ScienceDirect

European Management Journal

Available online 10 October 2025

In Press, Corrected Proof What's this?

Perceived collective hope: Development and validation of a scale

Chan M. Hellman [a b], Ricky T. Munoz [a b], Angela B. Pharris [a b], Shawn M. Schaefer [c], Jason Featherngill [b]

Show more

https://doi.org/10.1016/j.emj.2025.10.003

Get rights and content

Highlights

- This paper introduces a new measure of perceived collective hope evaluated with large multi-sample strategies demonstrating strong psychometric properties.

- Perceived collective hope represents the organization's ability communicate clear goals, the appraisal of the members capacity to conceive pathway strategies and possess the willpower to engage pathway strategies.
- Perceived collective hope accounts for significant incremental variance in both burnout and affective commitment.

Abstract

This multi-sample study develops and validates the Collective Hope Scale (CHS), extending hope theory to organizational contexts by assessing employee perception of their organization's capacity to set and pursue goals. In Sample 1 (*N*=15,892; public sector employees across 100+ agencies), exploratory and confirmatory factor analyses (EFA/CFA) confirmed the CHS as distinct from dispositional hope, with structural modeling showing incremental validity in predicting burnout. In Sample 2 (*N*=3285; human service agency employees), EFA/CFA distinguished the CHS from perceived organizational support, with CHS scores uniquely predicting burnout. In Sample 3 (*N*=3423; human service agency employees), CHS scores predicted variance in affective commitment beyond perceived organizational support. Across three large samples, findings support the CHS as a reliable, valid measure with sound psychometric properties and predictive utility, offering a novel tool for advancing organizational research.

Keywords

Perceived collective hope; Hope theory; Burnout; Perceived organizational support; Affective commitment

1. Introduction

As purposeful behavior is goal-directed, effective leaders orient members toward achieving common goals with specific attention to navigating pathways and sustaining motivation for goal attainment. Given past experiences, employees have learned to expect that their combined effort will likely lead to the attainment of organizational goals. This expectancy-based framework, focused on goal achievement, is a foundation of Snyder's (2002) hope theory. According to Snyder, hope refers to the expectation that one can engage in pathway strategies and sustain agentic focus that is likely to result in achieving desired goals. Snyder's conceptualization of hope has received empirical support as a malleable psychological strength leading to important workplace outcomes (cf. Luthans & Youssef-Morgan, 2017). Youssef and Luthans (2007) show that hope makes a meaningful contribution to employee performance, job satisfaction, organizational commitment, and organizational citizenship behavior. Reichard et al.'s (2013) meta-analytic study demonstrates positive associations of hope with performance, job satisfaction, organizational commitment, employee health, and well-being. Reichard et al. (2013) also demonstrate negative associations of hope with both burnout and stress. While Snyder's conceptualization of hope shows promising results in the workplace, this framework is based upon the cognitive appraisal processes of the individual. Thus, the current understanding of hope has focused on individuals' belief in their own capacity to set and sustain motivation toward their own desired goals. However, employees often work in groups where members combine efforts toward common goals established by an organization.

Snyder et al. (1997) theorize that when individuals are members of groups, such groups can be future-oriented, and thus, "groups are built with hopeful thinking as a premise" (112). When members of a group share a common goal, working together promotes efficient and effective strategies for success. Snyder (2002) articulates that "Any truly effective action taken in regard to our environment conundrum must involve the pursuit of *collective* rather than individual goals; that is, it necessitates a collective rather than individual hope process" (401). While individual hope has shown significant benefit to organizational outcomes (cf. Reichard et al., 2013), no measure exists to estimate the employee's perception of the organization's collective level of hope. The purpose of the current study is to extend the hope self-appraisal process to the organizational context and establish a measure that captures the employee's perception of collective hope, which is the appraisal of the organization's capacity to set and pursue common goals. To the extent this new measure produces adequate psychometric properties and demonstrates meaningful convergent validity, perceived collective hope would offer a new line of inquiry to advance group and organizational psychology.

1.1. Theoretical background: Snyder's hope theory

A central premise of Snyder's (2002) theory identifies hope as a cognitive and motivational process based upon the expectation of one's capacity to pursue valued goals. Building upon an expectancy theory of motivation, Snyder argued that people engage in cognitive self-appraisals of their goal pursuit capabilities based on past learning experiences, resulting in a developing dispositional expectation of potential goal pursuits (Snyder, 2002; Snyder et al., 2001). Snyder refers to this dispositional self-appraisal as the starting point for any goal pursuit activity. Thus, "Hope is a positive motivational state that is based on an interactively derived sense of successful (a) agency (goal-directed energy), and (b) pathways (planning to meet goals)" (Snyder et al., 1991, p. 287).

Snyder (2002) argues that the individual's desired goals represent the cornerstone and cognitive endpoint of hopeful thinking. Consistent with expectancy theory, Snyder (2002) argues that goals must be valued enough to occupy conscious thought and potentially motivate action. Goals can be either short- or long-term, with research showing that goals with specific detail are more effective than broad, ambiguous goals (Duncan et al., 2022). This is consistent with Snyder's (2002) description that vague goals are less likely to occur in high hope thinking. Goals must be attainable while existing within some degree of uncertainty. Goals may also be based upon an outcome the individual wants to achieve or an outcome to be avoided.

Once a goal has been appraised as valued, it becomes the organizing focus for both agency and pathway self-appraisals. The individual appraises their capacity to generate useable strategies to reach the desired goal (pathway thinking). The pathway thinking component of hope reflects the ability to strategize routes, further identifying the perceived subgoals representing the benchmarks or steps involved in the pathway leading to goal attainment (Snyder et al., 2001). Pathway thinking allows the individual to consider potential barriers and workable solutions. In the presence of barriers, the hopeful individual is more likely to conceive alternative pathways toward a goal. Snyder (2002) reports that high hope individuals are more likely to embrace pathway self-talk phrases such as *I can get there from here* or *I can find a way around this problem*. Research supports that hopeful individuals can generate multiple pathway strategies toward goals, even in the presence of adversity (Cheavens et al., 2019; Gallagher & Lopez, 2018). Comparatively, lower hope individuals have difficulty with pathway thinking, often focusing on failure as the likely outcome.

In addition to pathway self-appraisals, individuals also engage in cognitive self-appraisal to determine their ability to begin and maintain productive movement toward a valued goal (agentic thinking). Agentic thinking reflects the capacity to direct mental energy and sustain motivation to engage in pathway pursuits, especially when experiencing barriers. Agentic cognitions are activated when the individual expects that engagement in pathways will lead to goal attainment. Snyder (2002) report that high hope individuals are more likely to embrace agentic self-talk phrases such as *I can do this*. Agentic motivation is especially important in the presence of barriers, providing a source of endurance during adversity. Agency involves the willpower (mental energy) required to regulate thoughts, emotions, and behavior during adversity to remain goal focused.

Snyder (2002) argues that both agentic and pathway thinking are necessary for hope but insufficient alone to produce effective goal pursuits. Individuals with high agency but low pathways will find difficulty in their ability to conceive strategies to their desired goal. Likewise, those with low agency but high pathways will find difficulty marshaling the energy to engage and sustain pathways, especially during adversity. Ultimately, the continuous interaction of agency and pathways thinking results in an outcome expectancy (hope) for a given goal (Snyder, 2002; Snyder et al., 2001).

Research has shown hope is a malleable skill when targeting goal setting and pathway enhancement strategies (Gallagher & Lopez, 2018). The malleability of both pathway and agency self-appraisals is consistent with Snyder's description that learning histories produce developmental lessons. As we learn new strategies and skills, both agency and pathways can be enhanced to influence future expectations. Given the cognitive basis of hope, Snyder argues emotion follows successful or unsuccessful goal pursuits. These emotional sets then influence the self-appraisal process so that when the individual has lower hope, they are more likely to focus on the potential for failure and experience frustration and apprehension. Comparatively, individuals with greater hope are more likely to experience positive emotional dispositions (e.g., zest) when presented with new goal opportunities. Snyder (2002) articulates hope as a cognitive model whereby perceptions of success/failure influence an emotional reaction. The reader is encouraged to review Snyder (2002) for a more detailed conceptual description of the feedforward and feedback model of hope that incorporates learning histories, pre-event appraisals, and event sequences of goal pursuit.

1.2. Snyder's Dispositional Hope Scale

Operationalizing the psychological theory of hope, Snyder developed the Dispositional Hope Scale (DHS) to measure an individual's capacity to engage in pathway and agentic cognition (Snyder et al., 1991). Snyder distinguishes hope from similar goal-oriented constructs such as optimism and self-efficacy, with both lacking the pathway component of the cognitive self-appraisal process. The DHS, as an individual difference measure, has demonstrated acceptable psychometric support, including internal consistency and test-retest score reliability across multiple sample characteristics (cf. Hellman et al., 2013). Studies have demonstrated that scores obtained from the dispositional hope measure provide sound structural validity estimates distinct from measures of self-efficacy and optimism (cf. Rand, 2018). Researchers have used Snyder's DHS to establish hope's importance in predicting physical, psychological, and social wellbeing outcomes (Gallagher & Lopez, 2018). Additionally, DHS scores have been associated with work-related outcomes such as performance, job satisfaction, and commitment (Peterson & Byron, 2008). Hope has also been associated with lower burnout and secondary traumatic stress, and higher work-related meaning (Einav et al., 2024; Mouton, 2023; Passmore et al., 2020; Pharris et al., 2022). Higher hope managers have been associated with higher-performing units, better retention, and higher team satisfaction (Luthans & Peterson, 2002). Indeed, Snyder's hope theory and subsequent measure of dispositional hope have resulted in positive outcomes for both employees and organizations (Luthans & Jensen, 2002; Snyder & Lopez, 2002).

1.3. Refining hope theory: perceived collective hope

The central aim of this research is to extend Snyder's (2002) hope theory by introducing *perceived collective hope*, in which the capacity to pursue goals is appraised for the group rather than the individual. Perceived collective hope builds on Snyder's recognition that hope can be supported by external sources, in this case through the perceived capacity for pathways and agency of group members (Snyder et al., 1997). Snyder envisioned this extension, noting that “hope theory also is applicable to people in larger units … where people can work together to meet shared goals” (Snyder et al., 2018, p. 37).

Consistent with Snyder's expectancy framework, we argue that employees engage in a cognitive appraisal of their group's capacity to pursue goals. This appraisal, shaped by prior experiences, creates a dispositional expectation of collective agency and pathways. Employees assess both the group's ability to strategize and overcome barriers and its determination to mobilize toward shared goals. Accordingly, self-talk shifts from *“I can do this”* to *“we can do this”* and from *“I can find a way”* to *“we can find a way.”* Just as individual hope emerges when goals activate pathways and agency cognitions, perceived

collective hope reflects the belief that a group can set clear goals and work together to achieve them. Importantly, goals that may be perceived as overwhelming or unattainable individually can become achievable through collective effort.

