

Oxford Handbooks Online

Hope and Stress Resilience

Anthony D. Ong, Taylor Standiford, and Saarang Deshpande

The Oxford Handbook of Hope

Edited by Matthew W. Gallagher and Shane J. Lopez

Print Publication Date: Feb 2018 Subject: Psychology, Social Psychology, Clinical Psychology

Online Publication Date: Nov 2017 DOI: 10.1093/oxfordhb/9780199399314.013.26

Abstract and Keywords

A sizeable literature has implicated hopelessness in the phenomenological experience of various mood disorders, vulnerability to psychopathology, and overall poor psychological functioning. By contrast, how hope contributes to resilience and well-being has been understudied. This systematic review integrates findings from cross-sectional, longitudinal, ambulatory, and experimental studies that investigate the impact of hope and well-being outcomes in both healthy and clinical populations. Although the literature is not without theoretical gaps and methodological inconsistencies, the pattern of findings suggests that aggregate or trait measures of hope provide the most consistent evidence of a direct association between hope and well-being in healthy and clinical populations. More limited empirical data exists on the protective effects of hope. The chapter concludes that more rigorous and theoretically informed research is needed before firm conclusions can be drawn about the possible beneficial impact of hope on well-being.

Keywords: hope, health, resilience, well-being, protective effects, trait measures

Few things more poignantly reveal our remarkable capacity for resilience as our ability to sustain hope in the face of vulnerability, pain, and loss. As defined by Snyder, Irving, and Anderson (1991), "Hope is a positive motivational state that is based on an interactively derived sense of successful *agency* (goal-directed energy) and *pathways* (planning to meet goals)" (p. 287). Considerable empirical research suggests that hope is directly related to adjustment and well-being (Alarcon, Bowling, & Khazon, 2013; Gallagher & Lopez, 2009; Snyder, 2002). Robust associations between hope and measures of psychological health have been documented across a wide variety of contexts, both in within-person (Snyder et al., 1996) and between-person analyses (Snyder, Harris et al., 1991). Moreover, the robustness of these associations has been demonstrated in both clinical and nonclinical

Hope and Stress Resilience

samples of children and adolescents, as well as adults (for a review, see Edwards, Rand, Lopez, & Snyder, 2006).

Based on Snyder's (1994) hope theory, hope is comprised of two relatively distinct ways of appraising or thinking about goals. *Pathways* thinking relates to the perceived ability to generate routes toward desired goals and is necessary to attain goals and navigate around obstacles. *Agency*, or willpower, is considered the mental determination and energy necessary to begin and sustain movement toward goals. Pathways and agency are positively related but describe distinct aspects, each of which is not sufficient to define hope (Chang & DeSimone, 2001; Snyder, 2002). Additionally, hope has been theoretically distinguished from constructs such as optimism (Scheier & Carver, 1985) and self-efficacy (Bandura, 1982). Unlike optimism, which focuses on the agency-like, generalized expectancies that one will experience good outcomes in the future, hope theory gives equal emphasis to pathways as well (Snyder, 2000). Similarly, self-efficacy theory primarily reflects an individual's perceived capacity to engage in actions that will provide movement (p. 256) toward specific goals (similar to agency thoughts) but focuses less on pathways thinking. Research by Magaletta and Oliver (1999) has demonstrated that hope produces unique variance independent of optimism and self-efficacy in the prediction of well-being.

Theoretical Perspectives on Resilience

Resilience has numerous meanings in prior research but generally refers to a pattern of functioning indicative of *positive adaptation* in the context of significant *risk* or adversity. Underlying this notion are two fundamental conditions: (a) exposure to significant risks and (b) evidence of positive adaptation despite serious threats to development. In early investigations of childhood resilience (e.g., Garmezy, Masten, & Tellegen, 1984; Rutter, 1987; Werner & Smith, 1982), risk factors were defined as discrete experiences (e.g., parental psychopathology, community violence) that carried high odds for maladjustment. In subsequent work (e.g., Luthar, 1999; Luthar & Cushing, 1999; Masten & O'Connor, 1989; Masten & Wright, 1998; Sameroff, Gutman, & Peck, 2003), the concept of risk was broadened to include cumulative risk indices (e.g., tallies of adverse life events over time), acute trauma and chronic life difficulties (e.g., sexual abuse, neighborhood disorganization), and factors that statistically predicted later maladjustment in the general population (e.g., low birth weight).

Positive adaptation, the second core component of resilience, represents adaptation that is substantially better than would be expected given exposure to significant risk. Although indicators of positive adaptation have varied across contexts, populations, and risk factors under study (for a review, see Luthar, 2006), extant conceptualizations have, in general, included three kinds of phenomena: good developmental outcomes despite high risk, sustained competence under stress, and recovery from trauma (Masten, Best, & Garmezy, 1990). Under each of these conditions, researchers have focused their attention on identifying *protective factors* that served to modify the adverse effects of risks in a positive direction. On the basis of early reviews of the childhood and adolescence literature, Garmezy (1985) described three major categories of protective factors: *individual attributes* (e.g., an engaging “easy” temperament and good self-regulation skills), *relationships* (e.g., parental qualities with high trust, warmth, cohesion, and close relationships with competent adults), and *external support systems* (e.g., quality neighborhoods and schools and connections to prosocial organizations). These set of protective factors have been remarkably reliable in predicting positive psychological functioning following adversity (Garmezy, 1987; Masten & Coatsworth, 1998; Rutter, 1987; Werner & Smith, 1992). The consistent support for these assets and resources led Masten (2001) to conclude that resilience emerges not from rare or extraordinary qualities and circumstances but from “the everyday magic of ordinary, normative human resources in the minds, brains, and bodies of children, in their families and relationships, and in their communities” (p. 201).

