

Developing and testing short and savvy measures of resilience, health, and well-being for longitudinal research with healthcare workers

Katherine A. Werth, Christopher J. L. Cunningham, Mukta Panda

INTRO

- Briefer measures are more useful for longitudinal studies, but are brief measures suboptimal, though, for capturing meaningful construct variance?
- OHP research and practice can be improved with empirical evidence for the reliability and validity of brief measures of widely utilized stress, burnout, and engagement scales
- RQ1: Will shortened forms of common measures demonstrate adequate reliability?
- RQ2: Do shortened measures present evidence of stability/change over time as expected?

METHOD

- Stratified, targeted sample of 54 notably resilient healthcare workers in SE metropolitan area (USA)
 - >75% responded to long-form baseline + 6-7 monthly brief-form surveys (M follow-up response rate = 88.4%)
- Data gathered late Summer through early Fall 2020 via an internet survey (COVID-19 period)
- Descriptive and correlational/regression analyses

RESULTS

- RQ1: Short-form measures revealed moderate to strong interform reliability with long-form equivalents, $r = .56-.83$
- RQ1: Single-item measures had low to moderate average correlations with their long-form counterparts, $r = .32-.50$
- RQ2: Good evidence of test-retest reliability over time for most measures
- RQ2: Scores did not consistently vary with seven-day M COVID hospitalization rates, $r = -.07-.06$

DISCUSSION

- Shortened scales demonstrate adequate reliability for use in research and evaluation contexts
- Such scales facilitate high response rate/retention and can expedite survey completion times
- Generalizability needs to be further investigated

Short-form measures can be used to reliably gather useful information in longitudinal research involving stress, burnout, and engagement related constructs.