Perceived collective hope also benefits from Snyder's earlier distinctions between hope, self-efficacy, and optimism. Group efficacy (Gibson, 1999), for example, parallels the appraisal of collective agency but lacks the pathways component central to hope. Moreover, group efficacy is typically conceptualized at the group level, whereas perceived collective hope is an individual-level perception. Similarly, although related to *collective future orientation* (Aspinwall & Leaf, 2002; Chernyak-Hai & Cohen-Chen, 2022), perceived collective hope is differentiated by its focus on present appraisals of pathway and agency capacities. Snyder emphasized that hope is inherently future-oriented only insofar as it reflects current evaluations of these capacities (cf. Shorey et al., 2002). Thus, perceived collective hope is distinguished from collective future orientation by its emphasis on actionable, goal-directed appraisals.

Our refinement of Snyder's theory incorporates employees' appraisal of their organization's capacity to set meaningful goals. Taken together, this dispositional appraisal represents the starting point for group goal pursuit. We define *perceived collective hope* as the individual's perception that the group or organization can (a) articulate a shared vision by setting clear and meaningful goals, (b) identify and navigate pathways to achieve these goals, and (c) sustain the agency necessary to endure their pursuit toward the common goal.

The unique contribution of this study is the development of a new measure of perceived collective hope. We further examine its relationships with individual hope, perceived organizational support, burnout, and affective commitment (cf. Chernyak-Hai et al., 2024) to establish its incremental validity. By offering a reliable and valid measure, we provide researchers and practitioners with a tool to extend the benefits of hope theory to organizational and group contexts.

2. Current study

Theory suggests that successful groups are grounded in collective hope, where shared efforts are perceived to be more efficient and effective when pursuing organizational goals (Snyder, 2002; Snyder et al., 1997). Consistent with Snyder's hope theory, we hypothesize the existence of perceived collective hope as a psychological state distinct from individual hope. Additionally, we hypothesize that perceived collective hope will make a unique contribution to both burnout and affective

commitment, over and above individual hope and perceived organizational support. To the extent that these hypotheses are supported, perceived collective hope may offer a new line of research to advance organizational and applied psychology of effective goal pursuit strategies.

In the first phase, item generation and reduction strategies were used to develop a new measure of perceived collective hope. The second phase of this research used three large samples to test the psychometric validity and reliability of perceived collective hope and test the convergent validity of this new measure with burnout and affective commitment as target variables. In sample 1, exploratory and confirmatory factor analysis strategies were used to test if perceived collective hope is distinct from Snyder's individual hope. Structural equation modeling was used to examine the incremental validity of perceived collective hope over-and-above individual hope with burnout as the target variable. In sample 2, exploratory factor analysis was used to investigate the distinction between perceived collective hope and perceived organizational support. Structural equation modeling examined the incremental validity of perceived collective hope to burnout over-and-above perceived organizational support. In sample 3, structural equation modeling was used to test further the incremental validity of perceived collective hope to affective commitment over-and-above perceived organizational support.

To test the potential value of perceived collective hope, we selected burnout and affective commitment as target variables to examine the incremental validity of perceived collective hope relative to the well-established predictor variable of perceived organizational support. Burnout refers to an adverse psychological response to a broad range of ongoing occupational demands that exceed the internal and external resources needed to buffer the demands, resulting in prolonged psychological stress (Bakker & Demerouti, 2007; Demerouti et al., 2003). Job burnout is characterized by emotional exhaustion and disengagement from one's work (Demerouti et al., 2003). Research using measures of job burnout has consistently shown associations with lower productivity, worse job attitudes, and/or increased withdrawal behavior (Demerouti et al., 2003). Job burnout is thought to be of particular concern, as high job demands combined with limited resources and/or uncertain environments can result in prolonged stress across diverse organizational contexts (Sciepura & Linos, 2022). Job burnout is a relevant reference variable for the current study because research has also linked Snyder's conception of individual hope with lower job burnout (Pharris et al., 2022; Reichard et al., 2013). Furthermore, individual hope and perceived collective hope are potential resources that leaders can nurture to buffer stress associated with job demands (Ong et al., 2006).

Affective commitment refers to the emotional bond employees hold toward their organizations (Meyer & Allen, 1991). Employees who develop affective commitment tend to have a higher level of identification with their organizations and willingness to pursue their goals (Rhoades et al., 2001). Affective commitment has shown significant associations to burnout, performance, turnover, citizenship behavior, job satisfaction, and job involvement (Meyer et al., 2002).

Perceived organizational support (POS) refers to the employee's perception that the organization values their contribution and is concerned with their well-being (Eisenburger et al., 1986). Previous research has shown POS as an important variable in the context of workplace well-being, as POS is significantly correlated with lower burnout and greater affective commitment (Kurtessis et al., 2017; Rockstuhl et al., 2020). Rhoades and Eisenberger's (2002) meta-analyses identified affective commitment as one of the strongest consequences of POS.

Given the established recognition of burnout, affective commitment, and perceived organizational support to research and practice, these variables were selected to test the incremental validity estimates using the new measure of perceived collective hope. Chernyak-Hai et al. (2024) provide an empirical foundation showing significant effects of hope in relation to both perceived organizational support and affective commitment. More specifically, Chernyak-Hai et al. (2024) found that the pathways and agency elements of hope were complementary mediators between perceived organizational support and affective commitment.

3. Collective hope scale development

3.1. Item generation

A panel of two university faculty and seven graduate students from public administration, urban design, social work, and psychology was recruited to generate and evaluate survey items based on the perceived collective hope definition. Prior to item generation, each panel member was asked to read Snyder's (2002) “Rainbows in the Mind” conceptual article and engaged in a group discussion to ensure familiarity with hope theory. Panel members were then instructed to generate as many items as possible independently toward a collective perspective on goals, pathways, and agency. This item generation process resulted in 63 statements grouped into the following categories: 19 items related to goals, 24 pathway items, and 20 items representing agency.

3.2. Item reduction and content validity process

The panel was again presented with the definition of perceived collective hope and asked to evaluate the 63 items independently. Panel members were instructed to identify redundant items and/or items that lacked content validity toward the definition of perceived collective hope. Upon completing individual evaluations, the panel members met as a group to discuss items and achieve consensus on those items that best represented the construct of perceived collective hope. The result of this content validity process is a six-item Collective Hope Scale (CHS) consistent with Snyder's hope theory. Two goal questions include the following: *Our organization can identify shared goals* and *Our organization can achieve its goals*. Two pathway questions consist of the following: *Our organization can identify one or more ways to attain its goals* and *Our organization can find resources to achieve its goals*. Two agency questions were *Our organization has the willpower to achieve its goals, even when times are tough* and *Our organization will actively pursue its goals*. Individual differences on each item are captured using a six-point Likert-type response format (1=definitely false; 2=mostly false; 3=slightly false; 4=slightly true; 5=mostly true; 6=definitely true), with total scores ranging from a low of six to a high of 36. Higher scores represented a greater sense of perceived collective hope.

4. Sample 1: testing the factor structure and incremental validity of the collective hope scale with dispositional hope and burnout

4.1. Procedure

To begin evaluating the existence of perceived collective hope as a distinct psychological state, the Collective Hope Scale (CHS) was tested using a large sample of employees (N=15,892). All participants were public sector employees from a single state in the South Central region of the United States. Participants represented all 110 state departments and were recruited to participate as part of an anonymous annual employee climate survey. Participants represent a diverse workforce in the areas of agriculture, education, human services, health and mental health, public safety, transportation, and wildlife/tourism. Surveys were distributed in the internal email system by the state department workgroup responsible for the state's annual employee climate survey. The researchers for this study were provided with an anonymized electronic database of responses. Participants provided consent in the survey and could decide to end participation at any point. The total size of

the target population was unknown due to position vacancies, absences, etc.; the state management system estimated a workforce of approximately 30,000 employees. Thus, we estimate approximately a 50% response rate.

A data-sharing agreement was reached with the research team, and the survey was approved by the state IRB and the research team's university IRB (IRB no. 064032021). Statistical analyses were computed with IBM SPSS (version 26.0) using the Amos add-on (Arbuckle, 2010). The study was not preregistered. Data and research materials are available upon request from the authors.

4.2. Participants

Most participants reported their sex as female (64.0%), and a majority of participants reported their race as Caucasian (74.1%; African American=8.9%; American Indian=8.0%; Asian=2.0%; Hispanic=4.0%; Other=3%). Most participating employees (66.9%) reported working in the public sector 5+ years, with 33.1% reporting working in the public sector for less than 5 years. Thirty percent of employees reported being in supervisory positions, and 70% working in non-supervisory roles.

4.3. Instruments

Perceived collective hope was measured using the six-item Collective Hope Scale (CHS) developed for this study. Perceived collective hope refers to the employee's perception that the organization set sclear goals and that members of the group can identify pathways strategies and possess the agency to engage in organizational goals. Higher scores reflect higher perceived collective hope.

Individual hope was measured using Snyder's Dispositional Hope Scale (DHS; Snyder et al., 1991). The DHS is an 8-item scale scored with an eight-point Likert response format (1=definitely false; 8=definitely true). Consistent with hope theory, the DHS measures hope across the dimensions of agency and pathways thinking, with four items capturing pathways thinking and four items measuring agency (Snyder et al., 1991). Total hope scores on the DHS are obtained by summing the four pathways thinking and four agency items, with higher scores reflecting higher levels of hope. A reliability generalization study indicated that the DHS has produced good reliability estimates across samples (Hellman et al., 2013). The DHS has also shown good validity, with DHS scores negatively correlating with variables associated with dysphoria and positively

correlating with an array of other variables associated with wellbeing in various samples (Ong et al., 2018; Snyder et al., 1991).

Job burnout was measured using the Oldenberg Burnout Inventory (OLBI; Demerouti et al., 2003). The OLBI is a 16-item self-report scale that uses a five-point rating scale (1=strongly disagree; to 5=strongly agree) to measure job burnout across two dimensions, disengagement and exhaustion (Demerouti et al., 2003). The disengagement dimension refers to distancing oneself from work and developing cynical and negative attitudes and behavior toward one's job (Bakker & Demerouti, 2008). The exhaustion dimension relates to feelings of fatigue and emptiness concerning work (Bakker & Demerouti, 2008). The OLBI has been used extensively, exhibiting good psychometric properties of both reliability and validity (Demerouti et al., 2003).

4.4. Missing data

Before performing any statistical analyses, we assessed the degree of missing responses for each of the variables. No variable had more than 10% missing data, a threshold that has been referenced as a cutoff over which the missing data can bias parameter estimates (Bennett, 2001). Although the rate of missing data was low, we employed full information maximum likelihood analysis (FIML) to estimate the missing values. Research has consistently established that FIML is an effective tool for treating missing data while minimizing bias (Enders & Bandalos, 2001; Graham, 2009).

