service

CMHT/ Traumatic Stress Clinic

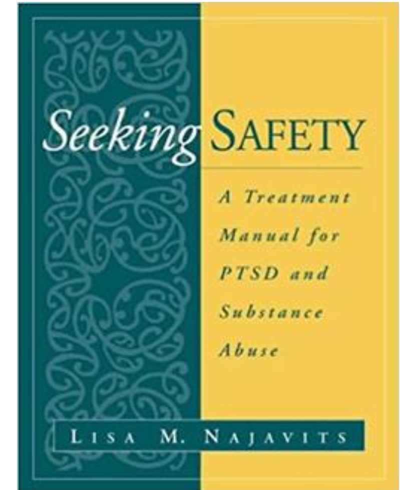
Sequential treatment approach

Addiction service

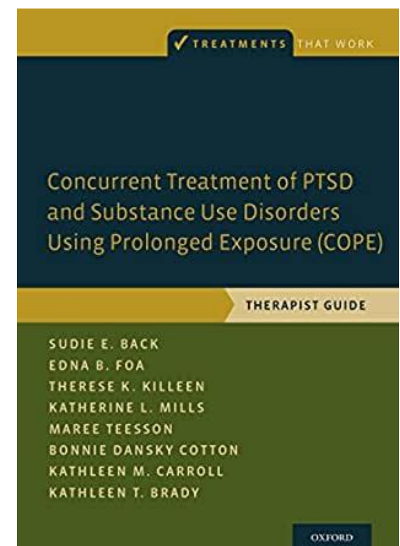
CMHT/ Traumatic Stress Clinic

Combined/ integrated approaches

- Present focused - non trauma focused
  - Coping skills based (e.g. Seeking Safety)
  - Cognitive restructuring (e.g. ICBT McGovern 2015)



- Past focused
  - Exposure based (e.g. PE, COPE)



General Session Overview

Session #	Session Topic
1	Introduction: Psychoeducation, Set Goals, Therapy Contract, Breathing Retraining
2	PTSD: Common Reactions to Trauma SUD: Awareness of Cravings
3	PTSD: In Vivo Hierarchy SUD: Managing Cravings
4	PTSD: First Imaginal Exposure SUD: Review coping skills

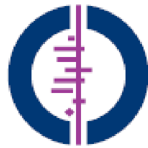
With acknowledgement to Sudie Back

General Session Overview *continued*

Session #	Session Topic
5	PTSD: Imaginal Exposure continued SUD: Planning for Emergencies
6	PTSD: Imaginal Exposure continued SUD: Awareness of High-Risk Thoughts
7	PTSD: Imaginal Exposure continued SUD: Managing High-Risk Thoughts
8	PTSD: Imaginal Exposure continued SUD: Refusal Skills

General Session Overview *continued*

Session #	Session Topic
9	PTSD: Imaginal Exposure continued SUD: Seemingly Irrelevant Decisions
10	PTSD: Imaginal Exposure continued SUD: Awareness of Anger
11	PTSD: Imaginal Exposure continued SUD: Managing Anger
12	Review and Termination



Cochrane Database of Systematic Reviews

Psychological therapies for post-traumatic stress disorder and comorbid substance use disorder (Review)

Roberts NP, Roberts PA, Jones N, Bisson JI

Clinical Psychology Review 38 (2015) 25–38

Contents lists available at ScienceDirect

Clinical Psychology Review

Psychological interventions for post-traumatic stress disorder and comorbid substance use disorder: A systematic review and meta-analysis

Neil P. Roberts [a,b,*], Pamela A. Roberts [b,c], Neil Jones [c], Jonathan I. Bisson [a]

Development of expert recommendations for the treatment of PTSD with comorbid substance use disorder (SUD)

- Working group
  - with Ingo Schäfer & Annett Lotzin
- Two-stage process:
  1. Completion of a systematic review and meta-analysis
  2. Collate consensus recommendations made in trusted methodologically rigorous treatment guidelines and expert guidance publications.