At the other end of the life course is the growing literature on *optimal aging* (Baltes & Baltes, 1990; Rowe & Kahn, 1987; Schulz & Heckhausen, 1996) that has delineated distinct patterns of developmental plasticity (i.e., changes in adaptive capacity) across multiple life domains. This work underscores distinctions between resilience as *recovery* from the negative consequences of adversity and resilience as *maintenance of*

Hope and Stress Resilience

development in the face of cumulative risks (for a review, see Staudinger, Marsiske, & Baltes, 1995). Other research has conceptualized resilience as distinct from the process of recovery (Bonanno, 2004). This perspective derives from studies demonstrating that resilience and recovery are distinct outcome trajectories that are empirically separable following highly aversive events such as interpersonal loss (e.g., Bonanno et al., 2002) and psychological trauma (e.g., Bonanno, Galea, Bucciarelli, & Vlahov, 2006). Finally, several lines of adulthood research emphasize the need to assess positive outcomes (e.g., psychological well-being, developmental growth) in response to challenge (Ryff & Singer, 2003; Ryff, Singer, Love, & Essex, 1998; Staudinger, Marsiske, & Baltes, 1993; Staudinger et al., 1995). Studies within this tradition have elaborated how age-graded influences (e.g., Baltes, 1987; Ryff & Heidrich, 1997), normative transitions (e.g., Smider, Essex, & Ryff, 1996), nonnormative events (e.g., Baltes, Reese, & Lipsitt, 1980; Tweed & Ryff, 1991), and chronic life difficulties (e.g., Baltes & Baltes, 1990; Singer & Ryff, 1999) are linked to various aspects of adult mental and physical health.

Recent reviews of the burgeoning research on child and adulthood resilience (Bonanno, 2005; Luthar & Brown, 2007; Ryff & Singer, 2003) reveal notable parallels as well as salient differences. Although an exhaustive review of the major differences and similarities across these two literatures is beyond the scope of this chapter, we briefly highlight convergent themes and guiding principles that (p. 257) shore up idiosyncratic viewpoints and approaches evident in prior work. From the perspective of risk avoidance, it is noteworthy that extant studies of resilience have given limited empirical attention to the exact nature of the stressors and challenges confronting resilient children and adults. As Ryff and colleagues (1998) note, in many instances, risk factors are inferred from aversive or otherwise unfavorable contexts (e.g., poverty, parental psychopathology, widowhood) rather than empirically assessed. Within the developmental and adult literatures, most researchers additionally agree that it is important to consider adaptive functioning more broadly beyond just the avoidance of psychopathology or negative developmental outcomes (Masten et al., 1990; Ryff & Singer, 2003). Luthar and colleagues (Luthar, Cicchetti, & Becker, 2000; Luthar & Zelazo, 2003), for example, underscore the importance of considering the role of biological factors in resilience.

Both child and adult literatures (Bonanno, 2004; Luthar & Brown, 2007; Masten, 2001; Ryff & Singer, 2000) emphasize the need to assess the relative contribution of personality assets (e.g., ego resilience, positive self-concepts, hardiness) and environmental resources (e.g., access to supportive relationships, close and nurturing family bonds, quality relationships within the community) in response to challenge. Finally, understanding of specific mechanisms that underlie resilience is a central interest in both child and adulthood literatures (Luthar et al., 2000; Rutter, 2000; Ryff & Singer, 2003; Ryff et al., 1998). That is, rather than simply studying which individual assets and social resources are associated with positive adaptation, there is growing awareness of the need to consider *how* such factors contribute to resilience in the face of challenge.

Hope as a Source of Resilience

Although considerable research has documented the effects of hope on well-being, no systematic review has yet investigated the role of hope as a promotive factor, increasing the likelihood of adaptive well-being and health, or as a protective factor, decreasing vulnerability in the face of risk. Thus the aim of this chapter is to review systematically the literature on hope as a source of stress resilience for mental and physical health. We use systematic methods and standardized procedures (Moher, Liberati, Tetzlaff, & Altman, 2009; Project EPHP, 2009) for locating and evaluating the relevance and quality of cross-sectional, longitudinal, ambulatory, and experimental studies. It is a comprehensive review that includes investigations of hope and stress that may impact on health and well-being outcomes that lie on a continuum ranging from restorative to deteriorative processes. In addition to considering the direct contribution of hope to multiple well-being outcomes, including mental health, behavioral indicators, interpersonal functioning, and physical health, we review evidence regarding potential stress-buffering or protective effects of hope. We also discuss the role of underlying pathways in the association between hope and well-being. Last, we highlight important methodological limitations of extant studies and suggest directions for future research.

Methodological Approach

Database Sources and Study Screening

The review was conducted using guidelines from PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses; Moher et al., 2009). A comprehensive search for all available research on the topic was performed in three electronic bibliographic databases (MEDLINE in PubMed, PsycINFO, CINAHL). Additional studies were identified through cited reference searching of included articles and known reviews. Study screening was carried out by two independent reviewers. Discrepancies were resolved by consensus. In a first step, screening was carried out to exclude articles that did not meet inclusion criteria based on the title and abstract. Full-text screening was performed on potentially relevant studies that were identified to meet inclusion criteria. To be included, a study had to (a) be a published empirical study (rather a meta-analysis or theoretical review); (b) involve human subjects; (c) include, as an independent variable, a measure of hope or a hope manipulation or intervention; and (d) include, as a dependent variable, a subjective or objective measure of mental or physical health. Studies were excluded if they (a) used a single-case research design (e.g., clinical case study), (b) assessed only the contemporaneous correlation between hope or well-being, (c) examined only the

Hope and Stress Resilience

effect of well-being on hope (rather than the effect of hope on well-being), or (d) used a reversed indicator of hopelessness as a measure of hope (e.g., pessimism, depression, negative affect, hostility).

Data Extraction and Quality Assessment

In this review, we assessed the methodological quality of reported research using the Effective Public Health Practice Project (EPHPP) tool (p. 258) (Project EPHP, 2009). The EPHPP is a tool for assessing quality and susceptibility to bias in observational studies and a variety of intervention-based study designs such as randomized controlled trials, pre-post, and case-control studies. The tool assesses six domains: (a) selection bias, (b) study design, (c) confounders, (d) blinding, (e) data collection, and (f) withdrawals/dropouts. The EPHPP assessment tool has been judged suitable for systematic reviews (Deeks et al., 2003) and has been reported to have content and construct validity (Jackson & Waters, 2005; Thomas, Ciliska, Dobbins, & Micucci, 2004). In this review, we developed a standardized data extraction protocol (available upon request) that included information about the publication, study design, participants, measures, and outcomes. We used an adapted form that excluded questions related to withdrawal/dropouts for the assessment of cross-sectional studies. Each domain was rated as strong, moderate, or weak, and domain scores were averaged to provide a global rating for each study.