4.5. Data analyses

*Measurement model***.** To test for measurement qualities of the CHS, a randomly selected calibration subsample was drawn to conduct an exploratory factor analysis on items theorized to represent CHS. To establish the discriminant validity of CHS as a unique hope measure, items from Snyder's Dispositional Hope Scale (DHS) were used for comparison. The DHS was selected to test the discriminant validity of the CHS because of the DHS's theoretical similarity to collective hope and research demonstrating a negative relationship between DHS scores and job burnout (Passmore et al., 2020; Pharris et al., 2022). Next, a second randomly selected validation subsample was used to perform a confirmatory factor analysis (CFA) on the items recovered from the initial EFA. If the CFA produces results consistent with the EFA, this result would add evidence of the existence of collective hope as a distinct psychological state. Within this subsample, both the convergent and discriminant

validity of the CHS and the DHS were evaluated using maximum likelihood fit indices, average variance extracted (AVE) testing, and heterotrait–monotrait ratio (HTMT) testing.

Incremental validity of the CHS. After establishing the adequate measurement of collective hope with the calibration and validation subsamples, we moved to test the incremental validity of collective hope in relation to the dependent variable of burnout. Incremental validity testing was performed using the remaining *holdout sample*. All calculations were performed with SPSS using the Amos 19 add on (Arbuckle, 2010).

4.6. Exploratory factor analysis for the calibration subsample

The first random subsample (*n'*=958) was used as a calibration sample for the EFA. Prior to evaluating the results of the EFA, a KMO test and Bartlett's test of sphericity were used to evaluate the adequacy of item commonalities for the performance of an EFA. Maximum likelihood estimations were used for the EFA with an oblique rotation. Both the pattern and the structure matrix of the oblique rotation were examined. An a priori threshold was used to extract factors, with the threshold being factors with eigenvalues greater than 1 and at least three items loading >.42 (Comrey & Lee, 1992). A scree plot was also examined to provide additional data on the number of extracted factors.

4.7. Confirmatory factor analysis for the validation subsample

The second random subsample (*n'*=958) was used for a CFA. The CFA was used to validate the factor structure discovered in the calibration subsample. Multiple commonly used fit indices were explored to test the goodness of fit of the proposed model. The root mean squared error of approximation (RMSEA) was used, with scores ≤.10 indicating acceptable fit and ≤.08 indicating good fit (Browne & Cudeck, 1993; MacCallum et al., 1996). The comparative fit index (CFI) was employed with a value of .90 considered to be the minimum for model fit (Bentler, 1992). The standardized root mean squared residual (SRMR) was also used to evaluate model fit, with a score of≤.08 considered a good fit. Finally, the χ^2 test with a threshold of $p>.05$ was also considered, although it is well known that χ^2 is sensitive to larger sample sizes (>200) and frequently exhibits a $p<.05$ even in the case of good fit according to other indices (Kline, 2016). As a result, it is widely considered acceptable to conclude that a model fits the data even if the χ^2 test is statistically significant so long as additional fit indices meet their established criteria for fit (Bowen and Guo, 2011).

Average Variance Extracted. We also assessed the AVE values of the respective latent variables of collective hope and individual hope. The AVE is a test of convergent validity (Hair et al., 2014). The AVE of a proposed latent variable reflects the communality, or the common variance, shared by the items purported to measure the construct. An AVE value of>.50 is an accepted threshold of adequate convergent validity, with an AVE >.50 indicating that, on the average, the underlying latent variable of a set of items explains more than 50% of the common variance of those items. Correspondingly, an AVE value of>.50 also indicates that less than 50% of the variance of those items is error variance (Hair et al., 2014).

*The Heterotrait–Monotrait Ratio***.** Along with the AVE, we also assessed the HTMT ratio of the proposed items of collective hope to the items of individual hope. The HTMT is a test of discriminant validity, operating by comparing the average of the correlations of all the indicators with each other to the average of the correlations of indicators theorized to measure each respective, underlying latent variable (Henseler et al., 2015). The result is a ratio that is used to establish discriminant validity, with a ratio <.85 reflecting a conservative threshold of discriminant validity (Henseler et al., 2015).

4.8. Structural model testing the incremental validity of the collective hope scale

Identical fit indices, as described for the CFA, were used in the holdout sample to test the stability of the factor structure of the proposed variables. Using the holdout sample, we tested the incremental validity of CHS over-and-above dispositional hope with burnout as the target variable. In addition to the fit indices, in the holdout sample (n'=12,630), standardized β values of the relationships between variables were assessed. Squared multiple correlations (R^2) were also evaluated for the dependent variable of burnout. Examining β values and R^2 values allowed an assessment of the relative strength of correlations between collective hope in the workplace and individual hope to lower burnout. Such an analysis allowed an assessment of the utility of measuring collective hope in the workplace to predict less burnout. We theorized that perceived collective hope would account for significant unique variance in burnout.

4.9. Exploratory factor analysis for the calibration sample

First, we performed an EFA for the calibration subsample (n'=958) to determine if perceived collective hope existed independent of individual hope. We utilized oblique rotations (direct oblimin) with maximum likelihood estimation. An oblique rotation was chosen because we theorized that collective hope and individual hope are correlated. We started with the Kaiser–Meyer–Olkin (KMO) to test whether the variance in the sample was adequate to support interpreting the results

of an EFA. The sample's KMO=.936, which is considered “marvelous” for EFA interpretation (Hutcheson & Sofroniou, 1999). Such a result supports the conclusion that the variance within the sample was adequate for an EFA.

We then turned to interpreting the pattern matrix of the oblique rotation. The pattern matrix revealed a simple factor structure of two factors with eigenvalues >1. These two factors also had all items loading with scores >.70 on their respective factors. Factor I represented only items of the CHS, with the factor accounting for 49% of total variance. Factor II consisted of the items from the Dispositional Hope Scale (Snyder et al., 1991) and accounted for 20% of total variance. The two factors combined accounted for 69% of the total variance among the items. An examination of the structure matrix of the rotation and the scree plot also supported the existence of the two factors. Table 1 contains the empirical values of the EFA.

Table 1. A factor analysis of perceived collective hope and dispositional hope items using oblique rotation.

Pattern Matrix		**Factor**	
Scale	Item	I	II
DHS	I can think of many ways to get out of a jam.	−.056	**.666**
DHS	I energetically pursue my goals.	.073	**.692**
DHS	There are lots of ways around a problem.	.004	**.667**
DHS	I can think of many ways to get the things in life that are important to me.	−.032	**.793**
DHS	Even when others get discouraged, I know I can find a way to solve the problem.	.020	**.786**
DHS	My past experiences have prepared me well for the future.	,014	**.778**
DHS	I have been pretty successful in life.	.004	**.721**
DHS	I have met the goals I set for myself.	.009	**.731**
CHS	Our organization can identify shared goals.	**.820**	.052
CHS	Our organization can achieve its goals.	**.922**	−.007

Pattern Matrix		Factor	
CHS	Our organization can identify one or more ways to attain its goals.	**.919**	.006
CHS	Our organization can find resources to achieve its goals.	**.889**	−.009
CHS	Our organization has the collective willpower to achieve its goals.	**.923**	−.033
CHS	Even when times are tough, our organization will actively pursue its goals.	**.841**	.004
Percentage of Variance Explained		49.24	20.0

Notes: DHS refers to Dispositional Hope Scale; CHS refers to Perceived Collective Hope Scale.

n'=958.

4.10. Item analysis for the calibration sample

Given the results of the exploratory factor analysis demonstrating simple structure for scores obtained from the perceived Collective Hope Scale (CHS), the items were subsequently evaluated for internal consistency reliability. Table 2 presents the results of the item analysis for the six-item collective hope scale. Item means ranged from 4.45 to 4.78 on a six-point Likert-type response format. Skewness for each item was left skewed, ranging from −.796 to −1.15. Kurtosis for each item ranged from 1.01 to 1.48. Corrected item-total correlations for each item are large, ranging from a low of .826 to a high of .900. Finally, evaluation of Cronbach's α if an item is deleted shows no meaningful gains. Subsequently, Cronbach's α obtained from the calibration sample scores shows a high level of estimated reliability (α=.957). Combined, the results of the EFA and the internal consistency reliability analyses of the CHS present a distinct unidimensional measure extending Snyder's hope theory (2002).

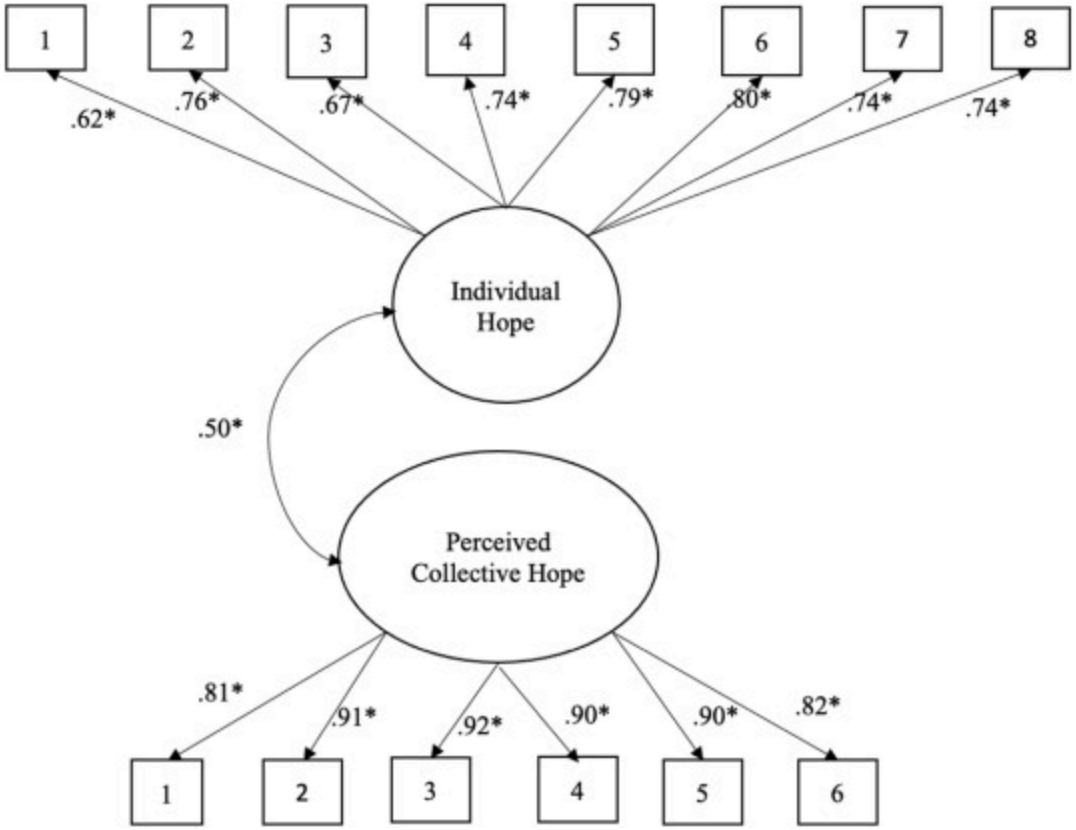
Table 2. Item analysis of perceived collective hope scale.