Scoping questions

1. Specific comorbid psychological interventions vs TAU for SUD only
   - Present focused therapies
   - Trauma focused therapies
   - integrated cognitive restructuring interventions
   - Other trauma focused approaches??

2. Head to head comparisons

3. Sequential vs integrated approaches

Key inclusion criteria

- RCTs testing psychological intervention
- PTSD and/ or SUD primary target for treatment
- Diagnosis of PTSD and SUD
- Interventions for adults and children and adolescents

Outcomes

- PTSD severity
- SUD usage
- Alcohol usage
  - Post treatment
  - 3-5 months
  - 6 months +
- PTSD diagnosis
- SUD diagnosis
- Leaving treatment prematurely
- Adverse events

Completion of search

- 27 studies
- Only one for children and adolescents
  - Najavits et al. 2006
- 1 study on order of intervention
  - Kehle-Forbes et al. 2019

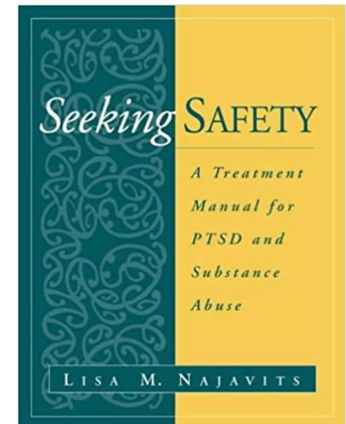
Demographics

- 9 studies of military veterans – mostly male
- 6 studies female only (Seeking Safety)

- Most studies ethnically diverse with participants from lower socioeconomic groups

KEY FINDINGS

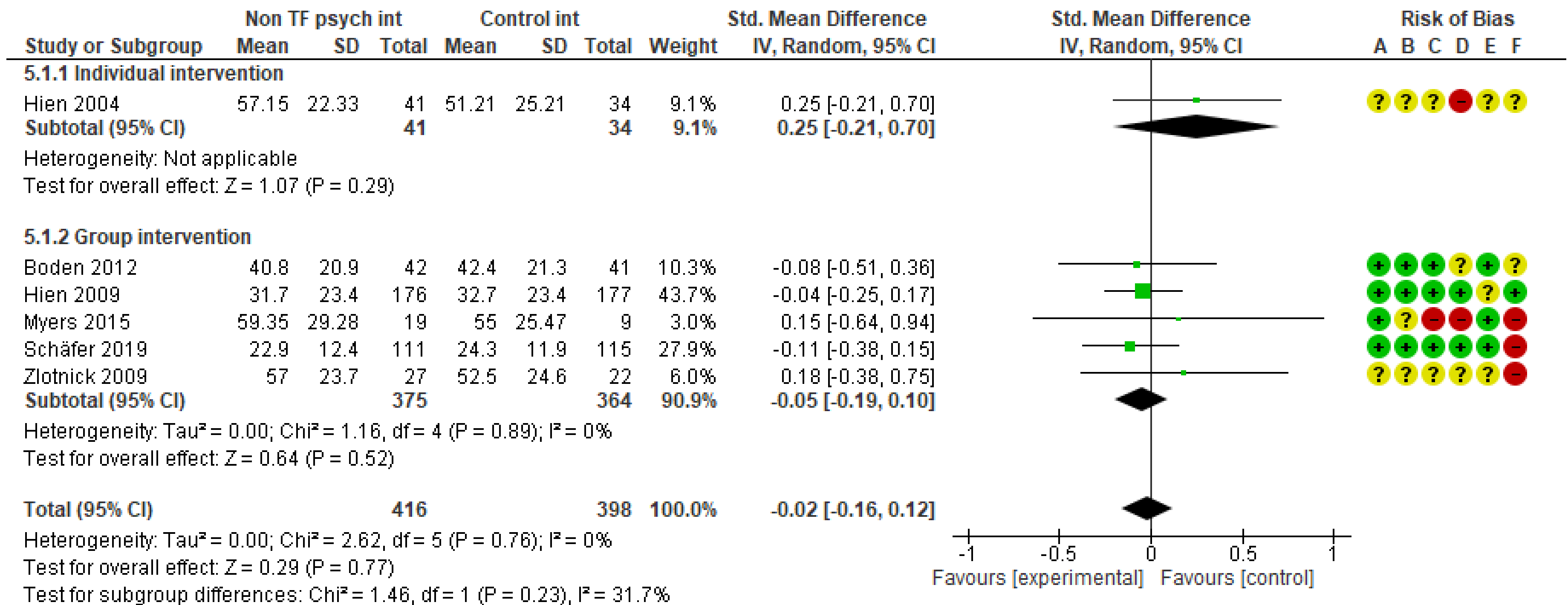
Present focused approaches vs TAU for SUD only



