

ENHANCING THE ACCEPTABILITY OF CBT FOR ANXIETY DISORDERS AND RELATED PROBLEMS

SAFETY BEHAVIOUR REVISITED

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I am grateful to...

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- Stella Marie Paradisis
- Nicole Hallonda Price
- Jeff Renaud
- Anna Rowe
- Shana Rowen
- Laura Rudy
- Amanda Ruthman
- Melissa Saxe
- Christine Senn
- Lisa Serravalle
- Laurie Tracy
- Sebastien Tremblay
- Aileen Vivan
- Melody Walters
- Megan Wood
- Sarah Zullo

Volunteers



Enhancing the acceptability of CBT

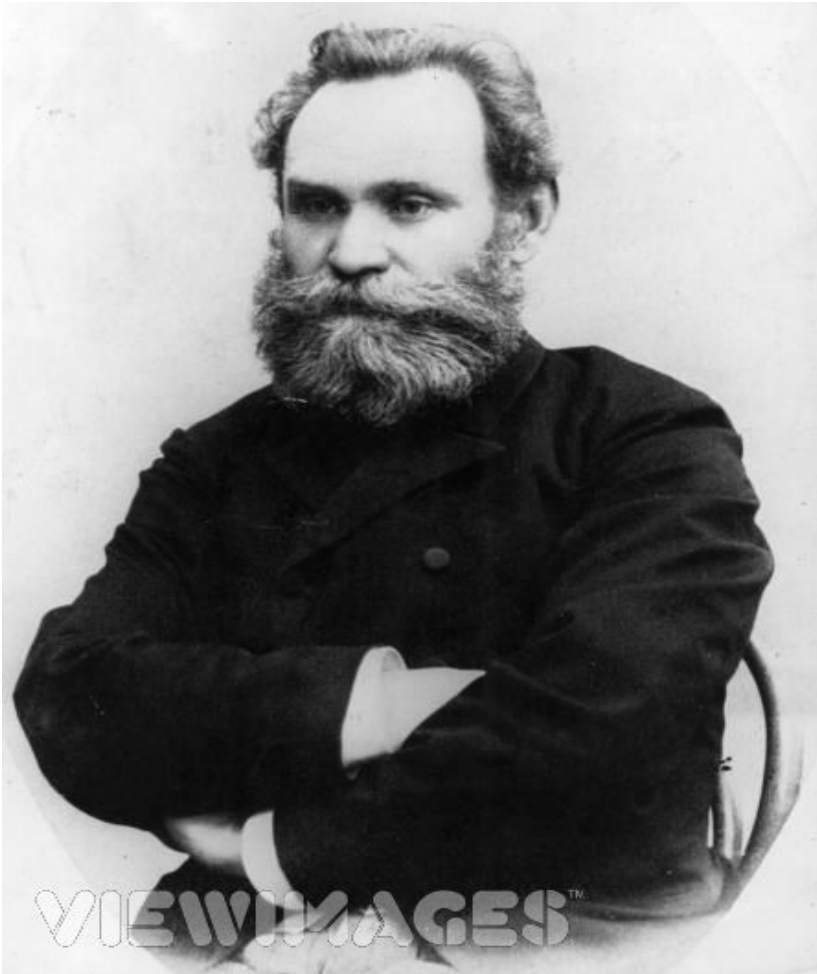
- History
 - What is the problem?
 - Why is it important?
- Cognitive, Behavioural approaches
- Safety behaviour reconceptualized
- Clinical implications
- Future directions

HISTORY

History

- Our roots are in the history of learning and behaviour change
- Exposure works (impressively well)
 - Cognitive therapy works too
- CBT works for an immense range of problems
 - Evidence shows it to be robustly effective at reducing the symptoms of a surprisingly wide variety of psychological and physiological problems

History



Ivan Petrovich Pavlov

1849-1936

- Our history comes from the science of learning and behaviour change
- Identified factors involved in classical conditioning
- Experimental method
 - Animal model
- Induced experimental neuroses
 - Lasting effect
- Sadly, he did not apply his work to treatment

A behavioural theory & therapy

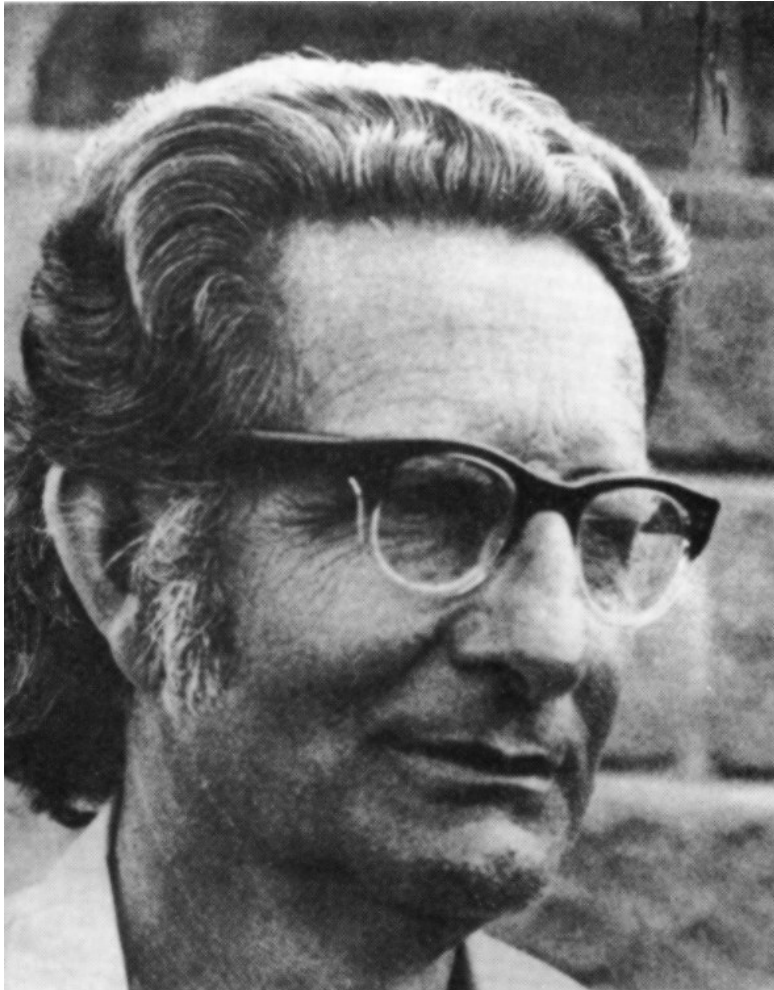


Joseph Wolpe

1915-1997

- Working first with cats at Witswatersrand University
- Experimentally induced neurotic cats were soothed by feeding
- Developed theory of reciprocal inhibition
- Was foundation for systematic desensitization

Evidence base?



Hans Jürgen Eysenck

1916-1997

- Psychotherapy ineffective
 - Big problem!
- Link between science and practice
 - A strong advocate for behaviour therapy
 - Happened to meet Wolpe during his visit to London
- Other approaches should also be based on this link

Behavioural theory & therapy for anxiety disorders (the 'B' in CBT)

- **THEORY:** Problems are negatively reinforced by both overt and subtle avoidance (e.g., distraction)
- **PRACTICE:** Therapists use both *in vivo* and imaginal exposure along a graded hierarchy
 - Highly effective for EVERY anxiety disorder
- **BUT:** Unsupported (and disproven) guidelines for exposure often make it unnecessarily difficult
 - This may be changing (e.g., Craske et al., 2008)
 - ...but we still don't know how exposure works
- **AND:** many therapists don't like using exposure (e.g., Becker, 2004; Zayfert & Becker, 2000)

Cognitive theory & therapy for anxiety disorders (the 'C' in CBT)

- **THEORY:** It's not what happens to you; it's what you make of it. Problems are maintained by maladaptive beliefs, interpretations and other cognitions
- **PRACTICE:** Help clients come to alternate way(s) of understanding their thoughts, sensations, environments (collect evidence, examine beliefs, etc.)
- **BUT:** Cognitive therapy is arguably more challenging for therapists, may have implications for training
- **AND:** Some clients deny the presence of maladaptive cognitions

Treatment development, Understanding mechanisms

- *HOW* does CBT work?
 - If you can emphasize active mechanisms, outcome should be better
- Early studies on the spontaneous decay of fears and compulsive urges
 - (Likierman & Rachman, 1980; Rachman, de Silva & Röper, 1976)
- Emotional Processing
 - (Rachman, 1980; Foa & Kozak, 1984)
- Inhibitory Learning
 - (e.g., Craske, et al., 2008; Abramowitz, 2013)
- Cognitive Change
 - (e.g., Beck, 1991; Hofmann, Asmundson & Beck, 2013)
- *ALL* of the above underscore Eysenck's emphasis on connecting the laboratory to the clinic

There were many debates over the years (...and many still continue)

With OCD as an example:

- Which is better?
 - E.g., Butler et al., 2006; Cottraux et al., 2001; Emmelkamp & Beens, 1991; McLean et al., 2001; Olatunji et al., 2013; Öst et al., 2015; Van Balkom et al., 1994; Van Oppen et al., 1995; Whittal et al., 2005
- In the end, whether you take a behavioural, cognitive, or a combined approach, you are likely to be an effective therapist
 - Evidence continues to emerge for ACT, Mindfulness-based approaches
- This means that therapists have choices, and choice is great!

BUT, *how* is it applied?

- Some experienced (and even inexperienced) therapists apply the techniques of CBT with empathy and compassion
- Many apply it in a cognitive context
 - “It’s not what happens to you; it’s what you make of it.”
- During particularly challenging exercises,
 - “I know that this is difficult, but stick with it and you’ll see that it gets easier.”