Characteristics of Included Studies

Ninety-nine articles fulfilled the inclusion criteria and were included for review. The 99 studies recruited a total of 19,390 respondents. The average age of participants in each study ranged from 20 to 51 years old. The majority of included studies were cross-sectional (70.7%), followed by longitudinal studies (22.2%). In addition, we retrieved five ambulatory studies and two experimental studies. Two-thirds of the studies used US samples (66.7%), with the majority of the remainder coming from Canada, Israel, the United Kingdom, and Hong Kong. Table 21.1 summarizes the general characteristics of included studies. Cross-sectional studies examine the extent to which hope is associated with health and well-being outcomes. Longitudinal studies explore whether previous levels of hope predict subsequent levels of well-being across more extended periods of time. Ambulatory studies, in comparison, use intensive repeated measures methodology (e.g., experience sampling) across several days or weeks to examine how within-person variation in hope relates to well-being. Finally, experimental studies determine the effects of induced transient hope on concurrent well-being outcomes.

Quality Assessment and Strength of Evidence

Hope and Stress Resilience

The assessment of the quality of the study methodology for the five domains (selection bias, study design, confounders, blinding, and data collection) is shown in Figure 21.1. Following the EPHPP tool, we categorized the majority of included studies (51.5%) as “weak,” 34 studies (34.3%) as “moderate,” and 14 studies (14.1%) as “strong.” Weakness ratings were derived from the inadequate control of confounders and insufficient information regarding study design, as well as blinding. Among the 61 studies measuring mental health outcomes (e.g., life satisfaction, negative/positive affect, depression/anxiety, posttraumatic stress disorder [PTSD]), 25 were categorized as moderate quality, 27 showed weak quality, and 9 were rated as strong. For studies assessing behavior indicators (e.g., externalizing behaviors, academic achievement, suicide), 15 studies (65.2%) were rated as weak, 4 studies (17.4%) were categorized as moderate, and 4 studies (17.4%) were rated as strong. Among nine studies measuring interpersonal functioning (e.g., perceived social support, family processes, marital satisfaction) four studies (44.4%) were rated as weak, four studies (44.4%) were categorized as moderate, and one study (11.1%) was rated as strong. Finally, among the remaining nine studies that assessed physical health (e.g., illness symptoms, pain tolerance), six studies (66.7%) were rated as weak and three studies (33.3%) were rated as moderate.

Mental Health and Other Measures of Well-Being

Table 21.2 presents studies that address the potential impact of hope on multiple aspects of mental health and well-being, including life satisfaction, affective states, anxiety and depression symptoms, and PTSD and growth. Outcomes related to mental health were nearly all self-report. The majority of studies conceptualized hope as a trait (i.e., stable, enduring disposition). Most of the studies assessed trait hope using single-administration, paper-and-pencil questionnaires; however, two studies (Ong, Edwards, & Bergeman, 2006; Steffen & Smith, 2013) assessed trait hope using ecological momentary assessment approaches (measured by aggregating momentary assessment ratings over the day). The majority of mental health studies were cross-sectional (72.6%), followed by longitudinal (24.2%) and ambulatory (3.2%). Among the studies reviewed, 59 were consistent with theoretical predictions, and 2 reported null findings (i.e., Dew-Reeves, Athay, & Kelley, 2012; Wright et al., 2011). Among studies measuring both depression and anxiety, 9 were consistent with theoretical predictions for both outcome measures, 16 found hope as a predictor of reduced depression only, 1 found hope as a predictor (p. 259) (p. 260) (p. 261) (p. 262) of reduced anxiety only (i.e., Mednick et al., 2007), and 2 reported null findings on anxiety (i.e., Lloyd & Hastings, 2009; Rajandram et al., 2011). Overall, findings suggest that higher levels of trait and state hope are uniquely promotive of better well-being in both healthy and patient populations. Moreover, 18 studies found evidence that hope is protective against a range of stressors, including anxiety, depression, PTSD, negative affect, and physical illness.

Hope and Stress Resilience

Table 21.1. Characteristics of Included Studies

First Author	Year	Region	Sample Size	Age Range (years)	Study Design
Ai	2007	USA	309	33-89	Longitudinal
Ai	2005	USA	457	M = 29.06	Cross-sectional
Arnau	2007	USA	522	M = 18.7	Longitudinal
Banks	2008	USA	318	M = 20	Cross-sectional
Barnum	1998	USA	15 survivors, 14 control	13-19	Cross-sectional
Berendes	2010	USA	51	M = 65	Cross-sectional
Berg	2008	USA	172	M = 19.17	Experimental
Berg	2007	USA	48	M = 9.4	Ambulatory
Besser	2014	Israel	140	M = 25.21	Cross-sectional
Besser	2012	Isreal	217	20-30	Longitudinal
Billington	2008	UK	103	28-83	Cross-sectional

Hope and Stress Resilience

Bluvol	2004	Canada	47 (families)	46-48 (survivor)	Cross-sectional
Cedeno	2010	USA	132	M = 10.20	Cross-sectional
Chang	2015	USA	325	17-58	Cross-sectional
Chang	2013	USA	160	18-46	Cross-sectional
Davidson	2013	USA	62	18-69	Cross-sectional
Davidson	2010	USA	115	18-31	Cross-sectional
Dew-Reeves	2012	USA	117	11-18	Longitudinal
Elliott	1991	USA	57	18-83	Cross-sectional
Evangelista	2003	USA	50	18-78	Cross-sectional
Farone	2007	USA	109	M = 74.87	Cross-sectional
Feldman	2013	USA	391	M = 41.51 for Asians, 51.91 for Latinos	Longitudinal
Fite	2014	USA	141	14-20	Cross-sectional

