



## INTRODUCTION

- Police officers are responsible for the safety and integrity of their communities and act as gatekeepers to the legal system
- Officer well-being is at-risk due to the occupational stressors inherent to police work (Violanti et al., 2017)
- Low well-being is associated with unfavorable police behavior (Harman et al., 2019; Trinkner et al., 2016)
- Research demonstrates there are many variables related to police officer well-being:
  - Psychological Inflexibility (Christopher et al., 2016)
  - PTSD (Huddleston et al., 2007)
  - Anxiety (Kale & Gedik, 2018)
  - Depression (Lawson et al., 2012)
  - Burnout (Mikkelsen & Burke, 2004)
  - Sleep (James et al., 2018)
  - Social Support (Leppma et al., 2018)
  - Chronic Pain (Colgan et al., 2019)
- No research has evaluated the effects of these constructs in a conditionally dependent model

## Hypothesis

Well-being will be a highly connected node in a network of variables demonstrated to be deleterious to officer well-being

## METHOD

### Participants

- Three geographically dispersed agencies in U.S.
- $N = 457$  police officers ( $M_{age} = 41.98$ ,  $SD = 9.72$ ; Male = 84.7%)
- White = 64.2%; Hispanic / Latino = 19.9%; Black/African American = 13.5%; Native American = 1.7%; Asian/Asian American = 0.65%
- Policing experience: Range = 1-45 years,  $M = 15.47$ ,  $SD = 8.86$

### Measures

1. **Well-being:** WHO-Five Well-Being Index. Five-item measure of 2-week well-being (i.e., vitality, energy, and general interests; Staehr, 1998).
2. **Psych Inflex:** Acceptance and Action Questionnaire-II. Seven-item measure of psychological inflexibility (Bond et al., 2011).
3. **PTSD:** Abbreviated PTSD Checklist. Six-item measure of past-month posttraumatic stress symptoms (Lang et al., 2011).
4. **Anxiety:** Generalized Anxiety Disorder-2. Two-item measure of anxious feelings and perceived inability to control worry during the past two weeks (Kroenke et al., 2007).
5. **Depression:** Patient Health Questionnaire-2. Two-item measure of 2-week depressed mood and anhedonia (Kroenke et al., 2003).
6. **Burnout:** Maslach Burnout Inventory-3. Three-item measure of burnout (Maslach et al., 1996).
7. **Sleep:** "Do you get between 6 – 8 hours of restful sleep per night?" on a 4-point scale.
8. **Support:** "How many people are so close to you that you can count on them if you have great personal problems" from 1 (none) to 4 (five or more).
9. **Pain:** "Are you in physical pain related to a chronic injury or condition?" on a 4-point scale.

### Procedure

- Interested and consenting police officers completed an online survey battery regarding work environment and personal wellness

### Analytic Approach

- Unique relations among study variables estimated using network modeling. Variables are considered *nodes*, and *edges* between nodes are conditional dependence relations that can be understood as partial correlations. The least absolute shrinkage selection operator (LASSO) was used to increase specificity and reduce spurious findings. The strength of the LASSO penalty is controlled by a parameter  $\lambda$ , which was selected using the Extended Bayesian Information Criterion (EBIC). Bootstrapping routines were used to determine the stability of parameter estimates.