Item	Mean	Std. Deviation	Skewness	Kurtosis	Corrected Item-Total Correlation	Cronbach's α if Item Deleted
CH1	4.45	1.11	−.796	1.05	.826	.953
CH2	4.63	1.10	−.965	1.21	.896	.946
CH3	4.69	1.08	−1.05	1.57	.900	.945
CH4	4.63	1.13	−1.06	1.50	.844	.952
CH5	4.61	1.20	−1.05	1.15	.895	.946
CH6	4.78	1.12	−1.15	1.72	.835	.952

Notes: *N*=958; scale mean 27.79 (SD=6.12); Cronbach's α=.957.

4.11. Convergent and discriminatory validity using the validation sample

The EFA having been completed on the calibration subsample, the next step was a CFA on the validation subsample (*n*'=958) to test the stability of the factors recovered with the EFA. Although the EFA recovered a simple factor structure of two distinct factors consisting of perceived collective hope and individual hope, we elected to begin the CFA stage by testing the fit of a single-factor model. This single-factor model contained all the proposed collective hope items and individual hope items loading onto a single factor. As predicted, the single-factor model produced a poor fit (χ^2=4796.6, *df*=77; *p*>.001; RMSEA=.214 [90% CI: .208, .219]; CFI: .679; SRMR: .193). We then moved to test the two-factor model suggested by the EFA. Consistent with the EFA, the CFA two-factor model produced a fit that exceeded minimum thresholds (χ^2=906.7, *df*=76; *p*<.001; RMSEA=.09 [90% CI: .085, .095]; SRMR: .044; CFI: .944). All factor loadings were >.60 and statistically significant. Fig. 1 reflects all the empirical values of the two-factor CFA model.



Download: Download high-res image (224KB)

Download: Download full-size image

Fig. 1. Confirmatory factor analysis using the validation subsample *(N*=958). *Notes*: $*p<.001$; $\chi^2=906.64$, df=76; $p<.001$; RMSEA=.09 [90% CI: .085, .095]; SRMR: .044; CFI: .944.

Average Variance Extracted. To further test the distinctiveness of the CHS scale items in measuring a unique psychological state, we performed the AVE test of convergent validity. The AVE test also indicated that collective hope and individual hope items, respectively, measured two distinct latent variables. Both the AVE for the CHS items (AVE=.78) and the DHS items (AVE=.54) exceeded the threshold of>.50, indicating evidence of convergent validity (Hair et al., 2014).

The Heterotrait–Monotrait Ratio. The HTMT ratio also indicated that the CHS and the DHS measured distinct latent variables. The HTMT ratio between the theorized CHS of items to the DHS items was .47, well below the .85 cutoff for establishing discriminant validity (Henseler et al., 2015). Table 3 contains additional empirical values of the preferred two-factor model.

Table 3. Result summary for reflective measurement model of a two-factor solution (DHS; CHS).

Latent Variable	Items	Outer Loadings	Indicator Reliability (Common Variance)	Reliability (Cronbach's alpha)	AVE
DHS Items (Individual Hope)	DHS_1	.62	.38	.90	.54
	DHS_2	.76	.58		
	DHS_3	.67	.45		
	DHS_4	.74	.55		
	DHS_5	.79	.63		
	DHS_6	.80	.64		
	DHS_7	.74	.55		
	DHS_8	.74	.55		
CHS Items (Collective Hope)	CHS_1	.81	.66	.95	.78
	CHS_2	.91	.83		
	CHS_3	.92	.85		
	CHS_4	.90	.81		
	CHS_5	.90	.81		
	CHS_6	.82	.67		

Note: The HTMT ratio between DHS items and CHS items was .47.

4.12. Collective hope scale incremental validity using the holdout sample

Having established the measurement stability of CHS scores and DHS scores in measuring two distinct factors, we turned to modeling each as an antecedent of job burnout (n=13,588) to test the incremental validity of CHS over-and-above DHS. Prior to testing the model, we examined the internal consistency of all the measures. The three respective measures produced adequate reliability, with the CHS=.956, the DHS=.901, and the OLBI=.862. Also, an examination of the zero-order correlation table indicated that all measures were correlated in the expected directions. Table 4 contains the correlations, means, standard deviations, and α for scores obtained from the measures.

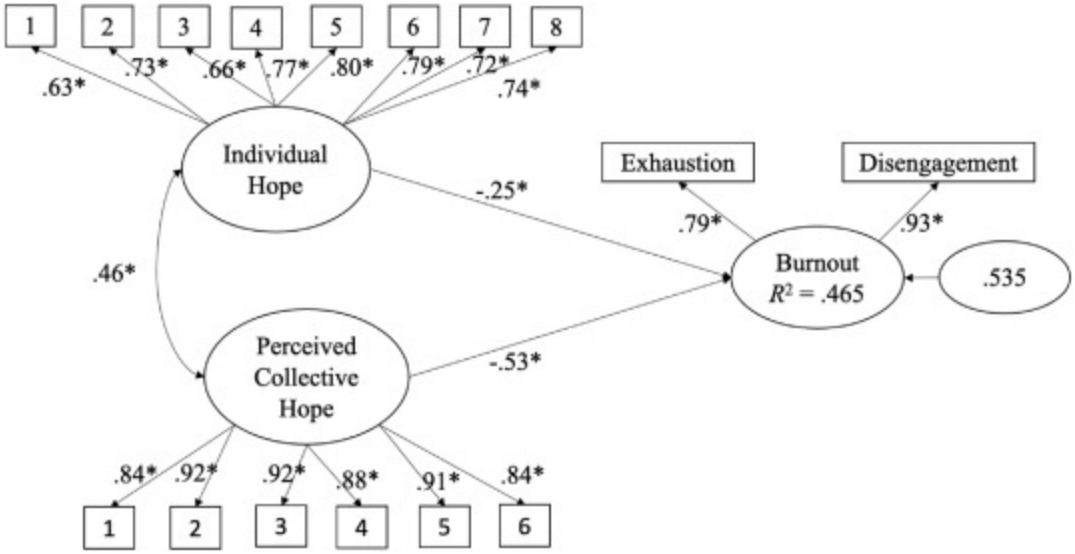
Table 4. Sample 1 zero-order correlations and descriptive statistics.

Variable	**1**	**2**	**3**
1. Perceived Collective Hope	–		
2. Hope	.424	–	
3. Burnout	−.576	−.440	–
Mean	27.64	54.49	36.30
Std. Dev.	6.04	6.82	7.70
Αλπηα	.956	.901	.862

Notes: Holdout sample (N=13,588); All correlations statistically significant (p<.001).

The model containing CHS and DHS as distinct predictors of lower job burnout produced fit that exceeded minimum thresholds (X^2=8198.27, df=101; p<.001; RMSEA=.077 [90% CI: .075, .078]; SRMR: .039; CFI: .951). The R^2 of the model indicated that both CHS and DHS scores accounted for robust variance in job burnout (R^2=.465). Incremental-validity-wise,

an f^2 test indicated that the addition of CHS as a predictor of lower burnout relative to DHS produced an f^2=.10. According to the heuristics of the f^2 test (Cohen, 1988), CHS's f^2 scores were approaching the "moderate" category in terms of variance accounted for in lower job burnout over and above DHS scores. An examination of the standardized β values indicated that CHS had a strong negative association (β=−.53, p<.001) with lower burnout relative to individual hope (β=−.25, p<.001). Fig. 2 reflects the numerical values of the structural model used to test the incremental validity of CHS.



Download: Download high-res image (216KB)

Download: Download full-size image

Fig. 2. Incremental validity of perceived collective hope with individual hope and burnout with standardized β values using the holdout sample (N=13,558). *Notes*: ∗p<.001; χ^2=8198.27, df=101; p<.001; RMSEA=.077 [90% CI: .075, .078]; SRMR: .039; CFI: .951.

4.13. Multi-group analysis testing for measurement invariance across race and gender

To test for measurement invariance between the demographic groups of gender and race on the model testing the incremental validity of CHS in relation to DHS and lower job burnout, we performed two separate multi-group analyses. These analyses compared the fit of the model between participants who reported their race as White/Caucasian and

participants who reported their race as non-White and between the male and female groups. First, we compared the parameter estimates of a model of CHS as a unique predictor of lower job burnout over DHS scores between a group of those self-reporting as non-White (n=3133) and a group of those self-reporting as White (n=10,078). We made the comparison by fixing the parameters of the model between the two groups to be equal. When then compared the fit of the fixed model to the fit of a model without fixed parameters. We found a Δ CFI=.01 between the two. Accepted heuristics suggest that a ΔCFI ≤.01 indicates measurement invariance between groups (Cheung & Rensvold, 2002). We then performed the same Δ CFI comparison between a group reporting female gender (n=4812) and a group reporting male gender (n=8614). We again found a Δ CFI=.01. The results of both tests suggest measurement invariance of the model across both race and gender groupings.

5. Sample 2: test of incremental validity of the collective hope scale to burnout over and above perceived organizational support

While the first sample established that CHS scores were distinct from DHS in relation to burnout, we sought to distinguish CHS scores further from perceived organizational support given its established theoretical and empirical value in organizational research. Thus, to further validate the Collective Hope Scale (CHS), we collected data from a second large sample of public services employees (N=3285). As stated, perceived organization support (POS) was included to further validate the CHS. Should the results of sample 2 indicate CHS is both independent of POS and accounts for significant unique variance in burnout, this would provide additional empirical evidence that perceived collective hope is a psychological state that offers a new line of inquiry in organizational behavior.

5.1. Procedure

Participants were human service employees in a public sector. Employees were administered an anonymous web-based survey as part of their annual employee climate survey. The researchers were not part of the recruitment, selection, or consenting of participating employees and were provided with de-identified data. Participation in the survey was voluntary, and the protocol was approved by the institution's IRB as a modification described in Section 4.1.

5.2. Participants

The participants comprised a large sample (N=3285) of human service public sector employees from a single state in the South Central United States. Most participants (77.4%) reported as non-supervisors. Regarding tenure in the organization, 13.1% reported employment of less than one year; 25.4% have been employed between one and five years; 21.1% employed six to 10 years; 15.8% employed 11–15 years; and 24.6% employed 16 or more years. No other demographic data were provided to the research team.