- Coping skill focused
- 8 studies
  - Mostly based on Seeking Safety
- Most studies report improvement in active and control condition
- No benefits over control for PTSD, alcohol or drug use at any time point

Presented focused therapy + TAU for SUD vs t'ment for SUD only

PTSD post treatment



Study or Subgroup	Non TF psych int Mean	Non TF psych int SD	Non TF psych int Total	Control int Mean	Control int SD	Control int Total	Weight	Std. Mean Difference IV, Random, 95% CI	A	B	C	D	E	F
5.1.1 Individual intervention														
Hien 2004	57.15	22.33	41	51.21	25.21	34	9.1%	0.25 [-0.21, 0.70]	?	?	?	-	?	?
Subtotal (95% CI)			**41**			**34**	**9.1%**	**0.25 [-0.21, 0.70]**						
Heterogeneity: Not applicable														
Test for overall effect: Z = 1.07 (P = 0.29)														
5.1.2 Group intervention														
Boden 2012	40.8	20.9	42	42.4	21.3	41	10.3%	-0.08 [-0.51, 0.36]	+	+	+	?	+	?
Hien 2009	31.7	23.4	176	32.7	23.4	177	43.7%	-0.04 [-0.25, 0.17]	+	+	+	+	?	+
Myers 2015	59.35	29.28	19	55	25.47	9	3.0%	0.15 [-0.64, 0.94]	+	?	-	-	+	-
Schäfer 2019	22.9	12.4	111	24.3	11.9	115	27.9%	-0.11 [-0.38, 0.15]	+	+	+	+	+	-
Zlotnick 2009	57	23.7	27	52.5	24.6	22	6.0%	0.18 [-0.38, 0.75]	?	?	?	?	?	-
Subtotal (95% CI)			**375**			**364**	**90.9%**	**-0.05 [-0.19, 0.10]**						
Heterogeneity: Tau² = 0.00; Chi² = 1.16, df = 4 (P = 0.89); I² = 0%														
Test for overall effect: Z = 0.64 (P = 0.52)														
Total (95% CI)			**416**			**398**	**100.0%**	**-0.02 [-0.16, 0.12]**						
Heterogeneity: Tau² = 0.00; Chi² = 2.62, df = 5 (P = 0.76); I² = 0%														
Test for overall effect: Z = 0.29 (P = 0.77)														
Test for subgroup differences: Chi² = 1.46, df = 1 (P = 0.23), I² = 31.7%														

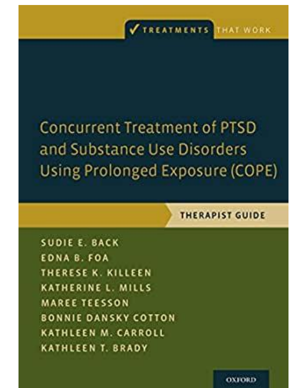
Risk of bias legend
(A) Random sequence generation (selection bias)
(B) Allocation concealment (selection bias)
(C) Blinding of outcome assessment (detection bias)
(D) Incomplete outcome data (attrition bias)
(E) Selective reporting (reporting bias)
(F) Other bias

All studies based evaluating Seeking Safety

Cognitive restructuring based approaches vs TAU for SUD only

- 4 studies
  - 3 based on ICBT (e.g. McGovern et al)
- No benefits over control for PTSD, alcohol or drug use at any time point
- Subgroup analysis ICBT PTSD post-treatment
  - K=3; N=263; SMD -0.33 CI -0.62, -0.04