Hope and Stress Resilience

Geffken	2006	USA	67	28-78	Cross-sectional
Gilman	2006	USA	341	M = 14.58	Cross-sectional
Glass	2009	USA	228	18-79	Cross-sectional
Gustafsson	2013	Sweden	238	15-19	Cross-sectional
Gustafsson	2010	Sweden	178	15-20	Cross-sectional
Hackbarth	2012	USA	452	20-80	Cross-sectional
Hagen	2005	USA	65	6-12	Cross-sectional
Hartley	2008	USA	62	35-84	Longitudinal
Hassija	2012	USA	209	M = 52.4	Cross-sectional
Hasson-Ohayon	2009	Isreal	60	M = 42.57	Cross-sectional
Hayashino	2012	Japan	836	28-81	Cross-sectional
Hernandez	2013	USA	54 families	M = 35 for patients, 54 for family members	Cross-sectional

Hope and Stress Resilience

Hirsch	2011	USA	105	M = 74.24	Cross-sectional
Ho	2011	Hong Kong	50	M = 60	Cross-sectional
Ho	2010	China	76	21-66	Longitudinal
Horton	2001	USA	111	M = 36	Cross-sectional
Howell	2015	Canada	24	20-70	Longitudinal
Irving	1998	USA	115	Intro psych students	Cross-sectional
Irving	1997	USA	72	M = 43.9	Ambulatory
Jackson	1998	USA	63	31-82	Cross-sectional
Jiang	2013	USA	565	6th-8th grade	Cross-sectional
Kashdan	2002	USA	252	M = 35.6	Cross-sectional
Kasler	2008	Israel	311	9-11	Cross-sectional
Kennedy	2009	UK	54	16-83	Cross-sectional
Kortte	2012	USA	174	M = 57.58	Longitudinal

Hope and Stress Resilience

Kortte	2010	USA	87	18-85	Longitudinal
Krause	2014	USA	208	M = 36 at onset	Cross-sectional
Kwon	2010	USA	65	19-62	Longitudinal
Landeen	2000	Canada	100	19-47	Cross-sectional
Lee	2001	South Korea	122	27-63	Cross-sectional
Lloyd	2009	Canada	50	13-17	Cross-sectional
Lloyd	2009	UK	196	23-57 for mothers, 23-54 for fathers	Cross-sectional
Lu	2013	Taiwan	224	M = 20.02	Cross-sectional
Martin	2010	Canada	100	M = 33.3	Cross-sectional
Mathew	2014	Australia	171	18-54	Cross-sectional
Mednick	2007	USA	75	M = 35.3	Cross-sectional
Michael	2005	USA	158	18-37	Cross-sectional
Ng	2014	Hong Kong	150	7-12	Cross-sectional

Hope and Stress Resilience

O'Keefe	2013	USA	168	18-62	Cross-sectional
Ong	2006	USA	226	62-80	Ambulatory
Padilla-Walker	2011	USA	489	9-14	Cross-sectional
Parenteau	2006	USA	22	M = 37.41	Longitudinal
Rajandram	2011	Hong Kong	50	M = 60	Cross-sectional
Rawdin	2013	USA	78	M = 57.6	Cross-sectional
Reff	2005	USA	396	17-46	Longitudinal
Richman	2005	USA	1041	55-70	Longitudinal
Rock	2014	USA	56	M = 52.16 for patients, 52.74 for spouses	Cross-sectional
Roesch	2010	USA	126	14-18	Ambulatory
Rustoen	2010	USA	194	25-80	Longitudinal
Santos	2015	Brazil	113	11-23	Cross-sectional

Hope and Stress Resilience

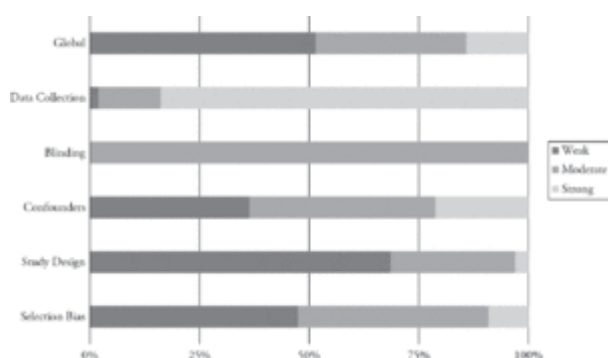
Savahl	2013	South Africa	566	14-17	Cross-sectional
Schwartz	2007	Israel	82	38-81	Cross-sectional
Scioli	2012	USA	16	35-61	Longitudinal
Shiri	2012	Israel	101	M = 55.1	Cross-sectional
Shorey	2003	USA	197	18-30	Cross-sectional
Sjoquist	2013	Australia/Canada	126	30-89	Longitudinal
Smedema	2014	USA	187	20-71	Cross-sectional
Snyder	2005	USA	701	M = 29	Experimental
Snyder	2002	USA	213	18-21	Longitudinal
Steffen	2013	USA	84	M = 39.42	Ambulatory
Stoddard	2011	USA	164	M = 12	Cross-sectional
Strom	2007	USA	94	18-74	Cross-sectional
Sun	2014	China	517	19-23	Cross-sectional

Hope and Stress Resilience

Thio	2005	New Zealand	98	17-43	Cross-sectional
Truitt	2012	USA	546	21-84	Cross-sectional
Unwin	2009	UK	99	19-91	Longitudinal
Valle	2006	USA	860	10-18	Longitudinal
Van Allen	2012	USA	67	M = 11.74	Longitudinal
Visser	2013	USA	386	18-46	Cross-sectional
Wheeler	2008	USA	101	20-49	Cross-sectional
Woods	2013	USA	102	8-19	Longitudinal
Wright	2011	USA	89	M = 53.62	Cross-sectional
Wroblewski	2005	USA	100	M = 75.9	Cross-sectional
Wu	2011	Taiwan	175	18-85	Cross-sectional
Yuen	2014	Hong Kong	89	17.2-31.3	Cross-sectional
Zhang	2014	China	138	M = 13.5	Cross-sectional

Behavioral Outcomes

Evidence linking hope to behavioral outcomes has been reported in 23 studies. Among the studies reviewed, six studies (26.1%) focused on internalizing/externalizing behaviors; four studies (17.4%) focused on suicide; six studies (26.1%) investigated coping strategies; three studies (13.0%) examined academic achievement and athletic achievement, and four studies (17.4%) focused on health behaviors (see Table 21.3). Like studies examining the mental health correlates of hope, the behavioral studies reviewed were largely cross-sectional (65.2%) and assessed hope and behavioral outcomes via self-report, which may inflate the strength of the association by shared methods. Among the studies considering an association between hope and behavioral processes, 22 were consistent with theoretical predictions, and 1 (p. 263) (p. 264) (p. 265) (p. 266) (p. 267) (p. 268) (p. 269) (p. 270) (p. 271) reported null findings (i.e., Davidson & Wingate, 2013). Moreover, longitudinal studies hint that hope may have long-term implications for healthy behaviors, but additional research directly assessing the effect of hope on behavioral health is needed to determine whether hope-based interventions can alter behavioral outcomes. Specifically, only two studies found hope to be a moderator (i.e., Cedeno, Elias, Kelly, & Chu, 2010; Fite et al., 2014) while the remaining studies did not directly test for moderating effects.