We have focused so much on outcome,

- “CBT is not easy”
- Even though the treatment is effective, it is not always acceptable to patients and clients
 - Tolerability and compliance
 - What awful terms!

We forgot to focus on acceptability

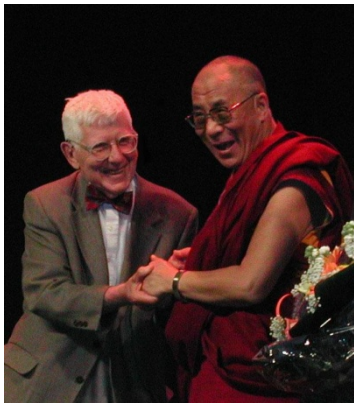
- Foa et al. (2005 example)
 - Intent-to-treat analysis, responders
 - 62% ERP, 42% Clomipramine, 70% Combo, 8% Placebo
 - 37 enrolled
 - 8 dropped out when assigned to ERP condition & 8 dropped out during ERP
 - So, 16/37 (43%) did not complete ERP treatment
- Dropouts from a generalist CBT service = 43.8% of clientele
 - Bados, Balaguer & Saldaña (2007)
- Attrition rates for OCD do seem to be higher for ERP compared to CT (Öst et al., 2015)
- Many therapists prefer not to use it
 - (Addis & Krasnow, 2000; Addis, Wade & Hatgis, 1999)
- We are not effectively delivering effective treatment

What do therapists say?

- “I don’t like making my client feel too anxious”
- “I prefer integrative therapy because it feels nicer”
- “I didn’t go into this field to make people suffer”
- “If I see that exposure is upsetting my patient, we’ll take a break and talk about early developmental crises”
- “I wish that behaviour therapy for anxiety disorders didn’t have so much exposure in it”

We need a solution

- CBT is *not* a cruel treatment,
 - but we can assess whether a gentler, kinder form of the treatment is effective and acceptable



Developments in cancer and HIV treatments

- Early vs. newer chemotherapy drugs in terms of effectiveness & of side effects
 - Goldin & Mantel, 1957; Burish & Jenkins, 1992; Dodd & Mood, 1981
- Progression of treatments for HIV
 - Kirschner, Lenhart & Serbin, 1997; Catz et al., 2000
- Initially, it was critical to discover effective treatments
- Once these were found, it was **just as critical** to reduce side effects, and (ideally) further increase efficacy
- We can take a similar approach in CBT
 - Requires some innovation

SAFETY BEHAVIOUR

A reconceptualization

Safety Behaviour

- Actions, thoughts, protective objects used by anxious individuals to prevent or minimize feared catastrophe
 - Overt & covert safety behaviour
- Proposed effect of preventing threat disconfirmation through a misattribution of safety if you're a cognitivist (Salkovskis, 1991)
- OR, if you're a behaviourist, SB is 'bad' because it reduces anxiety during exposure, or because it reduces the expectancy gap optimal for inhibitory learning
- A large number of studies have shown that use of SB interferes with treatment success (e.g., agoraphobia - Salkovskis et al., 1999; claustrophobia – Sloan & Telch, 2002; social anxiety disorder – Kim, 2005)

Normative SB

- How many of you would carry an umbrella with you when the probability of rain is $\geq 30\%$?
 - How many of you always (or almost always) carry an umbrella?
- How many would rehearse/practice a conference talk?
- How many check your hair in the mirror before leaving?
- Ask a partner or friend about what you're wearing?
- Look away during a scary movie, or an inoculation?

- These are all examples of safety behaviour

SB in CBT

- Unfortunately, many CBT therapists insist on eliminating SB ASAP
 - “SB is countertherapeutic”
 - “You must not engage in SB”
 - “Sit with your discomfort”
- **A cognitively-based reconceptualization** (Parrish, Radomsky & Dugas, 2008; Rachman, Radomsky & Shafran, 2008)
 - The judicious use of SB might
 - Facilitate approach behaviour
 - Enhance the client’s ability to acquire disconfirming information
 - Enhance perceptions of control
 - Make CBT more acceptable

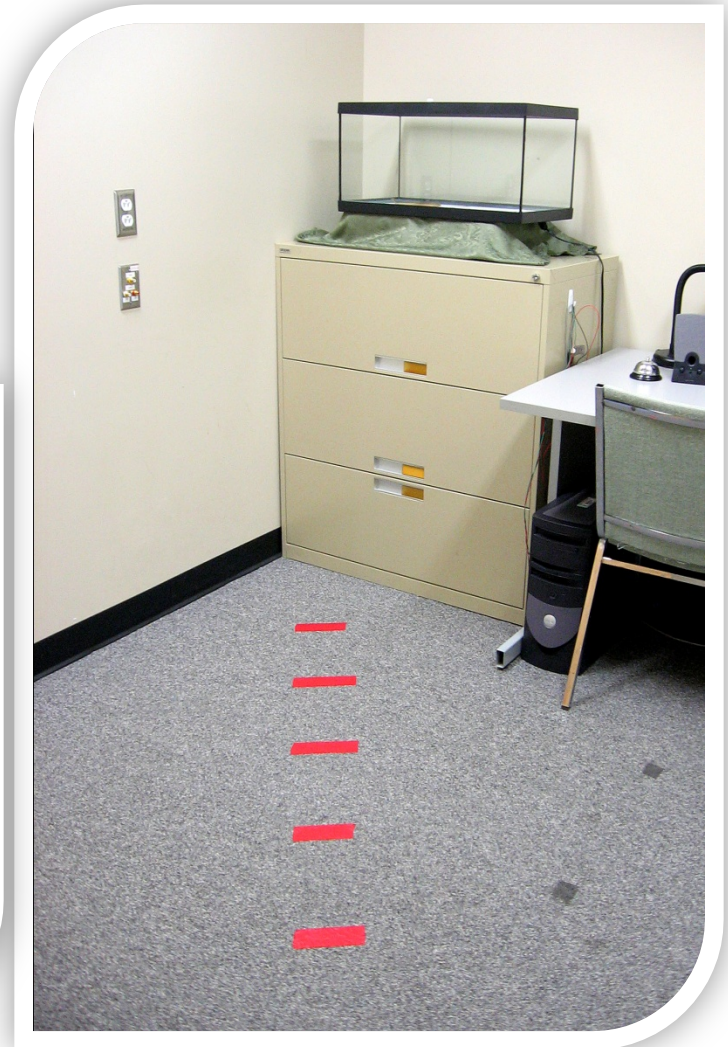
(Not a new idea, btw...)

- “Response induction aids” facilitated better treatment outcome for snake phobia
 - Bandura, Jeffrey & Wright (1974)
- The option to escape during BT for agoraphobia led to better outcome than standard BT
 - de Silva & Rachman (1984); Rachman, Craske, Tallman & Solyom (1986)

Does SB interfere with treatment?

- Concordia undergraduates and members of the community
 - (n = 62)
- “very much fear” or “terror” of snakes
- Safety behaviour (SB) condition: 25 F, 6 M
- Control condition: 23 F, 8 M
- Mean age 26.08 yrs

Fear Stimulus and Therapy Room

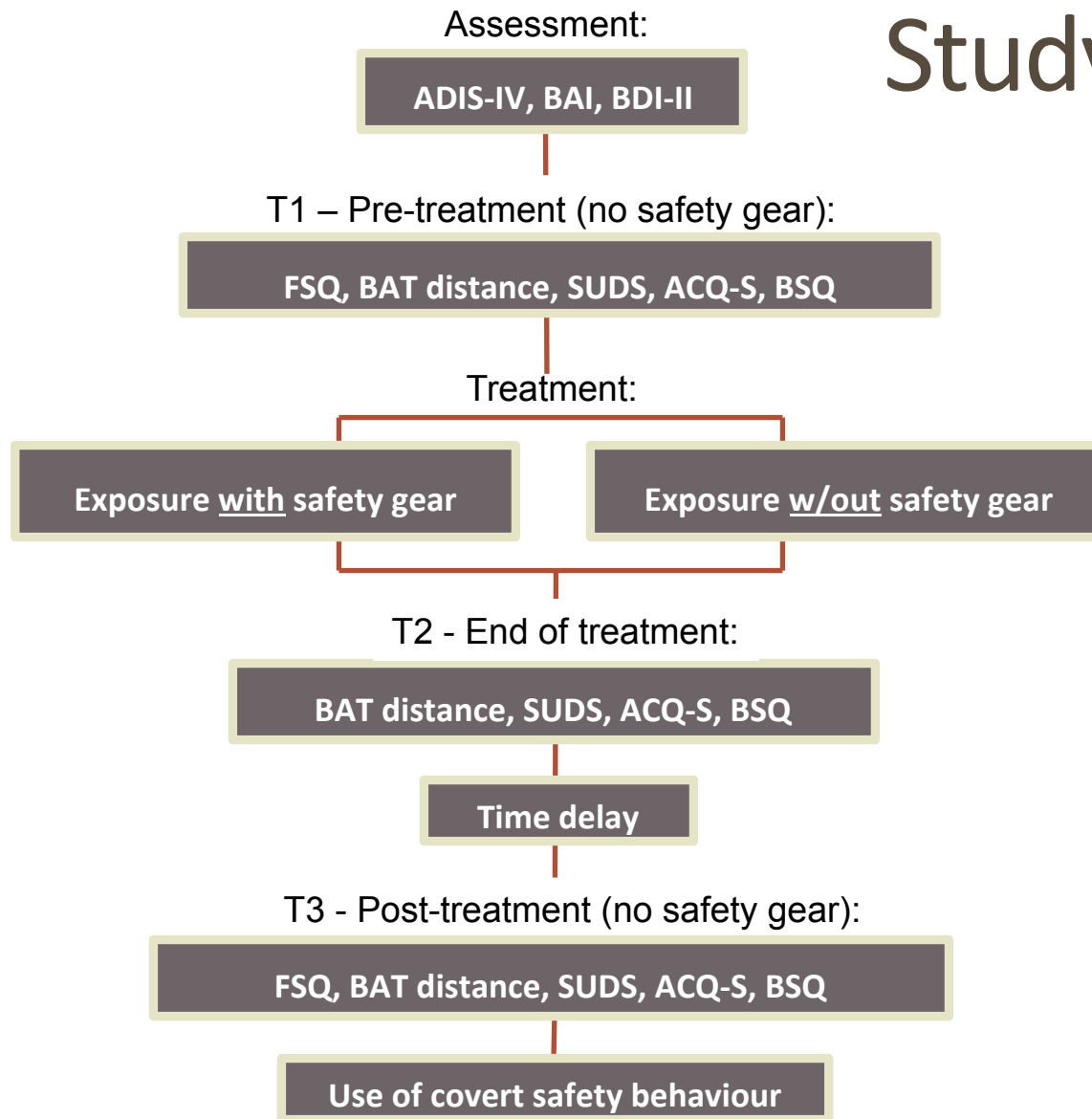


Safety Gear



“Protective gear commonly used by people who handle snakes.”