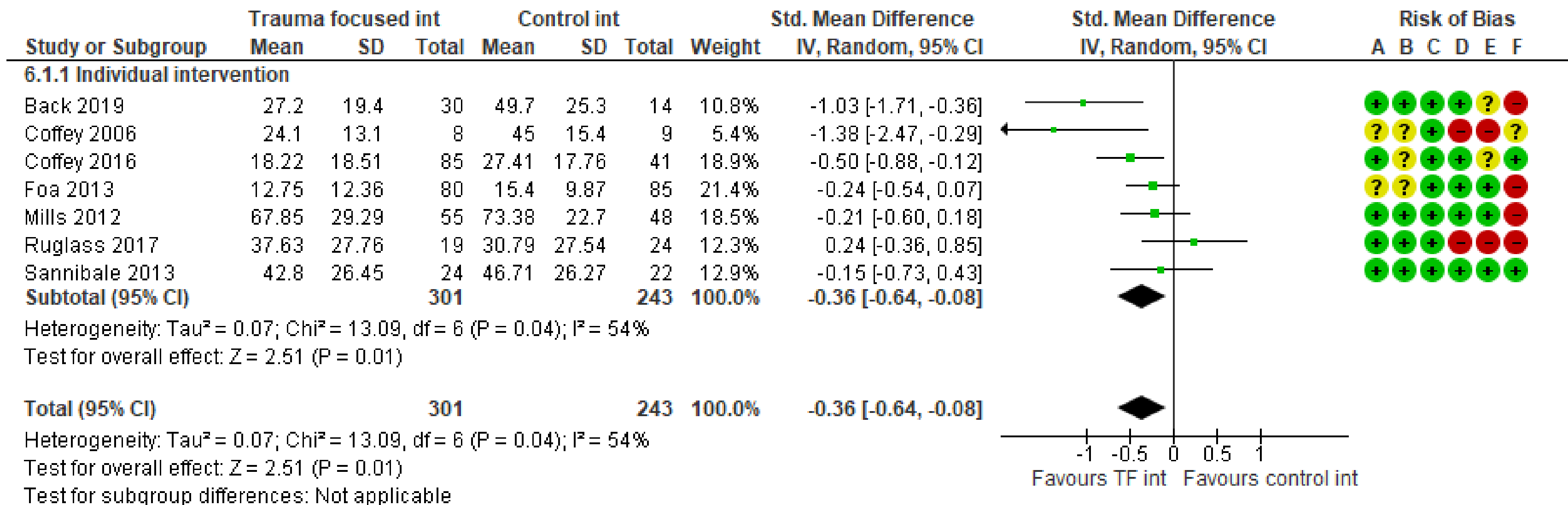
Past focused approaches vs TAU for SUD only



- 7 studies
  - All based on a PE approach
- Benefits on PTSD:
  - post treatment (k=7; n=544; SMD -0.36; CI -0.64 to -0.08)
  - 6+ months (k=5; n=469; SMD -0.48; CI -0.81 to -0.15)
- No benefits for drug use at any time point
- Only benefit for alcohol use at 6+ months
  - (k=4; n=363; SMD -0.23; CI -0.44 to -0.02)
- Heterogeneity