[Click to view larger](#)

Fig. 21.1. Summary of quality assessment results from the Effective Public Health Practice Project (EPHPP) tool.

Hope and Stress Resilience

Table 21.2. Summary of Hope and Mental Health Findings in Healthy and Clinical Populations					
Study	Hope Measure	Outcome Measure	Stress Measure	Comparison Group	Findings
<i>Life satisfaction</i>					
Smedema et al. (2014)	HS (8-item)	SWLS (5-item)	CSE (12-item)	None	Core self-evaluations had a positive relationship with life satisfaction. Agency and pathways thinking both mediate the relationship between CSE and life satisfaction.
Krause and Edles (2014)	Hope for Recovery (2-item)	SWLS (5-item)	None	None	Hope for recovery predicted higher life satisfaction.
Ng et al. (2014)	CHS (6-item)	SLSS (7-item)	None	None	Hopeful thinking was associated with increased life satisfaction.

Hope and Stress Resilience

Valle et al. (2006)	CHS (6-item)	LSIA (20-item)	LEC (46-item)	None	Stressful life events had a negative relationship with life satisfaction. The interaction between initial hope and stressful life events at T1 was predictive of higher life satisfaction scores at T2. Hopeful thinking buffered against the adverse effects of stressful life events. Hope at T1 and T2 positively predicts life satisfaction at T2.
Wroblewski and Snyder (2005)	HS (12-item)	SLSS (7-item)	None	None	Higher hope scores were associated with

Hope and Stress Resilience

					greater life satisfaction.
Gilman & Dooley (2006)	CHS (6-item)	SWLS (5-item)	None	None	High hope scores were associated with higher global life satisfaction.
Zhang et al. (2014)	CHS (4-item)	BMSLSS (6-item)	Perceived group based discrimination	None	Discrimination negatively predicted life satisfaction. Hope positively predicted life satisfaction. Hopeful thinking did not protect against participants' life satisfaction from the negative impact of discrimination, but it mediated the negative effect of discrimination on life satisfaction.

Hope and Stress Resilience

Jiang et al. (2013)	CHS (6-item)	SWLS (5-item)	IPPA (75-item)	None	Both parent attachment as well as hope were positively predictive of life satisfaction. Hope partially mediated the relationship between parent attachment and life satisfaction.
Strom and Kosciulek (2007)	HS (12-item)	SWLS (5-item)	PSS (10-item)	None	Perceived stress positively predicted self-reported depression. Dispositional hope was predictive of increased life satisfaction.
Kwon and Hugelshofer (2010)	ATHS (8-item)	SWLS (5-item) and PANAS (8-item; Chinese)	LGBTCI (20-item)	None	Hope was positively predictive of T2 life satisfaction. LGBTCI was not predictive of life

Hope and Stress Resilience

					satisfaction. Agency but not pathways served as a buffer against low workplace support climates in predicting life satisfaction.
<i>Subjective Well-Being</i>					
Lu and Hsu (2013)	HS (12-item)	SWLS (5-item) and PANAS (8-item; Chinese)	Injury Severity (1-item)	None	Higher hope was predictive of greater subjective well-being. Injury severity and social support were not predictive of subjective well-being. The interaction of pathways and social support was predictive of subjective well-being. Hope buffers against low social support in

Hope and Stress Resilience

					predicting subjective well-being.
Michael and Snyder (2005)	HS (12-item)	CES-D, (20-item), STAI (20-item), PANAS (20-item)	None	None	Hope negatively predicted depression, state anxiety, and negative affect (from PANAS) and positively predicted positive affect (from PANAS).
Savahl et al. (2013)	CHS (6-items)	KIDSCREEN-52 (52-item)	REVS (26-item)	None	Hope was a positive predictor of child well-being. Exposure to community violence was a negative predictor. Hope emerged as a stronger predictor of child well-being than exposure to community

Hope and Stress Resilience

					violence. No moderation was calculated.
Farone et al. (2007)	HS (12-item)	CES-D (20-item)	None	None	Higher hope was associated with more favorable outcomes of health and well-being. The association was less strong with respect to protection against somatic symptoms.
Kortte et al. (2010)	ATHS (12-item)	PANAS (20-item), SWLS (5-item), BSI (53-item)	None	None	Hope positively predicted baseline life satisfaction. Initial hope was not predictive of life satisfaction at 3-month follow up.
<i>Quality of Life</i>					
Billington et al. (2008)	HS (12-item)	KDQOL (36-item)	None	None	High trait hope positively

Hope and Stress Resilience

					predicted mental health quality of life.
Evangelista et al. (2003)	HHI (12-item)	SF-12 (12-item)	None	None	Hope was a positive predictor of quality of life.
Shiri et al. (2012)	HS (12-item)	SF-36 (36-item)	Employment status in PPS and control	Age-matched subjects	Hope positively predicted total quality of life and mental health quality of life. Employment positively predicted total quality of life and physical health quality of life. The interaction of hope and employment status positively predicted both types of quality of life.