Study Design

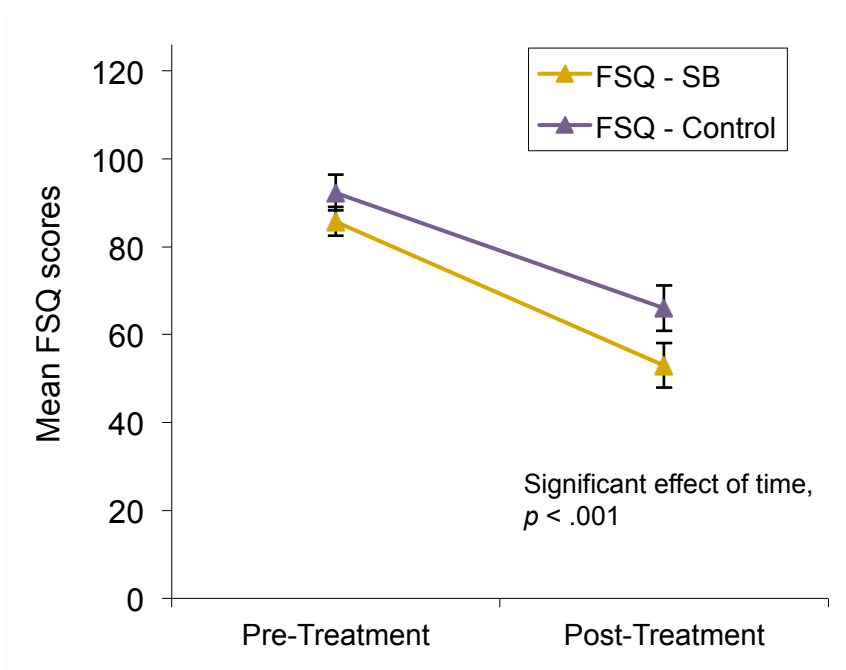


Treatment

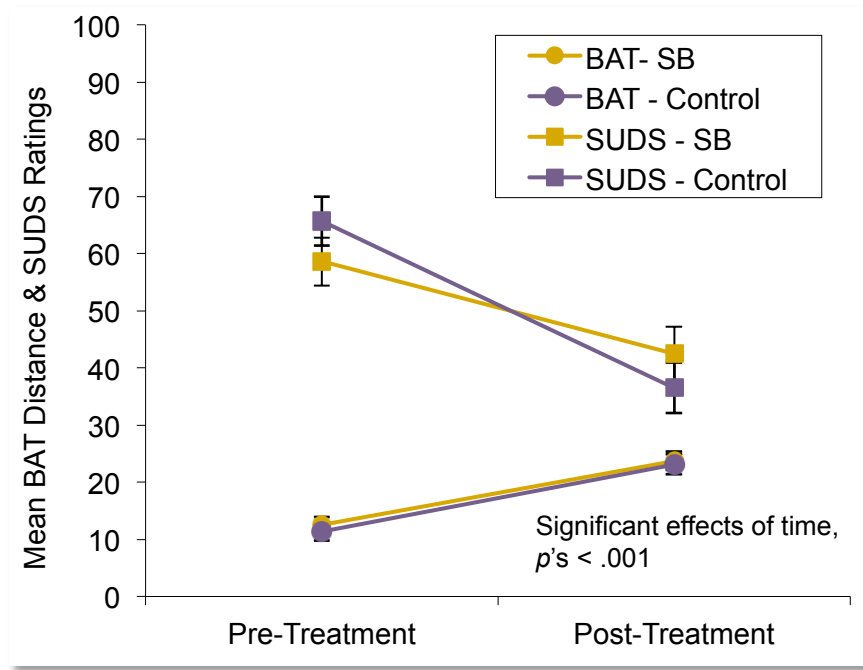
- 45-min graduated *in vivo* exposure
- 33-point hierarchy:
 1. Standing outside therapy room with door closed ...
 33. Holding the snake
- At participants' own pace
- SUDS ratings and distance from snake recorded at 5 minute intervals