Past (trauma) focused therapy + TAU for SUD vs t'ment for SUD only

PTSD post treatment



Study or Subgroup	Trauma focused int Mean	SD	Total	Control int Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	A	B	C	D	E	F
6.1.1 Individual intervention														
Back 2019	27.2	19.4	30	49.7	25.3	14	10.8%	-1.03 [-1.71, -0.36]	+	+	+	+	?	-
Coffey 2006	24.1	13.1	8	45	15.4	9	5.4%	-1.38 [-2.47, -0.29]	?	?	+	-	-	?
Coffey 2016	18.22	18.51	85	27.41	17.76	41	18.9%	-0.50 [-0.88, -0.12]	+	?	+	+	?	+
Foa 2013	12.75	12.36	80	15.4	9.87	85	21.4%	-0.24 [-0.54, 0.07]	?	?	+	+	+	-
Mills 2012	67.85	29.29	55	73.38	22.7	48	18.5%	-0.21 [-0.60, 0.18]	+	+	+	+	+	-
Ruglass 2017	37.63	27.76	19	30.79	27.54	24	12.3%	0.24 [-0.36, 0.85]	+	+	+	-	-	-
Sannibale 2013	42.8	26.45	24	46.71	26.27	22	12.9%	-0.15 [-0.73, 0.43]	+	+	+	+	+	+
Subtotal (95% CI)			**301**			**243**	**100.0%**	**-0.36 [-0.64, -0.08]**						
Total (95% CI)			**301**			**243**	**100.0%**	**-0.36 [-0.64, -0.08]**						

Subtotal: Heterogeneity: $Tau^2 = 0.07$; $Chi^2 = 13.09$, $df = 6$ ($P = 0.04$); $I^2 = 54\%$
Test for overall effect: $Z = 2.51$ ($P = 0.01$)

Total: Heterogeneity: $Tau^2 = 0.07$; $Chi^2 = 13.09$, $df = 6$ ($P = 0.04$); $I^2 = 54\%$
Test for overall effect: $Z = 2.51$ ($P = 0.01$)
Test for subgroup differences: Not applicable

Risk of bias legend

(A) Random sequence generation (selection bias)
(B) Allocation concealment (selection bias)
(C) Blinding of outcome assessment (detection bias)
(D) Incomplete outcome data (attrition bias)
(E) Selective reporting (reporting bias)
(F) Other bias

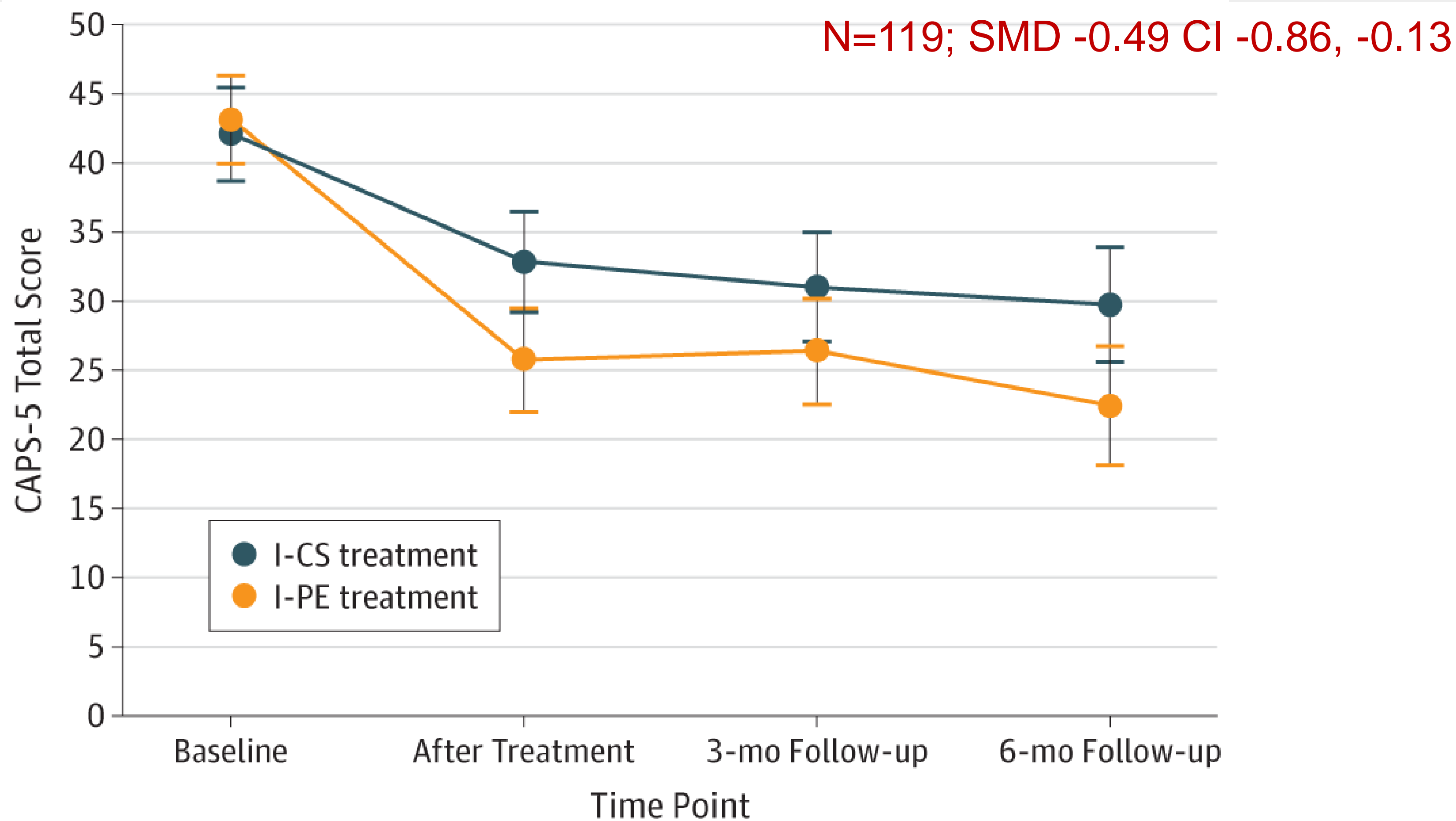
All studies based evaluating a form of prolonged exposure