Hope and Stress Resilience

Woods et al. (2013)	CHS (6-item)	PedsQL (23-item)	None	None	Post-camp levels of agency-related hope were positively associated with post-camp health-related quality of life.
Bluvol & Ford-Gilboe (2004)	HHI (12-item)	RNLI (11-item)	None	None	Hope positively predicts quality of life.
Wheeler et al. (2008)	SHS (6-item), ATHS (12-item)	QOLI (32-item)	Parental Stress Index (36-item)	None	Trait hope positively and parenting stress negatively predicted quality of life.
Hasson-Ohayon et al. (2009)	HS (12 item)	W-QLI (58-item)	SAI-E (11-item; Hebrew)	None	Hope mediated the relationship between insight into illness and quality of life. Hope positively predicted occupational

Hope and Stress Resilience

					activities, physical health, social relations, daily living activities, and psychiatric symptoms. The awareness dimension of insight into mental illness negatively predicted the same categories. Hope mediated the effect of awareness on physical health, social relations, and activity of daily living.
<i>Negative/Positive Affect</i>					
Ong et al. (2006)	SHS (6-item), ATHS (8-item)	PANAS (negative; 10-item)	Daily Stress	None	Higher daily hope was associated with lower negative affect. Additionally, daily hope served to

Hope and Stress Resilience

					moderate stress reactivity and mediate stress recovery.
Unwin et al. (2009)	HS (12-item)	PANAS (20-item) TAPES (15-item)	TAPES (5-item)	None	Hope at the beginning of rehabilitation positively predicted positive mood. Phantom intensity (TAPES) did not predict positive mood.
Steffen & Smith (2013)	SHS (6-item)	PANAS-X (60-item)	Daily Stress (1-item)	None	Within-person stress negatively predicted positive affect. Between-person hope positively predicted daily positive affect. The interaction of within-person hope and stress did not predict positive affect.

Hope and Stress Resilience

					When under high stress, more problem-focused coping predicted higher positive affect if the participant was high in hope.
<i>Perceived Stress/ General Distress</i> Horton & Wallander (2001)	HS (12-item)	BSI (53-item)	Parents of Children With Disability Inventory (40-item)	None	Higher hope was predictive of decreased maternal distress. Hope moderated the effect of disability-related stress on distress.
Glass et al. (2009)	SHS (6-item)	BSI (53-item)	IES-R (22-item)	None	Hope negatively predicted PTSD symptoms and general psychological distress. Avoidant coping positively predicted PTSD symptoms and general

Hope and Stress Resilience

					psychological distress. Hope moderated the relation between avoidant coping and general psychological distress.
Wright et al. (2011)	ADHS (12 item)	BSI-18 (18-item)	PDI (7-item)	None	Hope was not found to be a significant independent predictor of psychological distress.
Rustoen et al. (2011)	HHI (12-item)	IES (15-item)	None	None	Levels of hope increased and levels of psychological distress decreased immediately following hope-based intervention.

Hope and Stress Resilience

Besser and Zeigler-Hill (2014)	HS (12-item)	PSS (14-item)	SDS (3-item)	None	Hope at T1 was negatively associated with perceived stress and T2 and T3, but hope had a stronger effect on perceived stress at T2. Hope had protective effects on psychological distress, functional impairment, and self-esteem for participants.
<i>Depression/Anxiety</i>					
Ho et al. (2010)	HS (12-item)	HADS (14-item)	None	None	Hope negatively predicted trajectory for depression and anxiety. Hope was a positive, independent predictor of

Hope and Stress Resilience

					resilience against depression and anxiety.
Lloyd and Hastings (2009)	HS (12-item)	HADS (14-item)	TRS (60-item)	None	Hope agency and pathways both negatively predicted depression in mothers. Hope agency negatively predicted depression and anxiety. Hope did not significantly predict anxiety.
Arnau et al. (2007)	SHS (12-item)	BDI-II (21-item) CES-D (20-item) DASS (42-item)	Initial BDI-II (21-item) CES-D (20-item) DASS (42-item)	None	Hope agency was negatively associated with later depression and anxiety.
Billington et al. (2008)	HS (12-item)	HADS (14-item)	None	None	Hope was negatively predictive of anxiety and

Hope and Stress Resilience

					depression symptoms.
Mednick et al. (2007)	HS (8-item)	STAI (40-item)	None	None	Hope negatively predicted trait anxiety.
Parenteau et al. (2006)	SHS (6-item)	STAI (20-item) BDI-II (21-item)	SF-36 (36-item)	None	Hope was negatively associated with depressive symptoms and anxiety at baseline at 3- and 6-month follow-up post-surgery.
Santos et al. (2015)	HHI (12-item)	HADS (14-item)	None	None	Hope negatively predicted HbA1c (indicating better glycemic control) and depression.
Visser et al. (2013)	HS (12-item)	BDI-II (21-item) LES (43-item)	LES (43-item)	None	Hope was negatively associated with depressive symptoms.

Hope and Stress Resilience

					Negative life events were positively associated with depressive symptoms. Higher hope moderated the relationship between negative life events and depressive symptoms.
Sun et al. (2014)	HS (12-item)	SDS (20-item)	RRS (22-item)	None	Hope positively and rumination negatively predicted depression. Hope significantly moderated the effects of rumination on depression.
Thio and Elliott (2005)	SHS (6-item)	EPDS (10-item)	None	None	Hope negatively predicted depression. Higher levels of hope was

Hope and Stress Resilience

					uniquely associated with lower postpartum depression.
Hayashino et al. (2012)	HHI (12-item; Japanese)	WHO-5 (5-item)	Self-Perceived Medical Errors	None	Higher hope was negatively associated with physicians' distress. Hope worked as an effect modifier of the known associations between physicians' distress and self-perceived medical errors.
Ai et al. (2007)	HS (12-item)	CES-D (20-item), STAI (20-item)	CES-D (20-item)	None	Both agency and pathways were negatively associated with both preoperative and postoperative depression and anxiety. Hope

Hope and Stress Resilience

					mediated the favorable roles of positive religious coping style, which contributed to lower psychological distress.
Hartley et al. (2008)	HS (12-item)	CES-D (20-item)	None	None	High hope negatively predicted presurgery depression but not depression or functional ability after surgery.
Elliott et al. (1991)	HS (12-item)	IDD (22-item)	Time since injury	None	Pathways was negatively associated with depression. Agency moderated the effect of time since injury on mean impairment score in the early months and

Hope and Stress Resilience

					gradually faded. Pathways moderated the effect of time since injury onset on mean impairment score.
Fite et al. (2014)	CHS (6-items)	Affective Symptoms DSM-Oriented Scale (11-item)	Perceived Behavioral Norms Questionnaire (6-item), Engagement in Delinquency (14-item), Substance Use (3-item)	None	Higher depressive symptoms and peer substance abuse were correlated with tobacco, alcohol, and marijuana use frequency. Higher hope was correlated with lower tobacco, alcohol, and marijuana use frequency. Delinquency was only positively associated with frequency of tobacco and marijuana use