Treatment Outcome

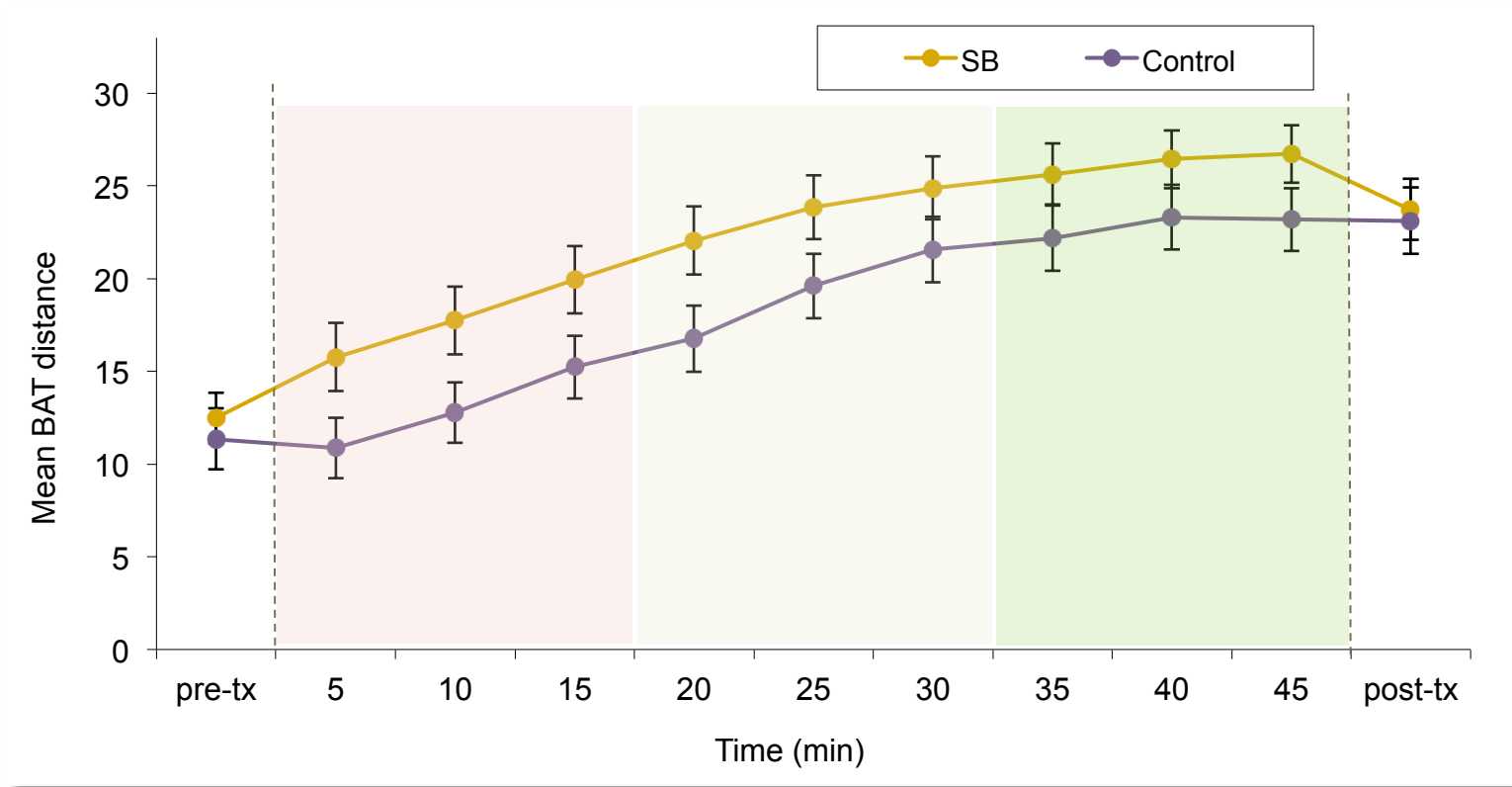
Fear of Spiders Questionnaire



SUDS Ratings & BAT Distance

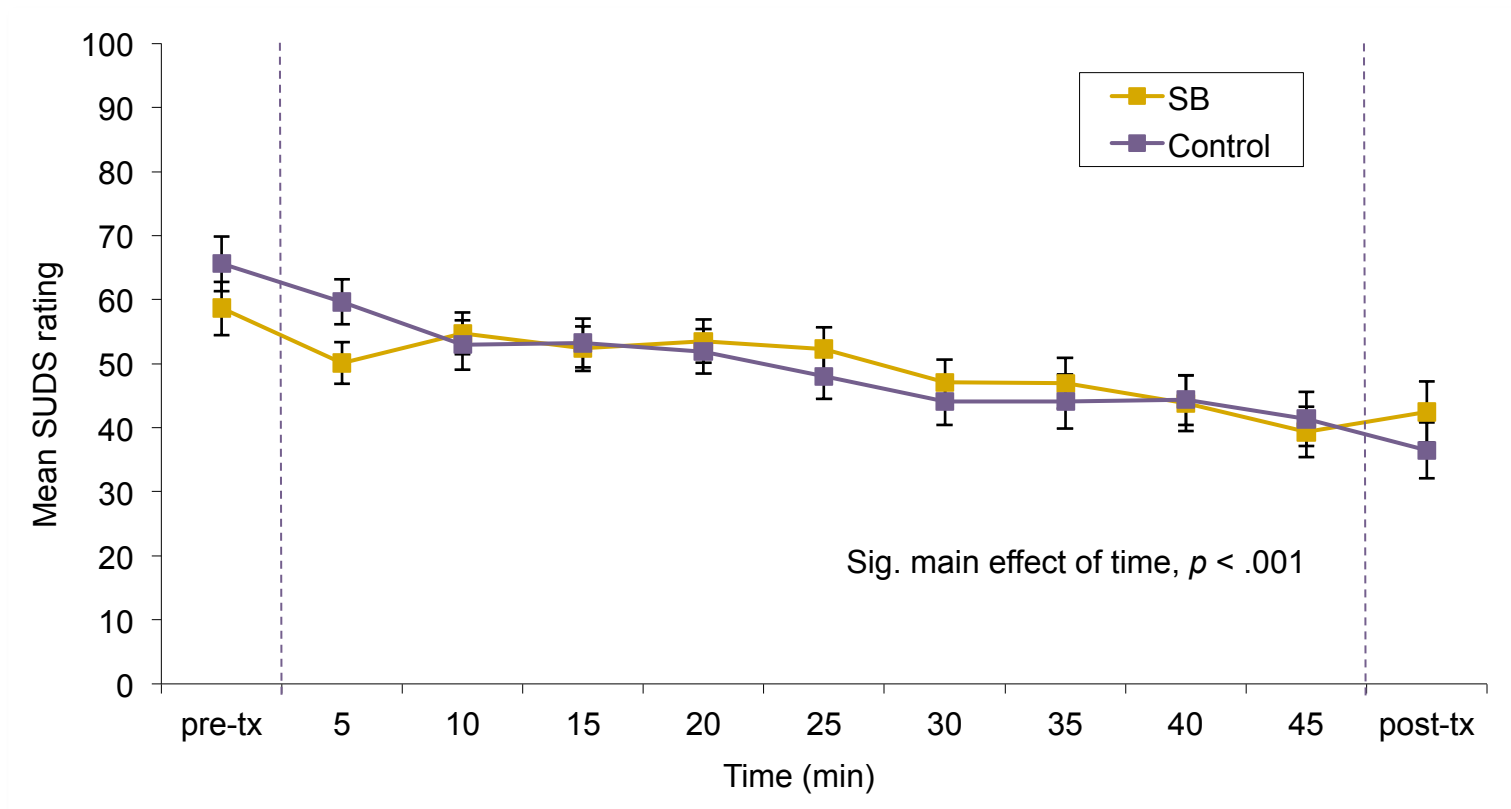


Approach Behaviour During Session



Significant difference during **early phase**, marginal during **second phase**, and n.s. during **third phase**

SUDS Ratings During Session



A replication

Behaviour Research and Therapy 48 (2010) 1161–1169



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Contents lists available at ScienceDirect

Behaviour Research and Therapy

journal homepage: www.elsevier.com/locate/brat



Effects of safety behaviors on fear reduction during exposure

Heather K. Hood, Martin M. Antony*, Naomi Koerner, Candice M. Monson

Department of Psychology, Ryerson University, 350 Victoria Street, Toronto, Ontario M5B 2K3, Canada

A focus on cognitive change

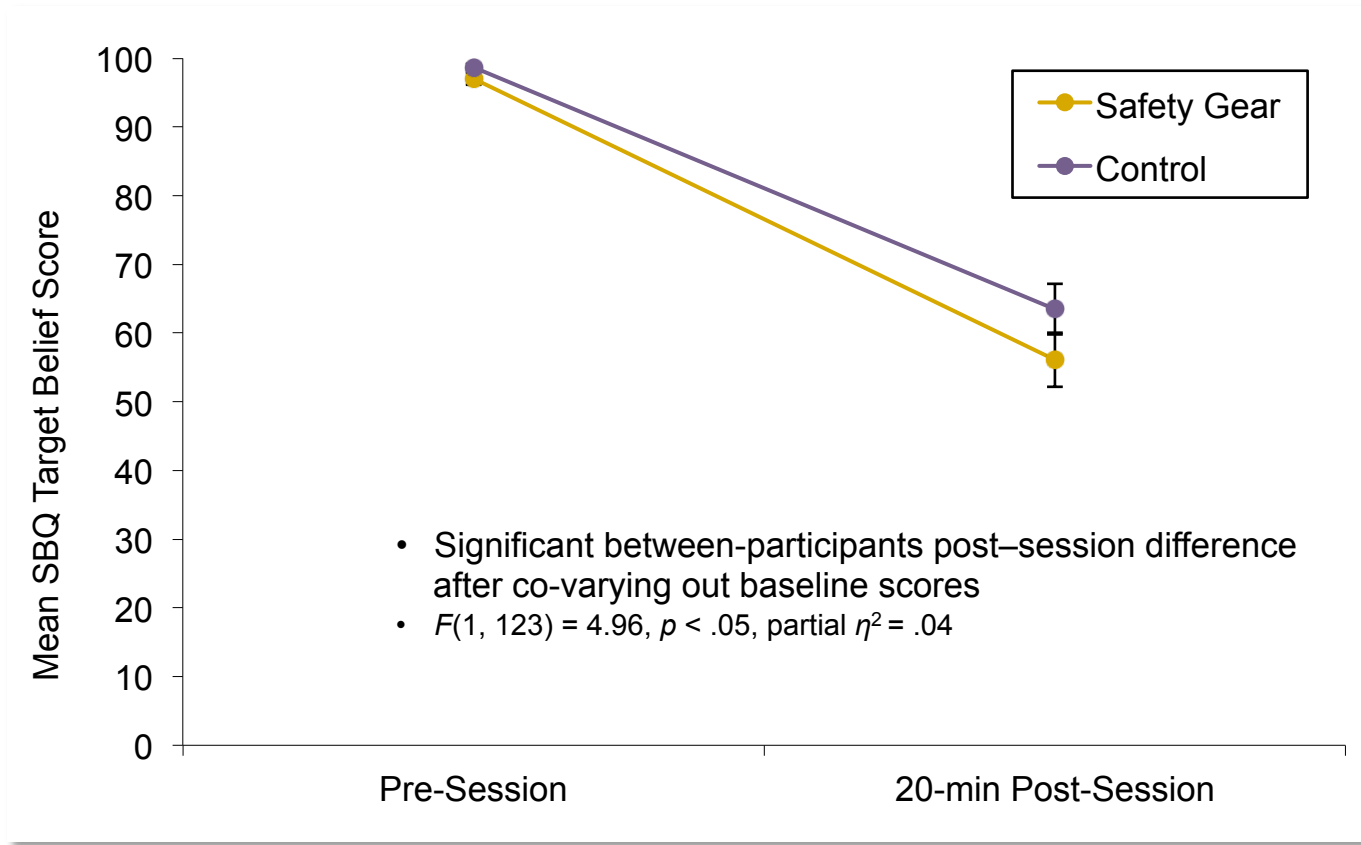
- Essentially the same design, but
 - Participants (n = 126) were highly fearful of spiders
 - Exposure was replaced with a behavioural experiment
 - “Your goal is to learn as much as possible about the spider and your reactions to it so that you can test whether your belief that _____ is true”
 - Target belief identified idiographically using the Spider Beliefs Questionnaire (SBQ)

