BACPAC Biobehavioral Research Psychosocial Questionnaires and QST Recommendations

While many pain measurement data are collected via the BACPAC Minimum Dataset, the BACPAC Biobehavioral Working Group was formed to research and recommend additional psychosocial measures to augment these core requirements. The following additional domains and questionnaires are the result of the working group's efforts, although the list is not meant to be exhaustive. In addition to providing recommendations for domains and measures, the working group categorized several domains and/or questionnaires as Additional/Optional. This is meant to acknowledge that some projects or teams may wish to include some or all of these, based on their specific aims and interests.

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Psychosocial Recommendations

Domain	Recommended Instruments	Additional, Optional Instruments
Anxiety	GAD-2	PROMIS Anxiety 4a
Depression	PHQ-2	PROMIS Depression 4a
Sleep	PROMIS Sleep Disturbance 6a + Sleep Duration	PROMIS Sleep- Related Impairment-4a (or 8a)
Pain Catastrophizing	6-item Pain Catastrophizing Scale PCS-SF	
Sensory versus Affective Pain	McGill Short Form	
Pain Qualities / Neuropathic Pain / Widespread Pain	PainDETECT + Body Map and Trajectory Images	Michigan Body Map

Somatization	Single item (included in the BACPAC required dataset): Is your low back pain more severe than pain in other parts of your body?	
Perceived Stress	4-item Perceived Stress Scale	
Fear of Movement	FABQ-PA (Fear Avoidance Beliefs Questionnaire - Physical Activity)	
Chronic Pain Acceptance	CPAQ-8	
Coping Strategies	CSQ-24	
Affect	PANAS Positive Affect 5 items	PANAS Positive Affect 10 Items
Interoceptive Awareness including Ignoring pain	4 of 8 scales (22 items) from the MAIA-2: Not-Distracting, Attention Regulation, Emotional Awareness, and Self-Regulation	
Resilience/Protective Domains: Optimism or Positive Outlook	HEAL POS	LOT-R
Self-Efficacy / Sense of Control	PSEQ-4	 PROMIS SE for managing symptoms-4 PROMIS General Self- Efficacy SEE for exercise BPCQ on internal versus external control

Social Adversity and Support

PTSD / Adverse life Events	PC-PTSD-5 with the addition of a question as to whether exposure to a traumatic event occurred A) as a child or B) as an adult or C) as both; possibly include a question on disclosure vs not disclosed	 Life Events Checklist (LEC) Childhood Traumatic Experiences Survey (CTES) ACES
Financial Strain	Single item: "How hard is it for you (and your family) to pay for the very basics like food, medical care, and heating?" Response options: 1 = very hard, 2 = hard, 3 = somewhat hard, 4 = not very hard, and 5 = do not know.	Thrive SDOH Tool
Perceived Discrimination	Single item recommendation from NIMHD: "How often do people treat you unfairly because of your ethnicity or race?" Response scale of 0-3 Never to Always	Addition of "color," "sexual orientation," and/or "gender identity" to the question.
Social Support	4-item PROMIS Emotional Support 4a V2	MOS Social Support
Cognition	From PROMIS-29+2 (PROPr): In the past 7 days, I have been able to concentrate In the past 7 days, I have been able to remember to do things, like take medicine or buy something I needed Response options: 1=not at all, 2=a little bit, 3=somewhat, 4=quite a bit, 5=very much	
Personality	No strong recommendation	6-item NEO-short form
Pain Anxiety / Avoidance	Pain Anxiety Symptoms Scale – Short Form	

Pain-Related Disability	Oswestry Disability Index	Pain interference and pain impact from BACPAC minimum dataset
Expectancy	Expectation of Pain Relief	HEAL treatment expectancy form
Mindfulness	No strong recommendation	 FFMQ (Five Facet Mindfulness Questionnaire) Experience Questionnaire

Additional Domains

Pain Behavior	PROMIS BANK 1.2 Pain Behavior 4 items:
	 In the past 7 days: When I was in pain I moved extremely slowly
	 When I was in pain I showed on my face (squinting eyes, opening eyes wide, frowning)
	When I was in pain I became irritable
	 When I was in pain I appeared upset or sad.
	Response options: had no pain; never; rarely; sometimes; often.
Pain Sensitivity, Sensory Hypersensitivity, and Emotion Regulation	8-item short form for Emotional & Behavioral Dyscontrol from Neuro-QOL

Quantitative Sensory Testing Recommendations

Domain	Recommendation
Pressure Pain Sensitivity	The assessment will be measured using an analog algometer with a 1-cm rubber probe to quantify pressure pain thresholds (PPT). The primary location of the test will be performed on the lumbar region with the control site over the contralateral trapezius muscle.
Temporal Summation	The assessment will use a 40 g Neuropen Neurotip applied to the skin of the volar forearm and lumbar region.
Conditioned Pain Modulation	Each site will be using a variety of conditioned pain modulation in order to test different approaches to elicit CPM, with the idea that we will look at these results longitudinally in an aggregate data analysis.