Hope and Stress Resilience

					when levels of hope were low (hope as a moderator).
Hassija et al. (2012)	HS (12-item)	PHQ-9 (9-item) TLEQ (23-item)	Brief Cope (28-item)	None	Hope was negatively associated with depression. Emotionally avoidant coping was positively associated with depression. Hope moderated the relationship between emotionally avoidant coping and depression.
Hirsch et al. (2011)	HS (12-item)	HRSD (24-item)	KPSS (%)	None	Total hope and agency were both negatively associated with depressive symptoms. Functional

Hope and Stress Resilience

					impairment was positively associated with depressive symptoms. Hope agency and pathways both moderated the relationship between functional impairment and depressive symptoms.
Shorey et al. (2003)	HS (12-item)	MHI (38-item)	ASQ (40-item)	None	Hope partially mediated the relationship between attachment and mental health, with higher hope agency and hope pathways associated with greater positive affect, less depression, less anxiety and less

Hope and Stress Resilience

					perceived loss of behavioral/emotional control.
Banks et al. (2008)	HS (12-item)	CES-D (20-item)	Daily Life Experiences	None	Hope agency and pathways both negatively predicted depressive symptoms while racial discrimination positively predicted them. The interaction of hope pathways and racial discrimination positively predicted depressive symptoms. High hope buffered the effects of racial discrimination on depressive symptoms.

Hope and Stress Resilience

Geffken et al. (2006)	HOPES (20-item)	BDI (21-item)	None	None	Hope was negatively associated with depressive symptoms, symptom severity, and denial disengagement coping strategies, and positively associated with active reframing and social support coping strategies. Hope negatively predicted depression.
Sjoquist et al. (2013)	HHI (12-item)	HADS (14-item)	None	None	Trait hope was negatively correlated with anxiety and depression
Rajandram et al. (2011)	ADHS (12-item)	HADS (14-item)	None	None	Hope was negatively correlated with patient's level of

Hope and Stress Resilience

					anxiety and depression. Total hope and agency were significant negative predictors of depression (pathways was not). Hope alone was not a significant predictor of anxiety, but hope and optimism together were.
Mathew et al. (2014)	HS (12-item)	CES-D (20-item)	None	None	Agency and pathways were both significantly negatively correlated with depression. Hope mediated the relationship between perfectionism and depression.

Hope and Stress Resilience

Ai et al. (2005)	ATHS (8-item)	CES-D (20-item)	None	None	Hope was negatively correlated with depression and anxiety. Hope was a negative predictor for both depression and anxiety.
Reff et al. (2005)	HS (12-item)	BDI (21-item)	Exam Outcome	None	Hope was negatively associated with depression. Stress was positively associated with depression. At both low and high stress, high hope protected against increased depression for both low and high levels of defensive maturity.

Hope and Stress Resilience

Yuen et al. (2014)	HS (12-item)	PTGI (21-item)	CCRRS (12-item)	None	Dispositional hope was negatively associated with depression and anxiety.
<i>PTSD</i>					
Kasler et al. (2008)	CHS (6-items)	The PTSD Reaction Index (20-items)	None	None	Sense of hope was negatively associated with PTSD symptoms. Hope was a significant negative predictor of PTSD and positive predictor of social support, which was also negatively correlated with PTSD.
Glass et al. (2009)	SHS (6-item)	IES-R (22-item) BSI (53-item)	Coping after Hurricane Katrina	None	High hope was negatively associated with PTSD symptoms, general

Hope and Stress Resilience

			using briefCOPE (28-item)		psychological distress, and avoidant coping. Avoidant coping was a positive predictor for PTSD symptoms and psychological distress. Hope was a negative predictor for PTSD symptoms and psychological distress. Hope moderated the relation between avoidant coping and psychological distress.
Besser et al. (2014)	HS (12-item)	PCL-C (17-item)	None	None	Hope was negatively associated with acute PTSD and dissociative symptoms. Intrapersonal sources of

Hope and Stress Resilience

					resilience (hope is part of it) was a negative predictor of acute anxiety.
Wu (2011)	SHS (6-item)	C-DTS (17-item) BDI (21-item)	None	None	Hope state was one variable to mediated the effects of PTSD and depression. Hope was a positive predictor of quality of life.
<i>Growth</i>					
Ho et al. (2011)	HS (12-item)	PTGI (21-item)	None	None	High pathways component of hope significantly predicts high PTG in patients with OC cancer. More advanced stages of cancer lead to lower PTG. No interaction term with hope and

Hope and Stress Resilience

					different cancer stages.
Yuen et al. (2014)	HS (12-item)	PTGI (21-item)	CCRRS (12-item)	None	Dispositional hope was positively associated with PTG.
Dew-Reeves et al. (2012)	CHS-PTPB (4-item)	SFSS (26-item)	Baseline SFSS (26-item)	None	Higher levels of hope were associated with lower levels of symptom severity at baseline; however, initial level of hope was not significantly related to symptom improvement over time as reported by the youth and caregiver. Higher level of initial hope predicted slower treatment progress as

Hope and Stress Resilience

						recorded by the clinicians.
--	--	--	--	--	--	-----------------------------

Note: T1 = time 1; T2 = time 2; T3 = time 3; PTSD = posttraumatic stress disorder; PTG = posttraumatic growth; OC = oral cavity.

Interpersonal Functioning

Among the studies considering an association between hope and interpersonal functioning, eight were cross-sectional (88.8%) and one was ambulatory (11.1%). From the nine studies reviewed, all reported main effects consistent with theoretical predictions (see Table 21.4). Specifically, one study found hope to be a moderator (i.e., Elliott, Witty, Herrick, & Hoffman, 1991), one reported no moderation (i.e., Truitt, Biesecker, Capone, Bailey, & Erby, 2012), and the remaining did not conceptualize hope as a moderator. Overall, cross-sectional studies provide mixed evidence regarding potential stress-buffering or protective effects of hope. For example, hope was found to moderate the effect of time since injury on psychosocial impairment for patients who had traumatically acquired physical disabilities (Elliott et al., 1991) but not the relationship between perceived uncertainty of illness and adaptation for caregivers of children with Down syndrome (Truitt et al., 2012).