5.3. Instruments

For sample 2, in addition to the CHS and the OBI described for sample 1 (see Section 4.2), we also administered the Survey of Perceived Organizational Support (SPOS, Eisenberger et al., 1986). The 8-item Survey of Perceived Organizational Support (Eisenberger et al., 1986) was used to measure the employees' perception that the organization valued their contributions and was concerned with their well-being. Each item in the SPOS was scored based on a 7-point Likert scale (0=strongly disagree; 6=strongly agree). The scale is a unidimensional measure, with the scores for the 8 items summed to produce total SPOS scores, with higher scores indicative of greater perceptions of organizational support. A reliability generalization study of the SPOS has demonstrated that the SPOS has consistently produced adequate α scores across a variety of samples (Hellman et al., 2006). Results from a variety of studies have also supported the validity of the SPOS (Caesens et al., 2019; Shore & Tetrick, 1991).

5.4. Data analysis

Before performing any statistical analyses, we assessed the degree of missing responses for each variable using the method described in Section 4.3. We again employed a data split to test CHS as a distinct measure and its incremental validity relative to SPOS. With a calibration sample (n=1644), we performed an EFA to determine if the items of the CHS loaded on a distinct factor independent of the items of the SPOS. We tested for the adequacy of variance for an EFA using the KMO test. We employed an oblique rotation using maximum likelihood estimations. Subsequently, we then used a validation sample (n=1641) to test a structural model to determine if CHS accounted for unique variance in lower burnout independent of POS. We employed SEM using the same fit statistics and thresholds described previously.

5.5. Exploratory factor analysis for the calibration sample

Before interpreting the results of the EFA, we reviewed the KMO test to determine if the variance in the sample was adequate for an EFA. The KMO results (.951) indicated that the variance in the sample was “marvelous” (Hutcheson & Sofroniou, 1999) and thus well-suited for interpretation of EFA results. Turning to interpreting the EFA, examination of the pattern matrix of the oblique rotation resulted in a simple factor structure of two factors with eigenvalues >1. All items loaded with scores >.70 on their respective factors. Factor I represented all the items of the SPOS, accounting for 60% of total variance. Factor II consisted of all items of the CHS, accounting for 11% of total variance. The two factors combined accounted for 71% of the total variance. An examination of the structure matrix of the oblique rotation and a scree plot also supported the existence of the two factors. Finally, Cronbach's α values were robust for both Factor I, the SPOS (α=.942), and for Factor II, the CHS (α=.937). Overall, the EFA supported a simple factor structure of the two latent factors of CHS and SPOS. Table 5 contains the empirical values of the EFA.

Table 5. A factor analysis of perceived collective hope and perceived organizational support using oblique rotation (direct oblimin).

Pattern Matrix		**Factor**	
Scale	**Item**	**I**	**II**
SPOS	This organization shows very little concern for me.	**.930**	.065
SPOS	Even if I did the best job possible, the organization would fail to notice.	**.891**	.058
SPOS	The organization would ignore any complaint from me.	**.815**	.013
SPOS	This organization takes pride in my accomplishments at work.	**.815**	−.057
SPOS	The organization cares about my general satisfaction at work.	**.796**	−.088
SPOS	The organization really cares about my well-being.	**.760**	−.116
SPOS	This organization fails to appreciate any extra effort from me.	**.747**	.072
SPOS	This organization values my contribution to its well-being.	**.728**	−.157

Pattern Matrix		Factor	
Scale	**Item**	**I**	**II**
CHS	Our organization can achieve its goals.	−.031	**−.904**
CHS	Our organization has the collective willpower to achieve its goals.	−.019	**−.894**
CHS	Our organization can identify one or more ways to attain its goals.	−.013	**−.878**
CHS	Even when times are tough, our organization will actively pursue its goals.	.008	**−.817**
CHS	Our organization can find resources to achieve its goals.	.034	**−.804**
CHS	Our organization can identify shared goals.	.080	**−.747**
Percentage of Variance Explained		59.6	10.8

Notes: SPOS refers to the survey of perceived organizational support; CHS refers to the perceived collective hope scale. n=1644.

Having completed the EFA on the calibration subsample, we subsequently performed a CFA on the validation subsample (n'=1641). Once again, although the EFA recovered a simple factor structure of two distinct factors, the CHS and SPOS, we elected to begin the CFA stage by testing the fit of a single-factor model. This model contained all the proposed CHS items and SPOS items, loading onto a single factor. As predicted by the results of the EFA, the single-factor model of the proposed CHS items and the SPOS items produced a poor fit (χ^2=5559.72; df=77; p>.001; RMSEA=.208 [90% CI: .204, .213]; CFI: .734; SRMR: .11). We then tested the two-factor model suggested by the EFA. Consistent with the EFA, the CFA modeling a two-factor model produced fit values that exceeded minimum thresholds (χ^2=1286.74, df=76; p<.001; RMSEA=.099 [90% CI: .094, .103]; CFI: .941; SRMR: .039). All factor loadings were also >.70 and statistically significant.

Average Variance Extracted Test. The AVE test also indicated that the proposed CHS items and SPOS items, respectively, were measuring two distinct latent variables. The AVE for both the proposed CHS items (AVE=.72) and the SPOS items (AVE=.65) exceeded the threshold of>.50, indicating convergent validity (Hair et al., 2014).

The Heterotrait–Monotrait Ratio. The HTMT ratio test also indicated that the CHS and the SPOS items measured distinct latent variables. The HTMT ratio of correlations between the theorized CHS items to one another versus the correlation of the CHS to the SPOS items was .675, well below the .85 cutoff for establishing discriminant validity (Henseler et al., 2015). Table 6 contains additional empirical values for the testing of the model.

Table 6. Results summary for reflective measurement model of a two-factor solution (SPOS; CHS).

Latent Variable	Items	Outer Loadings	Indicator Reliability (Common Variance)	Reliability (Cronbach's alpha)	AVE
SPOS (Organizational Support)	SPOS_1	.83	.69	.94	.65
	SPOS_2	.71	.50		
	SPOS_3	.77	.59		
	SPOS_4	.84	.71		
	SPOS_5	.83	.69		
	SPOS_6	.86	.74		
	SPOS_7	.86	.74		
	SPOS_8	.84	.71		
CHS Items (Collective Hope)	CHS_1	.81	.66	.94	.72
	CHS_2	.88	.77		
	CHS_3	.89	.79		
	CHS_4	.84	.71		
	CHS_5	.88	.77		
	CHS_6	.82	.67		

Note: The HTMT ratio between DHS items and CHS items was .68.

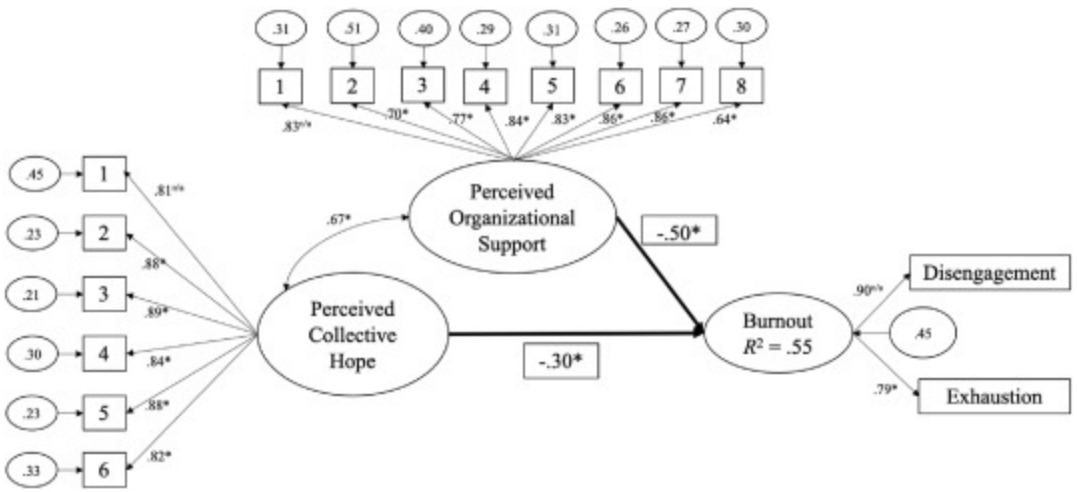
5.6. Incremental validity testing using the validation sample

Having established that the measures of perceived collective hope (CHS) and perceived organizational support (POS) were distinct, we subsequently tested the incremental validity of the CHS in accounting for variance in burnout over and above POS via a structural model. Examination of the zero-order correlation table indicated that all measures were correlated in the expected directions. Table 7 contains the correlations, means, standard deviations, and α for scores obtained from the measures. The results shown in Fig. 3 indicated that the structural model containing the CHS and SPOS as distinct predictors of burnout produced fit statistics that exceeded minimum thresholds (χ^2=1295.7, df=101; p<.001; RMSEA=.085 [90% CI: .081, .089]; SRMR: .035; CFI: .942). An examination of the R^2 indicated that the model accounted for robust variance in burnout (R^2=.552). An f^2 test indicated that the addition of CHS as a predictor for burnout accounts for significant variance over and above POS (f^2=.07). A further examination of the standardized β values indicated that CHS has a significant negative relationship with job burnout (β=−.30, p<.001) with POS also showing a negative association (β=−.50, p<.001).

Table 7. Sample 2 zero-order correlations and descriptive statistics.

Variable	**1**	**2**	**3**
1. Perceived Collective Hope	–		
2. Perceived Organizational Support	.629	–	
3. Burnout	−.565	−.626	–
Mean	29.60	31.37	36.29
Std. Dev.	5.23	10.13	8.89
α	.937	.942	.898

Notes: N=1644; all correlations statistically significant (p<.001).



Download: Download high-res image (231KB)

Download: Download full-size image

Fig. 3. Incremental validity of perceived collective hope with perceived organizational support and burnout using standardized values *(*N=1641). *Notes*: $*p$<.001. χ^2=1295.7, df=101; p<.001; RMSEA=.085 [90% CI: .081, .089]; SRMR: .035; CFI: .942.

6. Sample 3: additional testing of the collective hope scale incremental validity alongside perceived organizational support as predictors of greater affective commitment

In the first two samples, the results indicated that CHS scores produced a factor that was distinct from both DHS scores and SPOS scores, with CHS exhibiting a distinct significant negative relationship with burnout. In the third sample, we sought to evaluate the potential of perceived collective hope further by adding an additional target variable. Specifically, to further validate the CHS, we included affective commitment as a target variable to further examine the incremental validity of the CHS relative to SPOS scores. Should CHS scores operate according to our theoretical understanding, the results would reflect

a significant positive relationship between CHS scores and employees' affective commitment to their organization, distinct from perceived organizational support.