Exposure Room and Spider

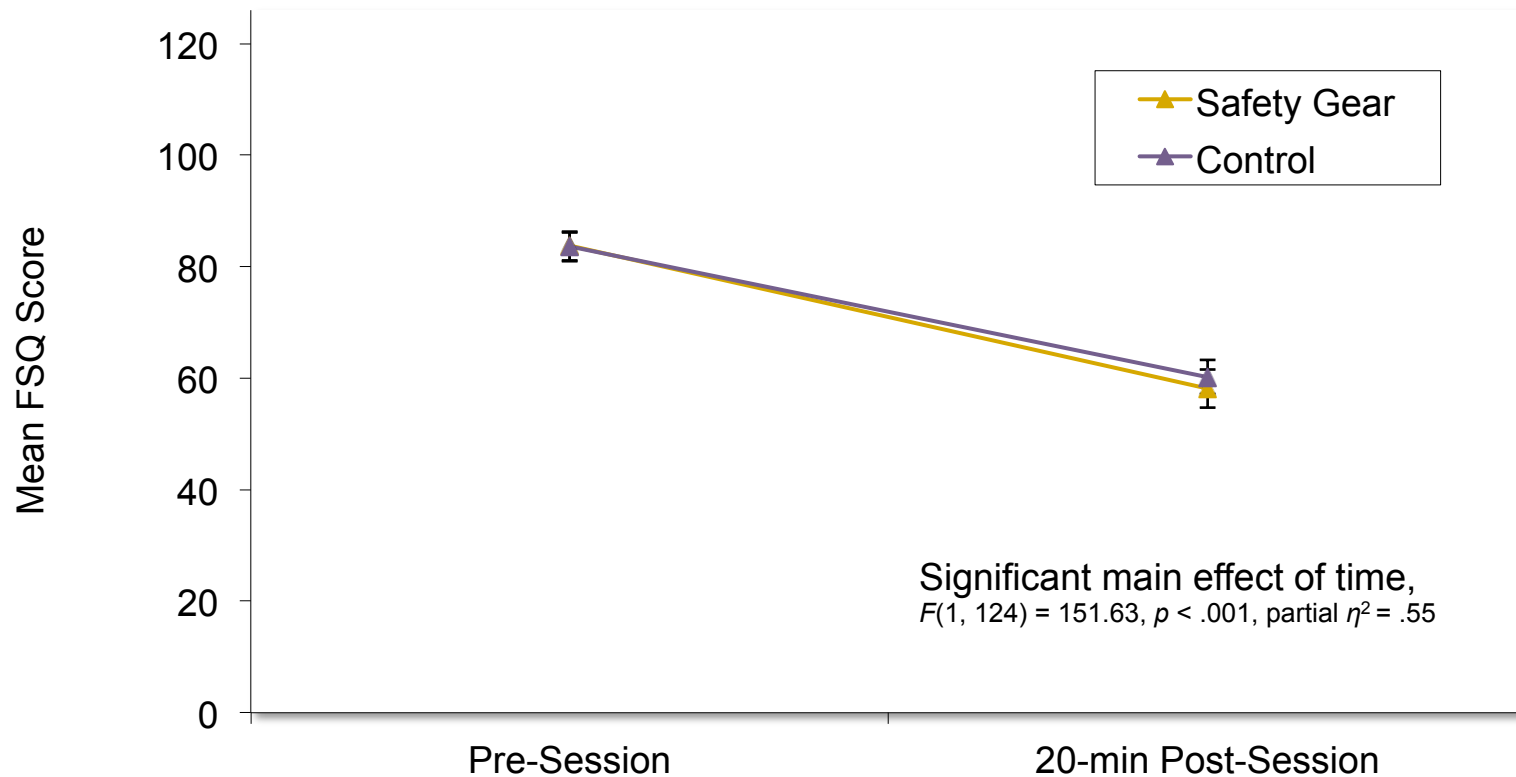
- 3.13 x 2.30-meter room
 - Farthest distance from terrarium 2.74 m (9 feet)
- Chilean Rose tarantula (11 cm diameter)
 - Presented in empty clear terrarium with removable lid



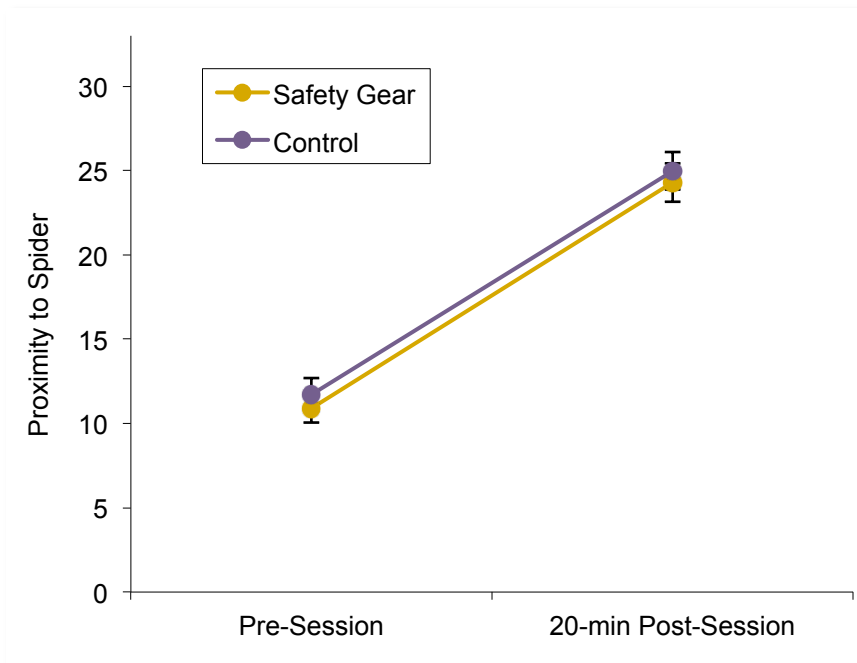
Belief Change: SBQ Target Belief



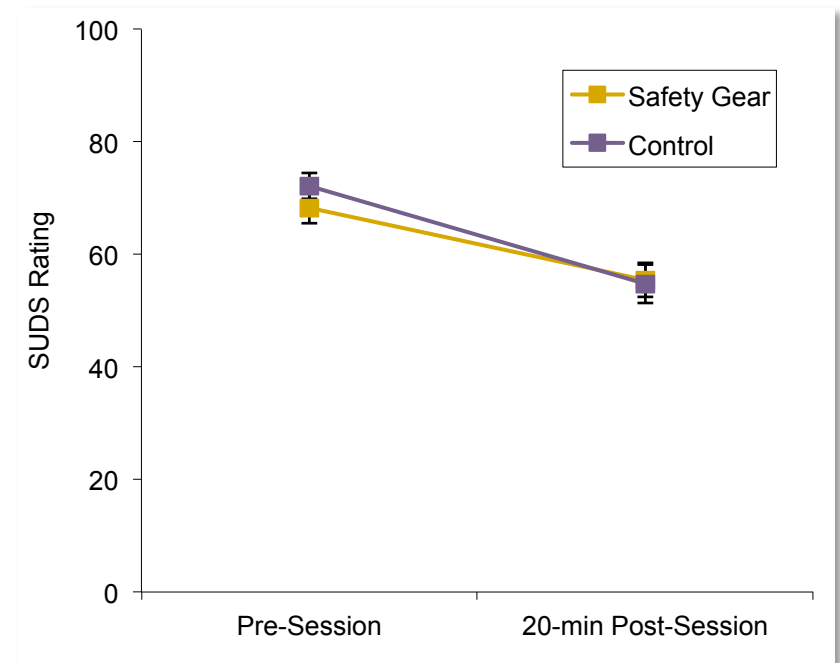
Fear Change: FSQ



Fear Change: BAT & SUDS

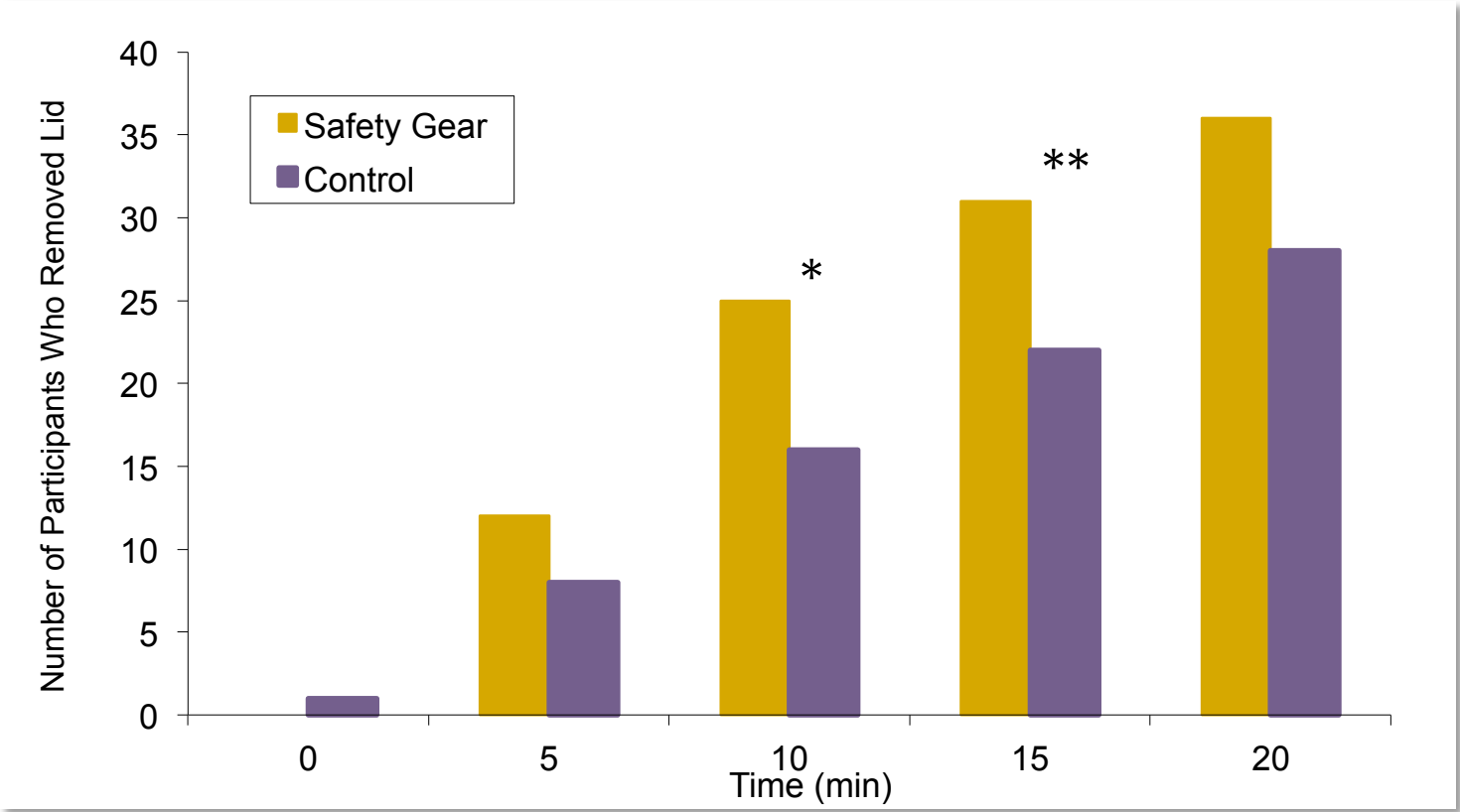


Significant main effect of time,
 $F(1.38, 170.26) = 242.08, p < .001, \text{partial } \eta^2 = .66$