Other findings

- High drop-out across studies
- No studies based on EMDR, CT, NET, STAIR
- Evidence that COPE superior to Seeking Safety
  - PTSD post treatment and 6 months, but not at 3 months
- Some evidence that incentivisation improves attendance (Schacht et al. 2017)
- Order of treatment not adequately tested

From: **Efficacy of Integrated Exposure Therapy vs Integrated Coping Skills Therapy for Comorbid Posttraumatic Stress Disorder and Alcohol Use Disorder: A Randomized Clinical Trial**

Norman et al, JAMA Psychiatry. 2019.



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Conclusions

- High drop-out across studies
- Little evidence for children and adolescents
- There is little evidence for the benefit of *present* focused approaches beyond treatment for SUD alone
- Some evidence of some benefit for *past focused* approaches for adults
  - Small effects
- GRADE: Quality of the evidence very low *and very likely to change*

SO WHERE DOES THAT LEAVE US?

- Routine screening for trauma hx & PTSD in addiction services
- Routine screening drug and alcohol use for those with PTSD
- Comprehensive assessment
- Intervention based on individual formulation
  - Current stressors and triggers
  - Mutual maintaining factors & symptom interactions
- We should be considering TF intervention with service users BUT …
- Clinical judgement
  - SU preference
  - Readiness

Key therapeutic goals for trauma processing

- Therapeutic window – being sufficiently emotionally and cognitively available to engage in, and remain in processing
- Helping the service user to stay sufficiently motivated to persevere

- Vital that SUs understanding what TF approaches involve
  - transparent about the evidence
  - Pros and cons of trying treatment
  - planning around possible risks is undertaken
- Psych’ed aimed at developing an understanding between PTSD and SUD may help engagement
- Stabilisation based preparation work or case management work may be necessary
- Motivational Interviewing - harm reduction
- Abstinence vs controlled usage
  - Collaborative decisions about goals
  - Does the individual have sufficient control to minimize risk of major relapse?

Future research

- Better understanding of the causes of drop-out and predictors of symptom improvement
  - Project Harmony
- Other approaches
  - E.g. EMDR, CT for PTSD
    - COPE adaptations?
- Use of peer support
- Intensive treatments

Thank you for listening

RobertsNP1@ Cardiff.ac.uk

https://www.crd.york.ac.uk/prospero/display_record.php?ID=CRD42020207840