6.1. Procedure

For sample 3, participants consented to an anonymous web-based survey as part of their annual employee climate survey. As with the previous samples, the researchers did not participate in the recruitment, consent, or data collection processes and were provided a de-identified database by the public sector department. The research protocol was approved as a modification by the IRB, as described in Section 4.1.

6.2. Participants

The third sample again consisted of public sector employees (N=3423) from a single state in the South Central United States. Most participants (77.0%) reported as non-supervisors. Regarding tenure in the organization, 12.2% reported employment of less than one year, 25.8% were employed between one and five years, 20.5% were employed six to 10 years, 17.2% were employed 11–15 years, and 24.3% were employed 16 or more years. No other demographic data were provided.

6.3. Instruments

For sample 3, in addition to the proposed CHS and the SPOS (Eisenberger et al., 1986) described in sections 4.2 Participants, 5.3 Instruments, sample 3 consisted of scores collected from the Affective Commitment Scale (ACS; Meyer & Allen, 1984).

Affective Commitment Scale. The ACS is an 8-item measure used to capture individual differences in respondents' perceptions of positive feelings of identification with, attachment to, and involvement in their work organization (Meyer & Allen, 1984). The ACS employs a 7-point Likert-type response format (1=strongly disagree to 7=strongly agree). Items are scored so that higher scores reflect higher levels of affective commitment.

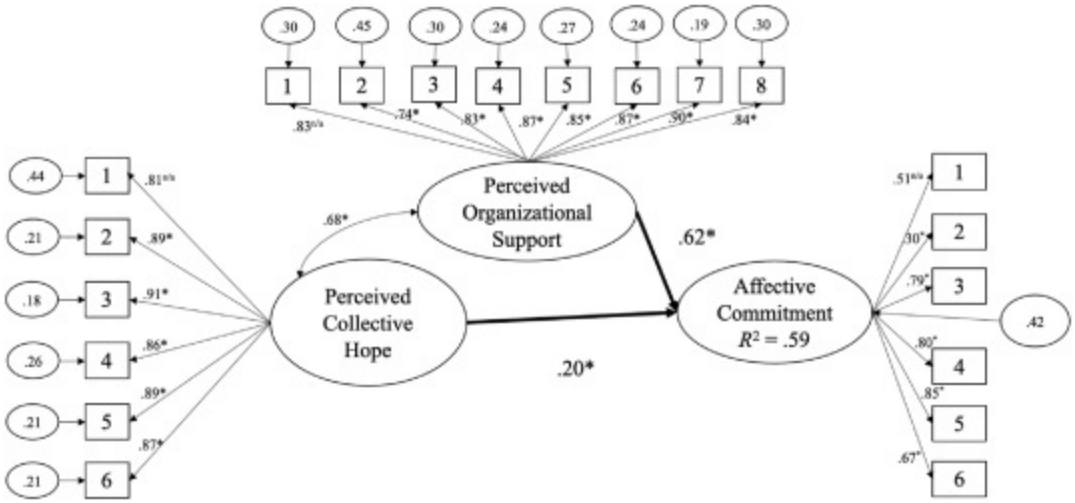
6.4. Data split

Before performing any statistical analyses, we assessed the degree of missing responses for each of the variables as described in Section 4.3. We performed a random data split to establish calibration and validation subsamples. In both models, we

tested a model that consisted of the proposed CHS and the POS as distinct, independent latent variables with the dependent variable of affective commitment. If, alongside the SPOS, the CHS accounted for unique variance in ACS scores, this would add further evidence of the incremental validity of the CHS.

6.5. Sample 3 results

As theorized, in the calibration subsample (n=1755), the model of the CHS as a unique predictor of variance in greater affective commitment provided fit that surpassed minimum fit statistics thresholds (χ^2=1277.39, df=167; p=.000; RMSEA=.062 [90% CI: .058, .065]; CFI: .957). CHS scores had a unique positive relationship with affective commitment (β=.20; p<.001). Together, CHS and POS accounted for significant variance in affective commitment (R^2=.583). A subsequent f^2 test indicated that the addition of CHS accounted for significant variance in affective commitment over and above POS (f^2=.05). In the validation subsample (n=1748), the results of testing the same model produced similar fit statistics (χ^2=1661.5, df=167; p=.000; RMSEA=.072 [90% CI: .068, .075]; CFI: .942). CHS scores again exhibited a positive relationship with affective commitment (β=.25; p<.001), with the overall model accounting for an R^2=.591 of variance (see Fig. 4). An f^2 test on the validation sample again indicated that the addition of CHS accounts for significant variance in affective commitment over-and-above POS (f^2=.09). Table 8 contains the correlations, means, standard deviations, and alpha for scores obtained from the measures.



Download: Download high-res image (244KB)

Download: Download full-size image

Fig. 4. Incremental validity of perceived collective hope with perceived organizational support and affective commitment using standardized values (N=1748). *Notes*: $*p$<.001. χ^2=1661.5, df=167; p=.000; RMSEA=.072 [90% CI: .068, .075]; CFI: .942.

Table 8. Sample 3 zero-order correlations and descriptive statistics.

Variable	**1**	**2**	**3**
1. Perceived Collective Hope	–		
2. Perceived Organizational Support	.658	–	
3. Affective Commitment	.569	.656	–
Mean	28.56	33.18	22.08
Std. Dev.	5.74	12.78	6.55
α	.952	.950	.813

Notes: N=3104. All correlations statistically significant (p<.001).

7. Discussion

The purpose of the current study was to present the development and validation results of a new measure of perceived collective hope (CHS). Perceived collective hope refers to the employees' perception that the organization can set clear goals, the members possession of the capacity to identify and pursue pathways to those goals, and the shared agency toward attaining these organizational goals. The results for the three large samples indicate that perceived collective hope is a psychological process independent of both individual hope and perceived organizational support. In addition, scores obtained using the Collective Hope Scale demonstrated significant incremental validity in accounting for variance in burnout over and above both individual hope and perceived organizational support. Additionally, perceived collective hope accounted for significant incremental validity in affective commitment over and above perceived organizational support. Based upon

the findings from these three large samples of employees, we argue that perceived collective hope adds to the organizational literature and can be measured efficiently with good psychometric properties.

The expectation of achieving a desired goal is central to hopeful thinking. Snyder's (2002) conceptualization of hope as a cognitive–motivational theory comprising of pathways thinking and agentic thinking has emerged into a robust body of research demonstrating positive outcomes in the workplace. Numerous studies have continued to support the psychometric viability of Snyder's measure (Hellman et al., 2013; Rand, 2018). Drawing from the argument of Snyder et al. (1997) that hope is enhanced through social connections where pathways and agency are potentially more effective through collective efforts toward a common goal, we conceptualized the possibility of perceived collective hope. The central aim of this study was to extend hope theory by introducing a new measure of perceived collective hope that can advance understanding of important outcomes in both group and organizational behavior. Results of the exploratory and confirmatory factor analyses as well as of testing the average variance extracted and heterotrait-monotrait ratio indicate that scores obtained from the Collective Hope Scale (CHS) measure a psychological variable independent of individual hope and perceived organizational support. Moreover, the results demonstrate that relative to individual hope, perceived collective hope is more robustly associated with lower burnout. This finding demonstrates perceived collective hope as an important extension of Snyder's individual hope conceptualization.

Furthermore, perceived collective hope can offer an important new contribution as a malleable resource to the job demand–resource model. Sample two also establishes the incremental validity of the new Collective Hope Scale in accounting for significant variance in burnout scores over and above perceived organizational support. Finally, we used a third large sample with affective commitment as a target variable to further validate the utility of perceived collective hope in relation to perceived organizational support. Taken as a whole, the results of the findings presented in this study demonstrate the potential of a new measure of perceived collective hope that can have important implications for organizational research.

The incremental validity findings of perceived collective hope in relation to perceived organizational support confirm the potential value of the new measure. Rhoades and Eisenberger (2002) state that perceived organizational support generates the employee's “assurance that aid will be available from the organization when it is needed” (p. 698). The possibility that perceived organizational support can create a supportive environment could potentially nurture the employee's cognitive self-appraisal of collective hope, leading to reduced emotional exhaustion and enhanced affective commitment. The

possibility that perceived collective hope mediates the relationship between perceived organizational support and important outcome variables is consistent with Chernyak-Hai et al.'s (2024) findings, which suggest that individual hope mediates the relationship between perceived organizational support and affective commitment.

7.1. Implications

This study advances organizational research by extending Snyder's (2002) hope theory to the construct of *perceived collective hope*. Although goal-oriented motivations have long been important to organizational theory (Argote & Greve, 2007), prior work has emphasized either individual-level cognitions or broad structural conditions. By focusing on employees' appraisals of their organizations' collective capacity to set and pursue goals, perceived collective hope offers a novel psychological mechanism that links organizational goal pursuits to individual experience. Our findings demonstrate that perceived collective hope is empirically distinct from dispositional hope, uniquely predicts burnout and affective commitment, and maintains only a moderate correlation with individual hope. This provides evidence that hope operates not only as an individual disposition but also as a group-referent perception shaped by the organizational context.

Theoretically, perceived collective hope contributes to the literature in three ways. First, it builds directly on Snyder's proposition that hope applies to larger units of analysis, refining his framework to account for group-level cognitions assessed at the individual level. Second, it differentiates hope from related constructs such as group efficacy and collective future orientation by emphasizing the dual appraisal of agency and pathways capacities in pursuit of shared goals. Third, it invites new lines of inquiry into antecedents of collective hope, including goal clarity, agreement, and perceived meaningfulness. The modest association with individual hope also raises conceptually interesting questions about divergence between personal and organizational appraisals, particularly when employees perceive strong collective willpower despite experiencing personal barriers outside work. Collectively, these contributions expand the boundaries of hope theory, integrating individual motivation with organizational psychology.

Practically, perceived collective hope provides leaders with a malleable lever for influencing workplace outcomes. Whereas individual hope is shaped by many factors outside managerial control (e.g., health, family, or leisure; Bernardo, 2010), perceived collective hope is directly tied to the organizational environment and therefore subject to leadership influence.

The development of the Collective Hope Scale (CHS) provides practitioners with a diagnostic tool to assess these perceptions and identify areas where the organizational climate supports—or undermines—shared goal pursuit.

To cultivate collective hope, leaders can adopt strategies aligned with Snyder's goals–pathways–agency framework. Communicating clear and meaningful goals provides a unifying direction. Facilitating pathway thinking through collaborative problem-solving and barrier reduction strengthens confidence in organizational strategies. Reinforcing collective agency by fostering trust, recognition, and shared ownership enhances employees' belief that “we can do this.” Finally, leaders can build agreement by engaging employees in goal setting or shared decision-making in pathway design. Together, these practices create an environment where employees believe in the group's ability to succeed, with potential downstream benefits including reduced burnout, increased commitment, and sustained organizational resilience.