Significant main effect of time,
 $F(1.86, 221.53) = 25.14, p < .001, \text{partial } \eta^2 = .17$

Number of Participants Who Removed Lid From Spider Container During 20-min Behavioural Experiment



* $p=.09$

** $p=.10$

A vignette-based acceptability study:

Two samples

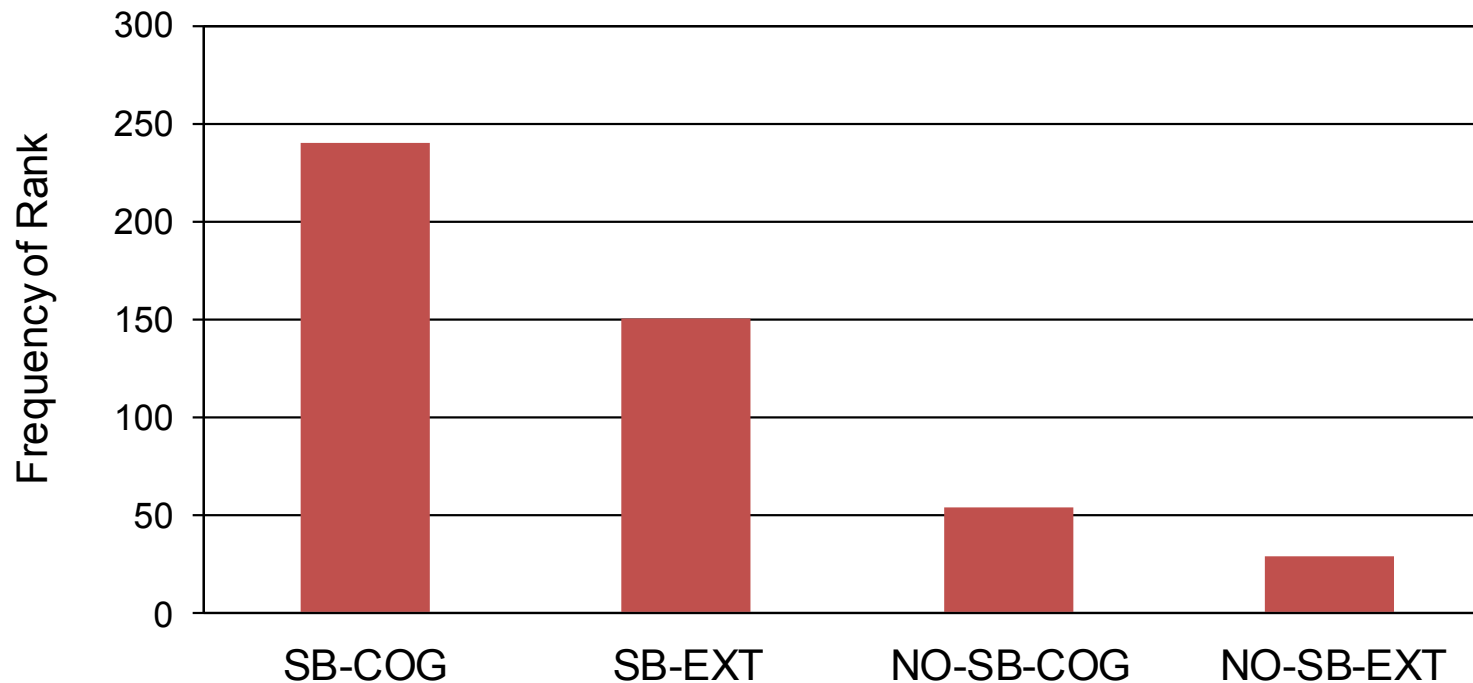
- 467 undergraduates from two Montreal universities
- Age: $M=22.68$ ($SD=4.48$), range 18-59 yrs
- 82% women
- Years in university: $M=2.57$ ($SD=1.73$)

- Clinically anxious sample, $N=40$
- Age: $M=32.80$ ($SD=12.33$), range 18-64 yrs
- 70% women
- Years in university: $M=3.17$ ($SD=3.12$)

Clinically Anxious Participants

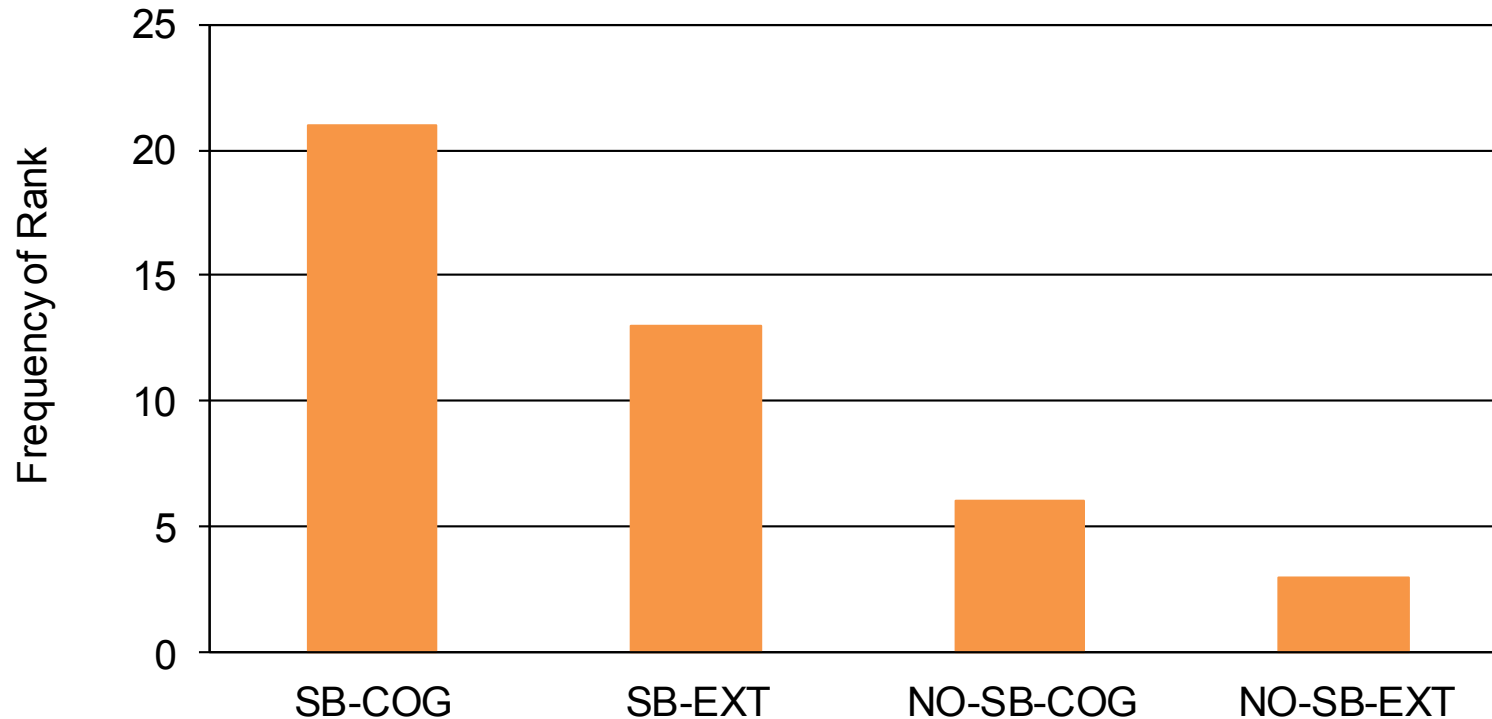
- Primary diagnosis of anxiety disorder based on Anxiety Disorders Interview Schedule for DSM-IV (ADIS-IV)
 - 27% Social Anxiety Disorder
 - 23% Obsessive-Compulsive Disorder
 - 21% Generalized Anxiety Disorder
 - 15% Specific Phobia
 - 6% Panic Disorder w/ Agoraphobia
 - 6% Panic Disorder
 - 2% Hypochondriasis
- Secondary diagnoses
 - GAD, OCD, PD, Specific Phobia, Dysthymia, Major Depressive Disorder, Hypochondriasis, Substance Dependence & Abuse Disorders
- Number of diagnoses: $M=1.90$ ($SD=.87$)

Frequency Distribution of 1st-Choice Treatments (Student Participants, $N=467$)



- Descriptions incorporating judicious use of SB were selected **4.7 times more frequently** as a 1st-choice treatment than those *not* incorporating judicious use of SB

Frequency Distribution of 1st-Choice Treatments (Clinical Participants, $N=40$)



- Descriptions incorporating judicious use of SB were selected **3.8 times more frequently** as a 1st-choice treatment than those *not* incorporating judicious use of SB

Summary of Acceptability Results

- Treatment descriptions that endorsed judicious use of safety behaviour and presented a cognitive rationale were more acceptable than descriptions that discouraged safety behaviour use and presented an extinction rationale
 - Milosevic & Radomsky, 2013b; Levy, Senn & Radomsky, 2014

Safety Behaviour Enhances the Acceptability of Exposure

Hannah C. Levy and Adam S. Radomsky

Department of Psychology, Concordia University, Montreal, QC, Canada

- Following a series of exposure exercises to contaminated stimuli (i.e., dirty laundry, cat hair/insects, bed pan, toilet)
- Undergraduate participants rated ESB as significantly more acceptable than ERP
 - Those in the ESB condition also completed more BAT steps at post-treatment compared to those completing ERP

The case of SB in OCD

- We sought to compare
 - Exposure and Response Prevention (ERP), with
 - Exposure and Safety Behaviour (ESB)
 - Following exposure to a contaminated object, participants are asked to wipe their hands using a hygienic wipe
- Again, a subclinical sample (n = 80) was used