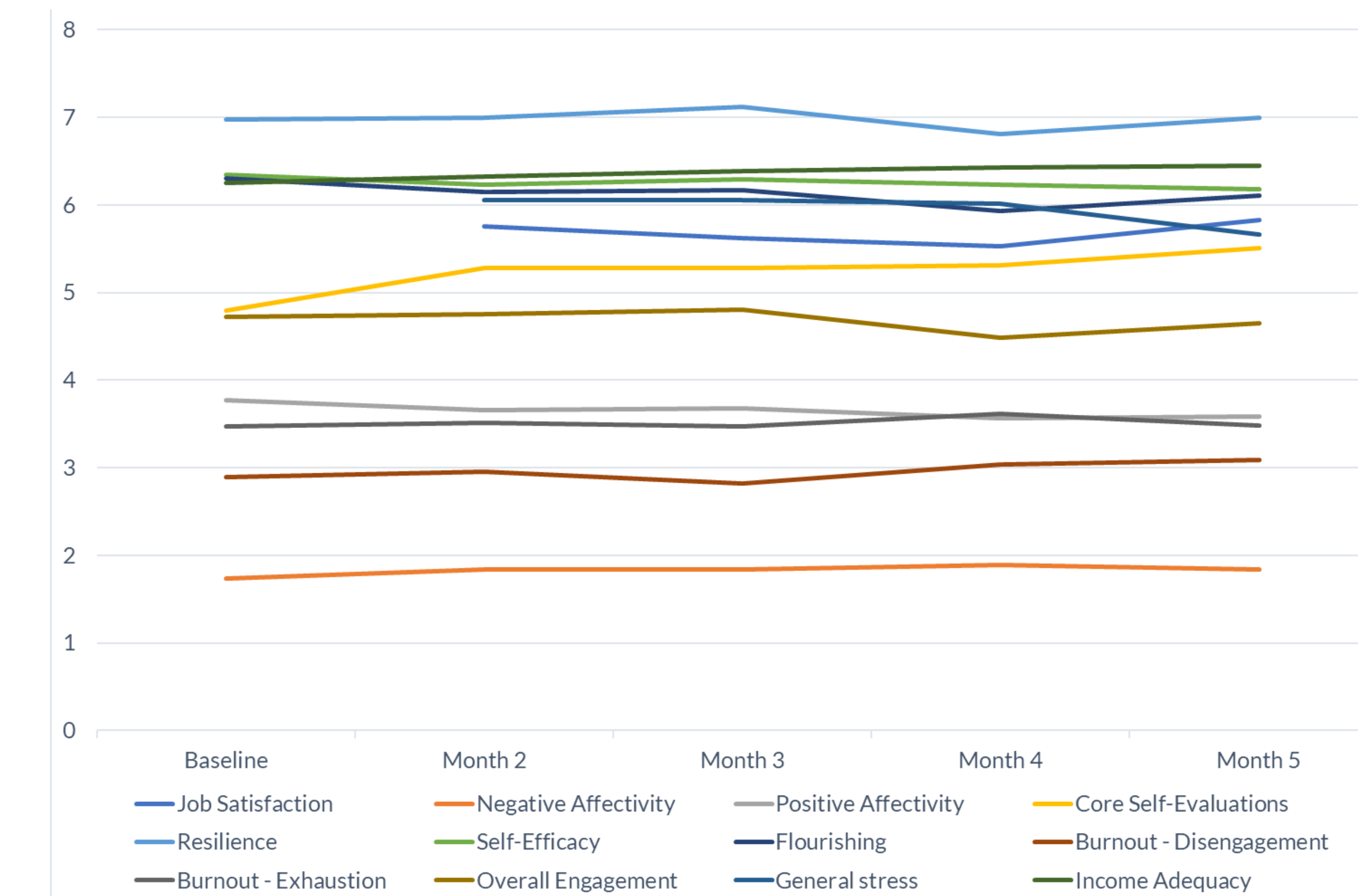
Observed test-retest reliabilities

Variable	<i>r with initial short-form measurement</i>				
	T2	T3	T4	T5	M
1. Job Satisfaction (short-form)	n/a	.50*	.67*	.49*	.55
2. Negative Affectivity (short-form)	.79*	.58*	.75*	.61*	.68
3. Positive Affectivity (short-form)	.52*	.57*	.56*	.50*	.54
4. Core Self-Evaluations (short-form)	.64*	.63*	.67*	.60*	.64
5. Resilience (short-form)	.57*	.42*	.40*	.44*	.46
6. Self-Efficacy (short-form)	.62*	.68*	.58*	.69*	.64
7. Flourishing (short-form)	.80*	.77*	.48*	.48*	.63
8. Burnout - Disengagement (short-form)	.80*	.63*	.57*	.60*	.65
9. Burnout - Exhaustion (short-form)	.69*	.71*	.63*	.53*	.64
10. Overall Engagement (short-form)	.75*	.63*	.57*	.68*	.66
11. General Stress (short-form)	n/a	.48*	.63*	.55*	.56
12. Income Adequacy (short-form)	.82*	.80*	.82*	.79*	.81
M short-form measure reliability	.70	.64	.60	.59	.63
M single-item measure reliability	n/a	.49	.65	.52	.55

Summary of measures in original/long (and short) forms

Variable	Measure details - Full-form (short-form)
Job Satisfaction (Stanton et al., 2002)	8 items (1 item, job as whole)
Negative Affectivity (Watson & Clark, 1994)	10 items (5 items, subset of full form)
Positive Affectivity (Watson & Clark, 1994)	10 items (5 items, subset of full form)
Core Self-Evaluations (Judge et al., 2003)	12 items (4 items, subset of full form)
Resilience (Davidson, 2020)	10 items (2 items, subset of full form)
Self-Efficacy (Riggs et al., 1994)	10 items (3 items, subset of full form)
Flourishing (Diener et al., 2009)	8 items (4 items, subset of full form)
Burnout - Disengagement (Demerouti et al., 2003)	8 items (3 items, subset of full form)
Burnout - Exhaustion (Demerouti et al., 2003)	8 items (3 items, subset of full form)
Overall Engagement (Schaufeli et al., 2009)	9 items (3 items, subset of full form)
General Stress (Stanton et al., 2001)	8 items (1 item, general stress level)
Income Adequacy (Sears, 2008)	10 items (3 items, subset of full form)

Observed stability of short-form measure M scores over time



**DO NOT USE THIS SPACE.
VIDEO WILL BE
INSERTED HERE BY
CONFERENCE PLANNERS**

Questions? E-mail: chris-cunningham@utc.edu