In summary, perceived collective hope enriches theory by situating hope within the collective context of organizations and provides leaders with actionable guidance to foster stronger, more resilient workplaces.

7.2. Limitations and future research

Several methodological considerations should be acknowledged. First, while survey items were generated with input from content experts, the final six items selected represent only a sample of possible indicators of perceived collective hope. Inter-rater reliability and other content validity indices were not assessed, which limits confidence in the comprehensiveness of the scale development process. Second, all measures were collected concurrently through self-report, raising concerns about common method variance. Third, although the samples were large and diverse in terms of organizational type, they were drawn from a single geographic region, which limits generalizability. Finally, our analyses compared perceived collective hope primarily against dispositional hope and perceived organizational support. Broader validation against additional organizational constructs (e.g., trust, cohesion, communication, goal attainment) is still needed to strengthen construct validity.

Conceptually, the construct of perceived collective hope remains in its early stages of development. Although exploratory and confirmatory factor analyses demonstrated discriminant validity from related constructs, further theoretical refinement is needed to delineate its boundaries. For instance, the moderate correlation between individual hope and collective hope raises interesting conceptual questions. Employees may experience high collective hope due to prior group success, while

simultaneously experiencing lower individual hope shaped by personal barriers outside of work (e.g., health, family, leisure). This underscores the need to clarify the interdependence—and distinction—between individual- and collective-level hope. Additionally, differences in appraisal based on tenure highlight that newer employees may rely more on expectations than on lived experiences, suggesting variability in how collective hope is formed across employee groups.

Future research should build on these limitations in several ways. First, further psychometric evaluation of the Collective Hope Scale is needed, including item refinement, testing across different organizational structures (e.g., work units, departments, divisions), and validation in more diverse geographic and cultural contexts. Longitudinal designs would also help further establish structural relationships between perceived collective hope and workplace outcomes such as burnout and affective commitment. Second, scholars should investigate antecedents of collective hope, including goal clarity, agreement on goal value, and leader behavior that shapes collective agency and pathway thinking. Third, exploring the relationship between collective hope and related constructs such as organizational trust, cohesion, and collective future orientation will further clarify its conceptual distinctiveness. Finally, drawing on the job demands–resources model, future work should examine perceived collective hope as a malleable organizational resource that leaders can foster to buffer burnout and enhance commitment. Taken together, these steps will advance both the measurement utility and theoretical understanding of perceived collective hope, providing a stronger foundation for its application in organizational research and practice.

8. Conclusions

Despite potential limitations, the results of this three-sample study support the conclusions (1) that the Collective Hope Scale scores are distinct from individual hope and perceived organizational support and (2) that perceived collective hope is uniquely correlated with lower burnout and higher affective commitment among diverse samples of employees. Thus, perceived collective hope offers promise as a new line of inquiry.

CRediT authorship contribution statement

Chan M. Hellman: Writing – original draft, Methodology, Funding acquisition, Formal analysis, Conceptualization. **Ricky T. Munoz:** Writing – original draft, Methodology, Formal analysis. **Angela B. Pharris:** Writing – original draft, Funding

acquisition. **Shawn M. Schaefer:** Writing – review & editing, Methodology, Conceptualization. **Jason Featherngill:** Writing – review & editing, Conceptualization.

Funding

This research was funded in part by a grant from the Oklahoma Department of Human Services (#105575700).

Conflict of interest

The authors declare that they have no conflict of interest.

Recommended articles

References

Arbuckle, 2010 J.L. Arbuckle

AMOS 19

SPSS, Chicago (2010)

[Computer software]

Google Scholar ↗

Argote and Greve, 2007 L. Argote, H.R. Greve

A behavioral theory of the firm – 40 years and counting: Introduction and impact

Organization Science, 18 (3) (2007), pp. 337-349, 10.1287/orsc.1070.0280 ↗

View in Scopus ↗ Google Scholar ↗

Aspinwall and Leaf, 2002 L.G. Aspinwall, S.L. Leaf

In search of the unique aspects of hope: Pinning our hopes on positive emotions, future-oriented thinking, hard time, and other people

Psychological Inquiry, 13 (4) (2002), pp. 276-288, 10.1207/S15327965PLI1304_02 ↗

View in Scopus ↗ Google Scholar ↗

Bakker and Demerouti, 2007 A.B. Bakker, E. Demerouti

The job demands-resources model: State of the art

Journal of Managerial Psychology, 22 (3) (2007), pp. 309-328, 10.1108/02683940710733115 ↗

View in Scopus ↗ Google Scholar ↗

Bakker and Demerouti, 2008 A.B. Bakker, E. Demerouti

Toward a model of work engagement

Career Development International, 13 (3) (2008), pp. 209-223, 10.1108/13620430810870476 ↗

View in Scopus ↗ Google Scholar ↗

Bennett, 2001 D.A. Bennett

How can I deal with missing data in my study?

Australia and New Zealand Journal of Public Health, 25 (5) (2001), pp. 464-469

doi.org/10.111/j.1467-842X.2001.tb00294.x

View PDF View article View in Scopus ↗ Google Scholar ↗

Bentler, 1992 P.M. Bentler

On the fit of models to covariances and methodology to the Bulletin

Psychological Bulletin, 112 (3) (1992), pp. 400-404, 10.1037/0033-2909.112.3.400 ↗

View in Scopus ↗ Google Scholar ↗

Bernardo, 2010 A.B.I. Bernardo

Extending hope theory: Internal and external locus of trait hope

Personality and Individual Difference, 49 (8) (2010), pp. 344-949, 10.1016/j.paid.2010.07.036 ↗

Google Scholar ↗

Bowen and Guo, 2011 N.K. Bowen, S. Guo

Structural equation modeling

Oxford University Press (2011)

Google Scholar ↗

Browne and Cudeck, 1993 M.W. Browne, R. Cudeck

Alternative ways of assessing model fit

K.A. Bollen, J.S. Long (Eds.), Testing structural equation models, Sage Publication (1993), pp. 136-162

Google Scholar ↗

Caesens et al., 2019 G. Caesens, F. Stinglhamber, S. Demoulin, M. De Wilde, A. Mierop

Perceived organizational support and workplace conflict: The mediating role of failure-related trust

Frontiers in Psychology, 9 (2019), p. 2704, 10.3389/fpsyg.2018.02704 ↗

View in Scopus ↗ Google Scholar ↗

Cheavens et al., 2019 J.S. Cheavens, J.E. Heiy, D.B. Feldman, C. Benitez, K.L. Rand

Hope, goals, and pathways: Further validating the hoe scale with observer ratings

The Journal of Positive Psychology, 14 (4) (2019), pp. 452-462, 10.1080/17439760.2018.1484937 ↗

View in Scopus ↗ Google Scholar ↗

Chernyak-Hai et al., 2024 L. Chernyak-Hai, L. Bareket-Bojmel, M. Margalit

A matter of hope: Perceived support, hope, affective commitment, and citizenship behavior in organizations

European Management Journal, 42 (4) (2024), pp. 576-583, 10.1016/j.emj.2023.03.003 ↗

View PDF View article View in Scopus ↗ Google Scholar ↗

Chernyak-Hai and Cohen-Chen, 2022 L. Chernyak-Hai, S. Cohen-Chen

Collective future orientation, group-based emotions, and support for policy

Journal of Applied Social Psychology, 53 (4) (2022), pp. 1108-1121, 10.1111/jasp.12997 ↗

Google Scholar ↗

Cheung and Rensvold, 2002 G.W. Cheung, R.B. Rensvold

Evaluating goodness-of-fit indexes for testing measurement invariance

Structural Equation Modeling, 9 (2) (2002), pp. 233-255, 10.1207/S15328007SEM0902_5 ↗

View in Scopus ↗ Google Scholar ↗

Cohen, 1988 J. Cohen

Statistical power analysis for the social sciences

Lawrence Erlbaum (1988), 10.4324/9780203771587 ↗

Google Scholar ↗

Comrey and Lee, 1992 A. Comrey, H. Lee

A first course in factor analysis

Lawrence Erlbaum (1992), 10.4324/9781315827506 ↗

Google Scholar ↗

Demerouti et al., 2003 E. Demerouti, A.B. Bakker, I. Vardakou, A. Kantas

The convergent validity of two burnout instruments: A multitrait-multimethod analysis

European Journal of Psychological Assessment, 19 (1) (2003), pp. 296-307, 10.1027//1015-5759.19.1.12 ↗

Google Scholar ↗

Duncan et al., 2022 A.R. Duncan, S.B. Bell, A.L. Salvatore, C.M. Hellman

Psychosocial factors associated with dispositional hope, agency thinking, and pathways thinking in a homeless adult population

Journal of Community Psychology, 50 (7) (2022), pp. 3196-3209, 10.1002/jcop.22828 ↗

View in Scopus ↗ Google Scholar ↗

Einav et al., 2024 M. Einav, D. Confino, N. Geva, M. Margalit

Teachers' burnout- the role of social support, gratitude, hope, entitlement and loneliness

International Journal of Applied Psychology, 9 (2024), pp. 827-849, 10.1007/s41042-024-00154-5 ↗

View in Scopus ↗ Google Scholar ↗

Eisenberger et al., 1986 R. Eisenberger, R. Huntington, S. Hutchison, D. Sowa

Perceived organizational support

Journal of Applied Psychology, 71 (3) (1986), pp. 500-507, 10.1037/0021-9010.71.3.500 ↗

View in Scopus ↗ Google Scholar ↗

Enders and Bandalos, 2001 C.K. Enders, D.L. Bandalos

The relative performance of full information maximum likelihood estimation for missing data in structural equation models

Structural Equation Modeling, 8 (3) (2001), pp. 430-457, 10.1207/s15328007SEM0803_5 ↗

View in Scopus ↗ Google Scholar ↗

Gallagher and Lopez, 2018 M.W. Gallagher, S.J. Lopez

The oxford handbook of hope

Oxford University Press (2018), 10.1093/oxfordhb/9780199399314.001.0001 ↗

Google Scholar ↗

Gibson, 1999 C.B. Gibson

Do they do what they believe they can? Group efficacy and group effectiveness across tasks and cultures

Academy of Management Journal, 42 (2) (1999), pp. 138-152, 10.2307/257089 ↗

View in Scopus ↗ Google Scholar ↗

Graham, 2009 J.W. Graham

Missing data analysis: Making it work in the real world

Annual Review of Psychology, 60 (1) (2009), pp. 549-576, 10.1146/annurev.psych.58.110405.085530 ↗

View in Scopus ↗ Google Scholar ↗

Hair et al., 2014 J.F. Hair, G.T.M. Hult, C.M. Ringle, M. Sarstedt

A primer on partial least squares structural equation modeling (PLS-SEM)