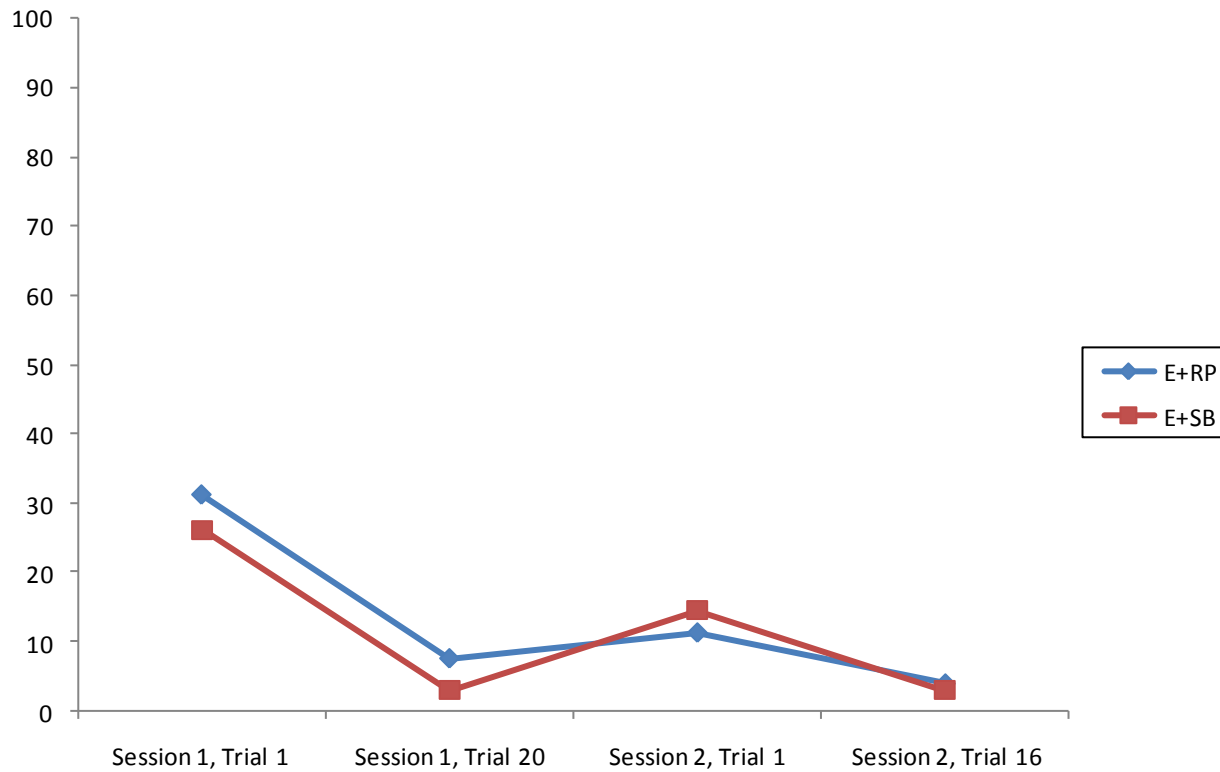
Six contaminants

- Idiographically selected based on participant's ratings
 - Shoe
 - Rub the bottom of your shoe
 - Money
 - Touch a grubby looking \$5 bill and some old coins
 - Garbage
 - Touch garbage can containing granola/candy bar wrappers, used coffee cup, tissues
 - Phone
 - Touch an old discoloured lab phone
 - Culture sample
 - Touch a test tube containing a coloured liquid
 - Lab specimen
 - Touch a biohazard bag containing gauze and a surgical glove

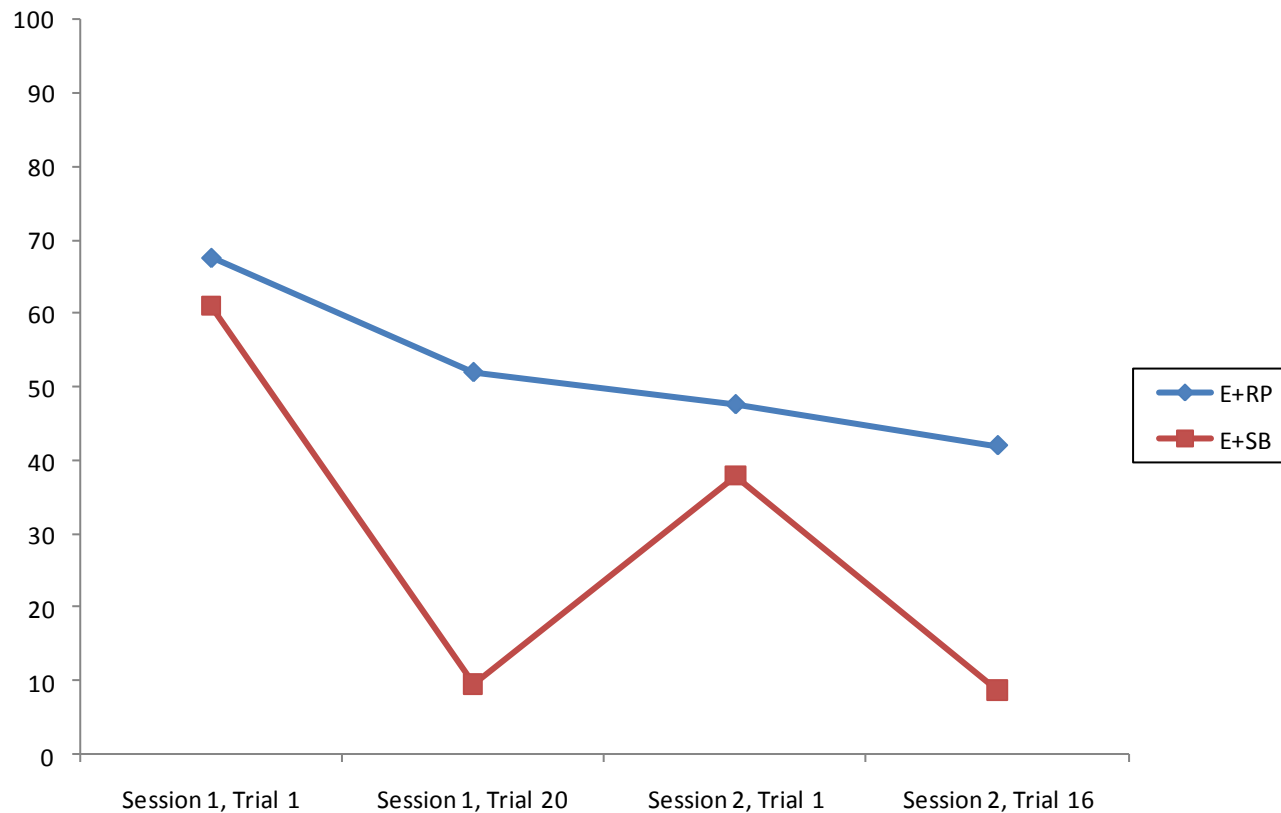
Study design

- Following baseline testing, random assignment
 - ERP or ESB
- 20 trials during visit 1
 - Touch and wait (ERP) vs. Touch and wipe (ESB)
 - Ratings of contamination, fear, danger and disgust (CFDD) taken **after the touch, but before the wipe/wait**
- 16 trials during visit 2, about two weeks later
 - CFDD ratings taken after each trial

Fear ratings



Contamination ratings





Contents lists available at ScienceDirect

Journal of Behavior Therapy and Experimental Psychiatry

journal homepage: www.elsevier.com/locate/jbtep



Reducing contamination by exposure plus safety behaviour

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J. Behav. Ther. & Exp. Psychiat. 42 (2011) 364–370



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Journal of Behavior Therapy and Experimental Psychiatry

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Exposure plus response prevention versus exposure plus safety behaviours in reducing feelings of contamination, fear, danger and disgust. An extended replication of Rachman, Shafran, Radomsky & Zysk (2011)

Marcel A. van den Hout*, Iris M. Engelhard, Marieke B.J. Toffolo, Sophie L. van Uijen