## RESULTS

**Table 1**  
Descriptive Statistics, Internal Consistencies, and Zero-order Correlations

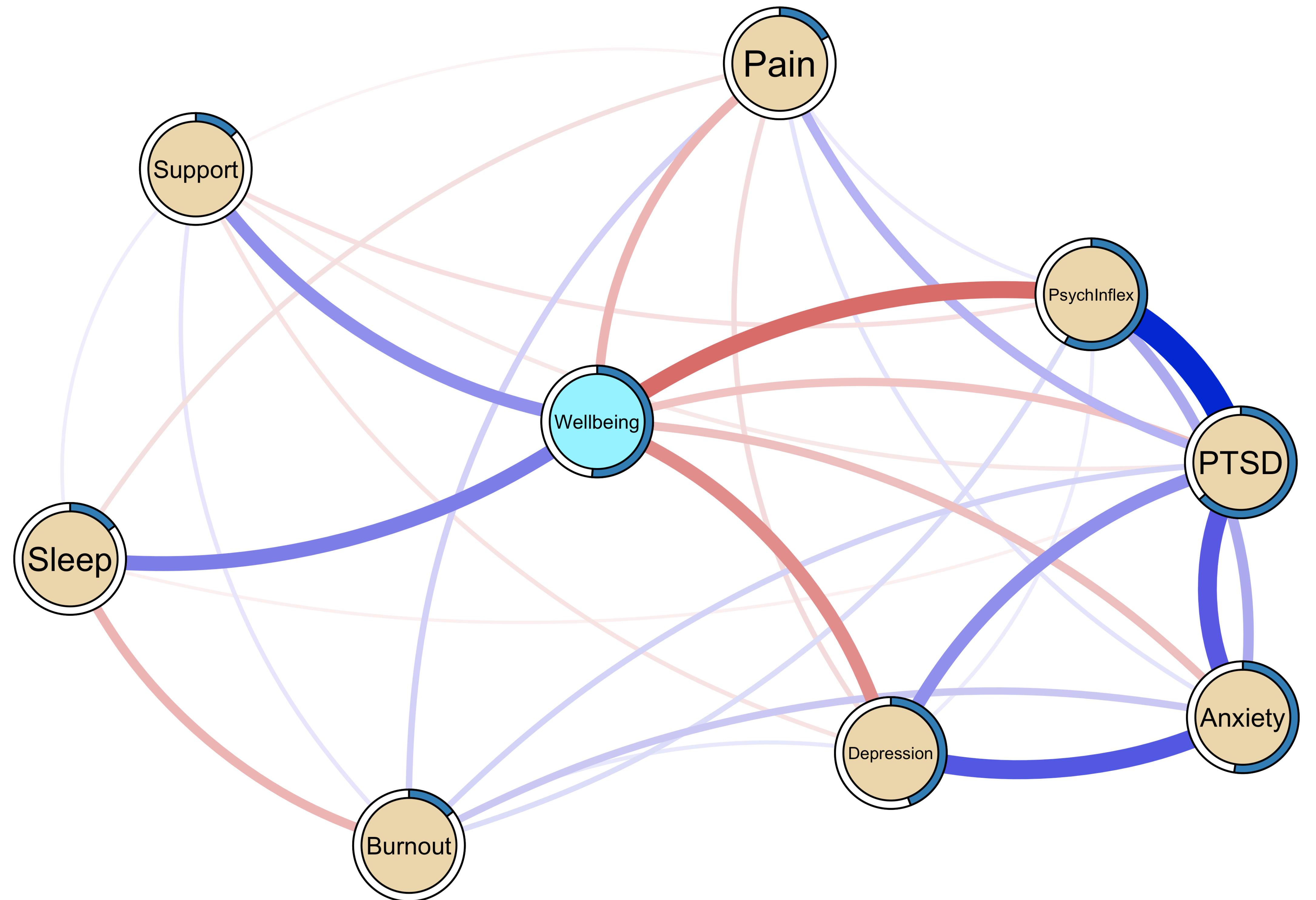
Variable	<i>M</i>	<i>SD</i>	Range	$\alpha$	1	2	3	4	5	6	7	8	9
1. Well-being	13.89	5.97	0 - 25	.92	–								
2. Psych Inflex	14.60	7.61	6 - 47	.92	-.59*	–							
3. PTSD	3.24	3.66	0 - 25	.84	-.58*	.75*	–						
4. Anxiety	1.01	1.44	0 - 6	.85	-.55*	.62*	.65*	–					
5. Depression	0.95	1.32	0 - 6	.64	-.57*	.53*	.57*	.60*	–				
6. Burnout	7.64	3.00	0 - 15	.73	-.24*	.30*	.30*	.29*	.24*	–			
7. Sleep	1.44	0.73	0 - 3	–	.34*	-.24*	-.26*	-.21*	-.20*	-.22*	–		
8. Support	1.72	0.89	0 - 3	–	.39*	-.29*	-.26*	-.22*	-.27*	-.04	.16*	–	
9. Pain	0.82	0.79	0 - 3	–	-.32*	.31*	.34*	.28*	.19*	.21*	-.19*	-.17*	–

Note. Well-being = WHO-Five Well-being Index; Psych Inflex = AAQ-II; PTSD = PCL-A; Anxiety = GAD-2; Depression = PHQ-2; Burnout = MBI-3; Sleep, Support, and Pain assessed with single-items.

\*  $p < .001$ .

**Figure 1**

Network Model



Note.  $N = 457$ . Network displaying the relations of well-being and variables thought to contribute to well-being. Blue edges constitute positive partial correlations, red edges constitute negative partial correlations, and rings around the nodes convey variance of a given variable with the blue portion displaying variance explained by connected nodes. Bootstrapping procedures using 1,000 samples indicated high network stability.

## DISCUSSION

### Hypothesis:

- Well-being was a highly connected and well explained node,  $R^2 = .51$ , with unique bi-directional associations to sleep, support, depression, and psychological inflexibility,  $|r| = .18 - .24$ . Weaker associations were identified for anxiety, posttraumatic stress symptoms, and pain,  $|r| = .01 - .12$ .
- The equifinality of reported well-being suggests police agency interventions and programs may benefit from a multifaceted approach to enhance officer wellness.

### Limitations:

- Substantial unexplained variance in well-being remains, which suggests there are omitted variables that may improve the network
- Psychometric properties of sleep, support, and pain variables have not been evaluated outside the present study
- Cross-sectional data prevents identification of causal effects

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This research was funded in part by an USD-N3 travel award provided by Center for Brain and Behavior Research (CBBRe)