SAGE Publications, Thousand Oaks, CA (2014)

Google Scholar ↗

Hellman et al., 2006 C.M. Hellman, D.R. Fuqua, J. Worley

A reliability generalization study on the survey of perceived organizational support: The effects of mean age and number of items on score reliability

Educational and Psychological Measurement, 66 (4) (2006), pp. 631-642, 10.1177/0013164406288158 ↗

View in Scopus ↗ Google Scholar ↗

Hellman et al., 2013 C.M. Hellman, M.K. Pittman, R.T. Muñoz

The first twenty years of the will and the ways: An examination of score reliability distribution on Snyder's dispositional hope scale

Journal of Happiness Studies, 14 (3) (2013), pp. 723-729, 10.1007/s10902-012-9351-5 ↗

View in Scopus ↗ Google Scholar ↗

Henseler et al., 2015 J. Henseler, C.M. Ringle, M. Sarstedt

A new criterion for assessing discriminant validity in variance-based structural equation modeling

Journal of the Academy of Marketing Science, 43 (2015), pp. 115-135, 10.1007/s11747-014-0403-8 ↗

View in Scopus ↗ Google Scholar ↗

Hutcheson and Sofroniou, 1999 G. Hutcheson, N. Sofroniou

The multivariate social scientist: Introductory statistics using generalized linear models

Sage Publication (1999), 10.4135/9780857028075 ↗

Google Scholar ↗

Kline, 2016 R.B. Kline

Principles and practice of structural equation modeling

(4th ed.), Guilford Press (2016)

Google Scholar ↗

Kurtessis et al., 2017 J.N. Kurtessis, R. Eisenberger, M.T. Ford, L.C. Buffardi, K.A. Stewart, C.S. Adis

Perceived organizational support: A meta-analytic evaluation of organizational support theory

Journal of Management, 43 (6) (2017), pp. 1854-1884, 10.1177/0149206315575554 ↗

View in Scopus ↗ Google Scholar ↗

Luthans and Jensen, 2002 F. Luthans, S.M. Jensen

Hope: A new positive strength for human resource development

Human Resource Development Review, 1 (3) (2002), pp. 304-322, 10.1177/15344843020130 ↗

View in Scopus ↗ Google Scholar ↗

Luthans and Peterson, 2002 F. Luthans, S.J. Peterson

Employee engagement and manager self-efficacy

The Journal of Management Development, 21 (5) (2002), pp. 376 376-387, 10.1108/02621710210426864 ↗

Google Scholar ↗

Luthans and Youssef-Morgan, 2017 F. Luthans, M. Youssef-Morgan

Psychological capital: An evidence-based positive approach

Annual Review of Organizational Psychology and Organizational Behavior, 4 (17) (2017), pp. 339-366, 10.1146/annurev-orgpsych-032516-113324 ↗

View in Scopus ↗ Google Scholar ↗

MacCallum et al., 1996 R.C. MacCallum, M.W. Browne, HM. Sugawara

Power analysis and determination of sample size for covariance structure modeling

Psychological Methods, 1 (2) (1996), pp. 130-149

https://doi.org/10.1037/1082-989X.1.2.130 ↗

View in Scopus ↗ Google Scholar ↗

Meyer and Allen, 1984 J.P. Meyer, N.J. Allen

Affective Commitment Scale (ACS)

APA PsycTests (1984), 10.1037/t00689-000 ↗

Google Scholar ↗

Meyer and Allen, 1991 J.P. Meyer, N.J. Allen

A three-component conceptualization of organizational commitment

Human Resource Management Review, 1 (1) (1991), pp. 61-89

View PDF View article View in Scopus ↗ Google Scholar ↗

Meyer et al., 2002 J.P. Meyer, D.J. Stanley, L. Hercovitch, L. Topolnytsky

Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences

Journal of Vocational Behavior, 61 (1) (2002), pp. 20-52, 10.1006/jvbe.2001.1842 ↗

View PDF View article View in Scopus ↗ Google Scholar ↗

Mouton, 2023 A. Mouton

Hope and work: From the pandemic to possibility, purpose, and resilience

Current Opinion in Psychology, 49 (2023), Article 101550, 10.1016/j.copsyc.2022.101550 ↗

View PDF View article View in Scopus ↗ Google Scholar ↗

Ong et al., 2006 A.D. Ong, L.M. Edwards, C.S. Bergeman

Hope as a source of resilience in later adulthood

Personality and Individual Differences, 41 (7) (2006), pp. 1263-1273, 10.1016/j.paid.2006.03.028 ↗

View PDF View article View in Scopus ↗ Google Scholar ↗

Ong et al., 2018 A.D. Ong, T. Standiford, S. Deshpande

Hope and stress resilience

M.W. Gallagher, S.J. Lopez (Eds.), The Oxford handbook of hope, Oxford University Press (2018), pp. 255-284, 10.1093/oxfordhb/9780199399314.013.26 ↗

Google Scholar ↗

Passmore et al., 2020 S. Passmore, E. Hemming, H. Chancellor McIntosh, C.M. Hellman

The relationship between hope, meaning in work, secondary traumatic stress, and burnout among child abuse pediatric clinicians

The Permanente Journal, 24 (2020), pp. 29-34, 10.7812/TPP/19.087 ↗

Google Scholar ↗

Peterson and Byron, 2008 S.J. Peterson, K. Byron

Exploring the role of hope in job performance: Results from four studies

Journal of Organizational Behavior, 29 (6) (2008), pp. 785-803, 10.1002/job.492 ↗

View in Scopus ↗ Google Scholar ↗

Pharris et al., 2022 A.B. Pharris, R.T. Muñoz, C.M. Hellman

Hope and resilience as protective factors linked to lower burnout among child welfare workers

Children and Youth Services Review, 136 (2) (2022), pp. 1-9, 10.1016/j.childyouth.2022.106424 ↗

Google Scholar ↗

Rand, 2018 K.L. Rand

Hope, self-efficacy, and optimism: Conceptual and empirical differences

M.W. Gallagher, S.J. Lopez (Eds.), The Oxford handbook of hope, Oxford University Press (2018), pp. 45-58, 10.1093/oxfordhb/9780199399314.013.4 ↗

Google Scholar ↗

Reichard et al., 2013 R.J. Reichard, J.B. Avey, S. Lopez, M. Dollwet

Having the will and finding the way: A review and meta-analysis of hope at work

The Journal of Positive Psychology, 8 (4) (2013), pp. 292-304, 10.1080/17439760.2013.800903 ↗

View in Scopus ↗ Google Scholar ↗

Rhoades and Eisenberger, 2002 L. Rhoades, R. Eisenberger

Perceived organizational support: A review of the literature

Journal of Applied Psychology, 87 (4) (2002), pp. 698-714, 10.1037/0021-9010.87.4.698 ↗

View in Scopus ↗ Google Scholar ↗

Rhoades et al., 2001 L. Rhoades, R. Eisenberger, S. Armeli

Affective commitment to the organization: The contribution of perceived organizational support

Journal of Applied Psychology, 86 (5) (2001), pp. 825-836, 10.1037/0021-9010.86.5.825 ↗

View in Scopus ↗ Google Scholar ↗

Rockstuhl et al., 2020 T. Rockstuhl, R. Eisenberger, L.M. Shore, J.N. Kurtessis, M.T. Ford, L.C. Buffardi, S. Mesdaghinia

Perceived organizational support (POS) across 54 nations: A cross-cultural meta-analysis of POS effects

Journal of International Business Studies, 51 (6) (2020), pp. 933-962, 10.1057/s41267-020-00311-3 ↗

View in Scopus ↗ Google Scholar ↗

Sciepura and Linos, 2022 B. Sciepura, E. Linos

When perceptions of public service harms the public servant: Predictors of burnout and compassion fatigue in government

Review of public personnel administation (2022), 10.1177/0734371X221081508 ↗

(online first April 25, 2022)

Google Scholar ↗

Shore and Tetrick, 1991 L.M. Shore, L.E. Tetrick

A construct validity study of the survey of perceived organizational support

Journal of Applied Psychology, 76 (5) (1991), pp. 637-643, 10.1037/0021-9010.76.5.637 ↗

View in Scopus ↗ Google Scholar ↗

Shorey et al., 2002 H.S. Shorey, C.R. Snyder, K.L. Rand, J.R. Hockemeyer, D.B. Feldman

Somewhere over the rainbow: Hope theory weathers its first decade

Psychological Inquiry, 13 (4) (2002), pp. 322-331, 10.1207/S15327965PLI1304_03 ↗

View in Scopus ↗ Google Scholar ↗

Snyder, 2002 C.R. Snyder

Hope theory: Rainbows in the mind

Psychological Inquiry, 13 (4) (2002), pp. 249-275, 10.1207/S15437965PLI1304_01 ↗

View in Scopus ↗ Google Scholar ↗

Snyder et al., 1997 C.R. Snyder, J. Cheavens, S.C. Sympson

Hope: An individual motive for social commerce

Group Dynamics: Theory, Research, and Practice, 1 (2) (1997), pp. 107-118, 10.1037/1089-2699.1.2.107 ↗

View in Scopus ↗ Google Scholar ↗

Snyder et al., 1991 C.R. Snyder, C. Harris, J.R. Anderson, S.A. Holleran, L.M. Irving, S.T. Sigmon

The will and the ways: Development and validation of an individual differences measure of hope

Journal of Personality and Social Psychology, 60 (4) (1991), pp. 570-585, 10.1037/0022-3514.60.4.570 ↗

View in Scopus ↗ Google Scholar ↗

Snyder and Lopez, 2002 C.R. Snyder, S.J. Lopez

Handbook of positive psychology

Oxford University Press (2002)

Google Scholar ↗

Snyder et al., 2018 C.R. Snyder, K.L. Rand, D.R. Sigmon

Hope theory: A member of the positive psychology family

M. Gallagher, S. Lopez (Eds.), The oxford handbook of hope, Oxford University Press (2018), pp. 27-41

Crossref ↗ Google Scholar ↗

Snyder et al., 2001 C.R. Snyder, S.C. Sympson, S.T. Michael, J. Cheavens

Optimism and hope constructs: Variants on a positive expectancy theme

E.C. Chang (Ed.), Optimism and pessimism: Implications for theory, research, and practice, American Psychological Association (2001), pp. 101-125, 10.1037/10385-005 ↗

Google Scholar ↗

Youssef and Luthans, 2007 C.M. Youssef, F. Luthans

Positive organizational behavior in the workplace: The impact of hope, optimism, and resilience

Journal of Management, 33 (5) (2007), pp. 774-800, 10.1177/0149206307305562 ↗

View in Scopus ↗ Google Scholar ↗

Cited by (0)