Utrecht University, The Netherlands



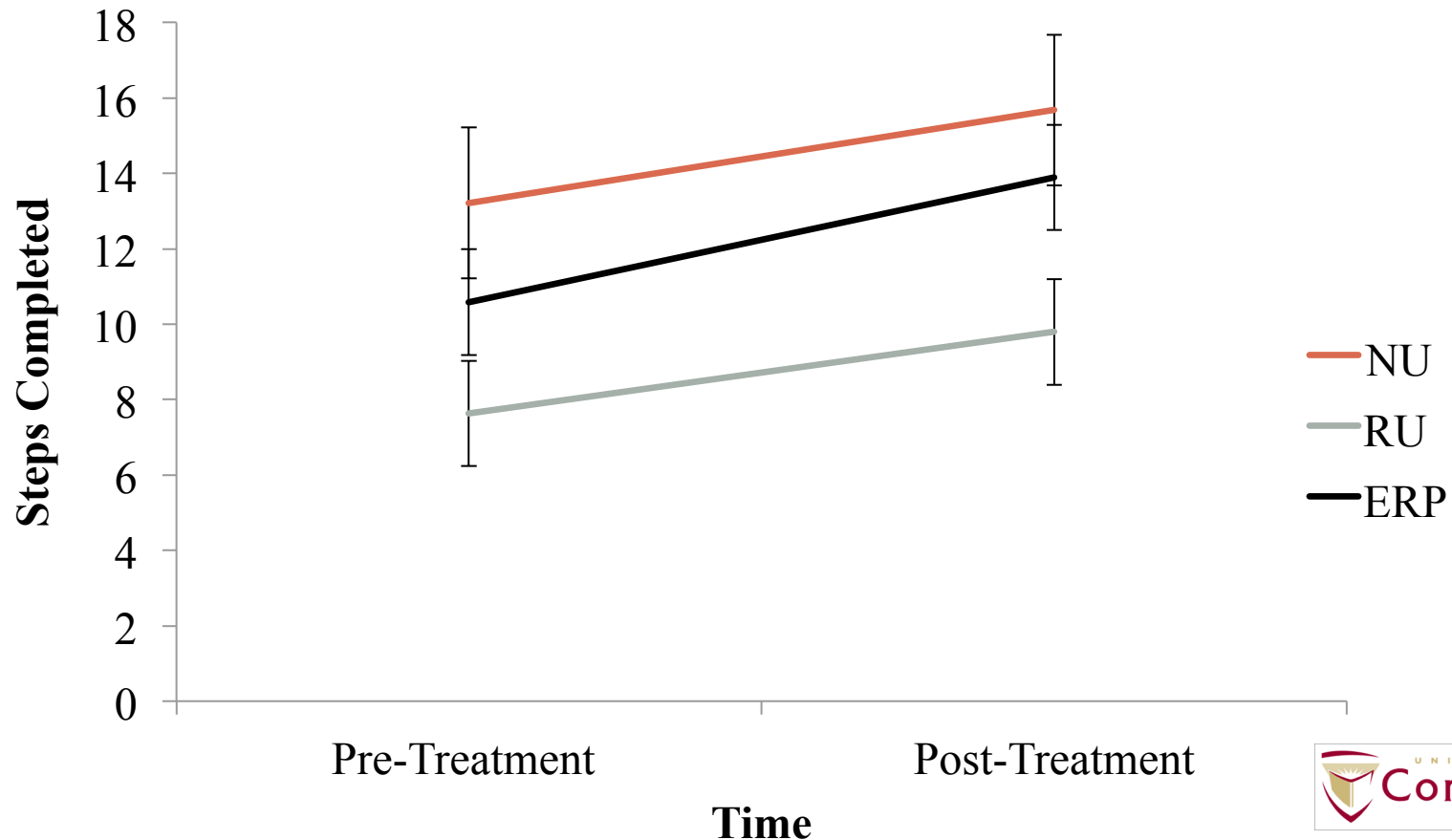
A recent clinical replication and follow up study (Levy & Radomsky, 2016a)

- Testing hypotheses in a clinical sample, and
 - Does it matter WHICH safety behaviour is used?
- A sample of (n = 60) individuals diagnosed with OCD and reporting clinically significant contamination fears
- Asked to come to the lab with their most commonly used SB
 - E.g., wipes, gels, gloves, etc.
- Following the same idiographic baseline selection of most-distressing contaminant, participants were randomly assigned to conduct 20 trials:
 - ERP (touch and wait)
 - ESB with routinely-used SB (RU)
 - ESB with never-used SB (NU)

Results: Behavioural Approach

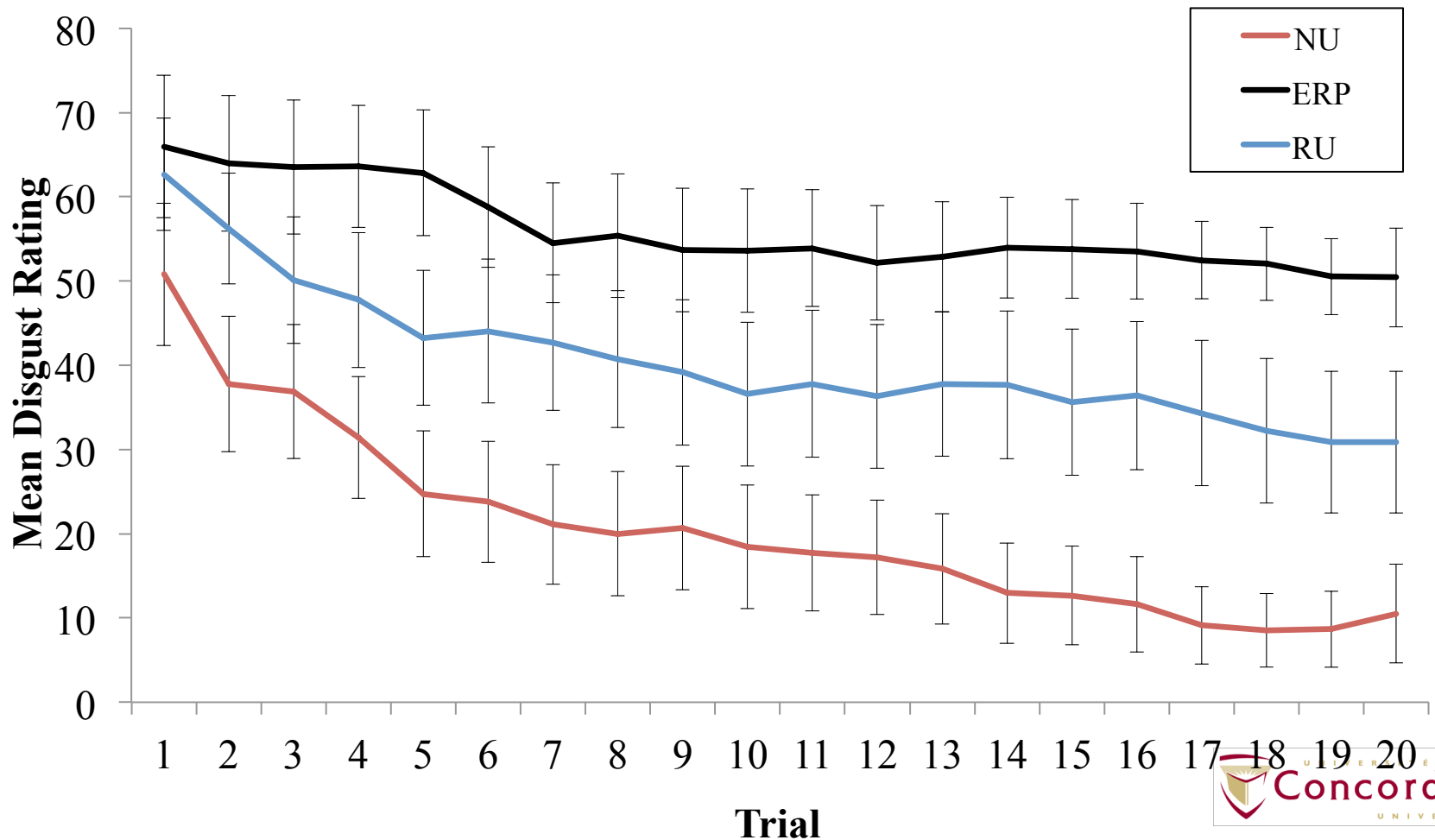
(Similar findings for anxiety, ratings of contamination)

- ANCOVA controlling for baseline scores revealed no group differences at post-treatment, $F(2, 56) = 1.72, p = .189$
 - Significant baseline differences, $F(2, 54) = 3.72, p = .031$



Results: Disgust

Disgust ratings decreased more rapidly in the NU condition as compared to ERP, $B = .98$, $t(36) = 1.84$, $p = .075$



How to fade safety behaviour? (Levy & Radomsky, 2016b)

- Subclinical participants (n = 100) with high levels of contamination fear were randomly assigned to one of three safety fading conditions during 20 exposure trials:
 - Participant initiated (PI)
 - Experimenter initiated (ET; yoked to time/trial #)
 - Experimenter initiated (EA; based on reduction in SUDS)
- All conditions showed improvement, but these were significantly greater for PI compared to ET
- Acceptability was also markedly higher for PT compared to ET

Warning!

- Safety behaviour use is often bad
 - But there are both good and bad types of SB
- This work is still in its early stages
- Please do not try using hygienic wipes with your OCD patients
- Much empirical support for many of these techniques remains to be assessed
 - Work required on treatment seeking clinical populations with a range of pathologies with long term follow-ups
 - Some of this is already underway

On the other hand, ...

- In many respects, we're already doing it
- Consider a typical hierarchy

Sample hierarchy for agoraphobia

Supermarket alone	100
Supermarket with friend	85
Post office alone (no meds)	80
Post office with meds (in pocket)	70
Post office with friend	60
Walk around the block alone (no meds)	55
Walk around the block w/ meds (pocket)	40
Walk around the block with friend	25

Sample hierarchy for agoraphobia

Supermarket alone	100
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Walk around the block alone (no meds)	55
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Even if you disagree, ...

- *Please* be sure to assess the impact of behaviour on cognitive change (and vice versa)
 - Don't assume that something is countertherapeutic
 - A GREAT opportunity for behavioural experiments
- Behaviour which blocks cognitive change is likely to be harmful
 - Plenty of evidence for this
- But, behaviour which facilitates cognitive change (and/or approach behaviour) is likely to be helpful
- Your clients are often the best guide to this

For us, **cognition** led here

- Although this could easily be applied to enhancing the acceptability of exposure-based treatments
- There may be other advantages of a cognitive approach to OCD (Shafran, Radomsky, Coughtrey & Rachman, 2013)
 - Effective strategies for working with obsessions (Rachman, 1997, 1998; Whittal et al., 2010)
 - Effective strategies for working with doubting and checking (Rachman, 2002; Alcolado & Radomsky, 2011, 2016)
 - Emerging strategies for understanding and working with mental contamination (Rachman, 2004; Coughtrey et al., 2013)
- PS – Experimental psychopathology helped us get here too!

How can we enhance CBT?

- Treatment innovations continue, many of them guided by cognitive theory
- ‘Compliance’ and ‘tolerance’ problems rest solely with the therapist
 - It is *our* job to make treatments more acceptable
- Much of what we do is superb and we should be proud of this
 - But opportunities to build upon these improvements will enable us to expand our ability to help those most in need without scaring them away
- We continue to work on this in the lab... and in the clinic

- Watch this space

THANK YOU
