FUNCTIONING VS. SYMPTOMS

HOW CAN WE BEST MEASURE OUTCOME?

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DISCLOSURE

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SYMPTOMS AND FUNCTIONING

- Evidence in support of CBT for anxiety disorders (Deacon & Abramowitz, 2004; Olatunji et al., 2010)
- Focus on symptom levels as the primary outcome
- How do we know that symptom reduction leads to improved functioning?
  - Is the directionality of our thinking reversed?
- Do improvements in functioning lead to reductions in symptoms?
HYPOTHESES

• Symptoms and functioning are equally important predictors of each other
• This relationship will remain at 6, 12, and 18 month follow-ups
METHODS

• 1,004 participants were recruited from 17 primary care sites
• All participants (CALM and TAU) were included in the current study
• Symptom measures:
  • Anxiety Sensitivity Inventory (ASI; Reiss et al., 1986)
  • Brief Symptom Inventory (BSI; Derogatis et al., 1983)
  • Patient Health Questionnaire (PHQ-8; Spitzer et al., 1999)
• Functioning measures
  • Short Form-12 oblique subscales for physical and mental functioning (Ware et al., 1995)
  • Sheehan Disability Scale (SDS; Sheehan, 1983)
ANALYTIC STRATEGY

• EQS-Structural Equation Modeling Software (Bentler, 2006)
• Cross-lagged panel model (Martens & Haase, 2006)
ANALYTIC PLAN

- EQS-Structural Equation Modeling Software (Bentler, 2006)
- Cross-lagged path analysis

Step 1

- Autoregressive model
AUTOREGRESSIVE EXAMPLE

SDS 00 → SDS 06 → SDS 12 → SDS18

BSI 00 → BSI 06 → BSI 12 → BSI18
ANALYTIC PLAN

Step 1
• Autoregressive model

Step 2
• Functioning → Symptoms
FUNCTIONING ➔ SYMPTOMS

SDS 00 ➔ SDS 06 ➔ SDS 12 ➔ SDS 18
BSI 00 ➔ BSI 06 ➔ BSI 12 ➔ BSI 18
ANALYTIC PLAN

Step 1
• Autoregressive model

Step 2
• Functioning → Symptoms

Step 3
• Symptoms → Functioning
SYMPTOMS ➔ FUNCTIONING

SDS 00 ➔ SDS 06 ➔ SDS 12 ➔ SDS 18

BSI 00 ➔ BSI 06 ➔ BSI 12 ➔ BSI 18
ANALYTIC PLAN

Step 1
- Autoregressive
- (BSI 00 → BSI 06, BSI 06 → BSI 12)

Step 2
- Functioning → symptoms
- (SDS 00 → BSI 06, SDS 06 → BSI 12)

Step 3
- Symptoms → functioning
- (BSI 00 → SDS 06, BSI 06 → SDS 12)

Step 4
- Full Model
- Deviance change of Step 2 to 4;
  Deviance change of Step 3 to 4
FULL MODEL

SDS 00

SDS 06

SDS 12

SDS 18

BSI 00

BSI 06

BSI 12

BSI 18
ANALYTIC STRATEGY

• Errors allowed to correlate at the same time-point
• Modification indices:
  • Include paths from baseline to all follow-up points of same measure
• Diagrammed paths do not include coefficients from autoregressive model
ASI AND SDS

Fit Indices:
BENTLER-BONETT NORMED FIT INDEX = 0.955 (Over .95 is “good”)
BSI AND SDS

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PCS, MCS, PHQ

Fit Indices:
BENTLER-BONETT NORMED FIT INDEX = 0.973 (Over .95 is “good”)
Fit Indices:
BENTLER-BONETT NORMED FIT INDEX = 0.970 (Over .95 is “good”)
MCS AND PHQ

Fit Indices:
BENTLER-BONETT  NORMED FIT INDEX = 0.976 (Over .95 is “good”)
DISCUSSION

• Symptom reduction is important to improving functioning, vice versa
• Treatments should therefore focus on both
• RCT should measure both
• Clinicians do not need to wait until symptoms improve to work on functioning
REFERENCES


