Emotion

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For more information, please visit www.nihtoolbox.org

Emotion Team

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- Center on Outcomes, Research, and Education
  - David Cella, Zeeshan Butt, John Salsman, Kathleen Swantek
- Medical College of Wisconsin
  - Mary Jo Kupst
- Indiana University School of Medicine
  - Hugh Hendrie
- Westat
  - Nick Zill
- NIH
  - Pim Brouwers, Kate Stoney, Sarah Knox

Consultants

Negative Affect
- David Watson
- Kristin Buss
- Maria Kovacs
- Jerome Yeravage

Positive Affect
- Felicia Huppert
- Dilip Jeste
- Bruce Cuthbert
- Margaret Briggs-Gowan
- Alice Carter

Stress and Coping
- Susan Folkman
- Charles Carver
- Susan Calkins
- Bruce C Hampas

Social Relationships
- Sheldon Cohen
- John Cacioppo
- Teresa Seeman
- Cindy Stifter
Emotional Health

- Negative Affect
  - Paul Pilkonis (UPMC), development at UPMC
- Positive Affect
  - Hugh Hendrie (IU), development at CORE
- Stress and Coping
  - Mary Jo Kupst (MCW), development at CORE
- Social Relationships
  - Jill Cyranowski (UPMC), development at UPMC

Organizing Ideas

- Time course of emotion
  - Brief states (minutes to hours)
  - Moods (days to weeks)
  - Expressive patterns and temperaments (lifespan traits and “set points”)
- Our focus = Moods
  - Intermediate time spans
  - Assessed primarily by self-report (PRO’s)

Organizing Ideas

- Focus on emotional health and adaptation, not psychological impairment
- Independence of positive and negative affect
- Emotional distress as reflected in internalizing and externalizing forms
- Adaptive and communicative functions of emotion in a social species
Process to Develop Sub-domain Definitions

- Initial Request for Information (RFI)
- Literature review
- Expert input
  - Team members and consultants
  - Individual interviews with outside experts
- Draft definitions
  - NIH review
  - Consensus of team and consultants
- Approval of definitions

Negative Affect

- Sadness
- Fear
- Anger
- General Distress
- Apathy (older adults)

Positive Affect

- Positive feeling states
- Life satisfaction/meaning
Stress and Coping
- Perceived stress
- Coping strategies
- Coping self-efficacy

Social Relationships
- Social support
- Loneliness
- Social network integration
- Social distress

Negative Affect
- Sadness
- Fear
- Anger
- General distress
- Apathy

Positive Affect
- Positive feeling states
- Life satisfaction/meaning

Challenge:
How to measure 14 things in 30 minutes?
Options for Brief Assessment

- Available, off-the-shelf instruments
  - search in progress across the sub-domains

Sources of Instruments in Current Assessment Library

- Literature reviews
- Early-stage Request for Information (RFI)
- Early-stage Expert Interviews
- Consultant nominations

Instrument Library Contents

- 206 Negative Affect
- 63 Positive Affect
- 152 Stress and Coping
- 4 Social Relationships

53 instruments categorized in more than one sub-domain
First-stage Review

- Proprietary instruments rejected
- Concept coverage based on approved sub-domain definitions
- Ease of understanding/Literacy
- Self-report over proxy and observer (except children)
- Discounting of diagnostic tools long instruments

Negative Affect: Adult Self-Report

<table>
<thead>
<tr>
<th>Subdomain Component (# of items)</th>
<th>Recommended Measures (# of items)</th>
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</table>
| Depression (29)                 | 1. CES-D: Center for Epidemiological Studies Depression Scale (20)  
2. PHQ-9: Patient Health Questionnaire (9)  
3. PROMIS Depression Item Bank (48) |
| Anxiety (63)                    | 1. K6: Mental Health Scale (Kessler)  
2. GAD-7: Generalized Anxiety Disorder (7)  
3. PROMIS Anxiety Item Bank (48) |
| Anger (58)                      | 1. BPAQ: Buss Perry Aggression Questionnaire (29)  
2. PROMIS Pediatric Anger Item Bank (6) |
| General Distress (57)           | 1. CES-D: Center for Epidemiological Studies Depression Scale (20)  
2. PHQ-9: Patient Health Questionnaire (9)  
3. PROMIS Depression Item Bank (48) |
| Apathy (46)                     | 1. AES: Apathy Evaluation Scale (48) |

Negative Affect: Pediatric Self-Report

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<tr>
<th>Subdomain Component (# of items)</th>
<th>Recommended Measures (# of items)</th>
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</table>
| Depression (15)                 | 1. SMFQ: Short Mood and Feelings Questionnaire (15)  
2. CES-DC: Center for Epidemiological Studies Depression Scale for Children (26)  
3. PROMIS Pediatric Depression Item Bank (15) |
| Anxiety (54)                    | 1. SCARED: Screen for Child Anxiety Related Disorders (43)  
2. PROMIS Pediatric Anxiety Item Bank (14) |
| Anger (18)                      | 1. AESC: Anger Expression Scale for Children (12)  
2. PROMIS Pediatric Anger Item Bank (6) |
| General Distress (47)           | 1. PSCL-17: Pediatric Symptom Checklist (17)  
2. PANAS-C: Positive and Negative Affect Schedule for Children (30) |
Next Steps

- Revisit apparent gaps in age- or concept-coverage with consultants
- Psychometric review of strong contenders
- Review and selection of instruments for Emotional Health Toolbox
- Wave 1 (Calibration) Testing

Options for Brief Assessment

- Available, off-the-shelf instruments
  - search in progress across the sub-domains
- IRT applications
  - Targeted short forms
  - Item banks/CAT

IRT

Item Response Theory (IRT) models enable reliable and precise measurement of PROs
- Fewer items needed for equal precision
- Making assessment briefer
- More precision gained by adding items
- Reducing error and sample size requirements
- Error is understood at the individual level
- Enabling practical individual assessment
In a traditional static form, participants would answer items sequentially until they completed all items.

In an IRT-driven CAT, participants would see items selected on the basis of their response to the previous item, reducing the number of items needed for reliable measurement.