Physical Health

Minimal data are available on the effect of hope on physical health (e.g., illness symptoms and pain tolerance). Table 21.5 summarizes the identified nine studies. Despite a limited set of studies, longitudinal evidence suggests an association between hope and improved physical health in the overall population. The two longitudinal studies reviewed both provide provisional support for the link between hope and physical health found in cross-sectional work, demonstrating that this association holds even when the two variables are measured many months (ranging from 8 to 48 months) apart (i.e., Richman et al., 2005; Scioli, MacNeil, Partridge, Tinker, & Hawkins, 2012). Among the studies considering a direct association between hope and physical health, eight were consistent with theoretical predictions and one reported null findings (i.e., Rawdin, Evans, & Rabow, 2013).

Summary

This is the first systematic review to focus on the direct and moderating effects of hope on well-being. Although findings from the studies reviewed support a link in both healthy and clinical populations, the presence of basic methodological limitations among studies was frequent (according to the EPHPP criterion). Of primary concern is the limited number of longitudinal and experimental studies. Indeed, studies to date have largely been cross-sectional, making it difficult to infer the causal significance of associations. Overall, perhaps one of the most striking findings is just how few studies have addressed issues related to causality and the (p. 272) (p. 273) (p. 274) direction of association between hope and well-being. In addition to providing a more rigorous assessment of mechanistic pathways, prospective, multiwave, longitudinal studies are critically important in advancing the science of hope and well-being because they (a) allow for tests of theoretical models that assume stability of relations over time; (b) help address questions regarding duration of hope and whether sustained hope over time is associated with health outcomes above and beyond a single report; and (c) provide evidence against reverse-causality arguments, which posit that individuals who are ill may also report less hope. Similarly, as noted earlier, controlled experimental studies investigating (p. 275) (p. 276) the effect of hope on health outcomes are especially scarce. Thus prospective and experimental studies addressing the causal relationship between hope and well-being are urgently needed.

Hope and Stress Resilience

Table 21.3. Summary of Hope and Behavior Findings in Healthy and Clinical Populations

Hope and Stress Resilience

Study	Hope Measure	Outcome Measure	Stress Measure	Comparison Group	Findings
<i>Externalizing Behaviors</i>					
Barnum et al. (1998)	THS (8-item)	CBCL (118-item)	None	Same gender friends	Burn victims had no difference from control for affective, self-esteem, or school performance variable but scored somewhat lower on internalizing and externalizing behavior. Higher hope predicted less externalizing behavior.
Fite et al. (2014)	CHS (6-item)	CSAP Student Survey (3-item)	Depressive symptoms and peer substance abuse	None	Higher depressive symptoms and peer substance abuse were correlated with tobacco, alcohol, and marijuana use

Hope and Stress Resilience

					frequency. Higher hope was correlated with lower tobacco, alcohol, and marijuana use frequency. Delinquency was only positively associated with frequency of tobacco and marijuana use when levels of hope were low (hope as a moderator).
Hagen et al. (2005)	CHS (12-item)	YSR (112-item)	Number of Life Stressors	None	High hope was associated with less internalizing and externalizing problems. Stress predicted internalizing behaviors and hope predicts both internalizing and

Hope and Stress Resilience

					externalizing behaviors. Stress and hope operated independently.
Cedeno et al. (2010)	CHS (6-item)	SSRS-T	None	None	Hope was inversely related to externalizing behaviors and positively related to self-concept. Hope moderated the effects of both direct and indirect victimization on self-concept in girls.
Martin & Stermac (2010)	HS (12-item)	LSI-OR (54-item)	None	None	Higher levels of agency, not pathways, were associated with lower estimated risk of recidivism.

Hope and Stress Resilience

Stoddard et al. (2011)	EQ-I:YV (4-item)	Add Health Student Survey (4-item)	Parent-Family Connectedness (7-item), School Connectedness (10-item)	None	Lower parent-family connectedness predicted violence involvement. Lower school connectedness marginally predicted violence involvement. Hopefulness was related to lower levels of violence even after controlling for demographic variables. The relationship between school connectedness and violence was mediated by hopefulness.
<i>Suicide</i>					

Hope and Stress Resilience

Chang et al. (2015)	HS (12-item)	SBQ-R (4-item)	None	No past sexual assault	Sexual assault predicted greater suicidal risk. Higher hope predicted lower suicidal risk. High hope students reported the highest levels of reasons for living independent of their experience of sexual assault. High hope students reported the lowest suicide risk independent of their experience of sexual assault.
Chang et al. (2013)	HS (12-item)	SBQ-R (4-item) and BHS (20-item)	None	None	Higher hope predicted lower suicidal risk. The interaction of hope and positive problem

Hope and Stress Resilience

					orientation was significant in experiencing less suicide behavior.
Davidson et al. (2010)	HS-R2 (18-item)	ACSS (20-item) and HDSQ-SS (4-item)	ACSS (20-item)	None	Hope was associated with lower levels of burdensomeness but was not a significant predictor of suicidal ideation. Only optimism remained significant after hope and optimism were entered into a hierarchical regression.
O'Keefe & Wingate (2013)	THS (8-item)	ACSS (20-item) and HDSQ-SS (4-item)	None	None	American Indian ethnicity was not a significant predictor for any outcome variables. Hope, agency, and pathways all

Hope and Stress Resilience

					predicted thwarted belongingness negatively, perceived burdensomeness negatively, suicidal ideation negatively, and acquired capability positively.
<i>Coping Strategies</i>					
Roesch et al. (2010)	CHS (6-items)	CCSC HICUPS	Perceived stressful events	None	Perceived stress was positively correlated with direct problem-solving, planning, and religious coping. Hope-pathways was uniquely and positively related to direct problem-solving, planning, positive thinking, religious coping,

Hope and Stress Resilience

					distracting action, and overall coping. Perceived stress was not correlated with pathways or agency.
Hackbarth et al. (2012)	SHS (6-item)	F-COPES (30-item) and	None	None	State hope positively predicted family coping.
Howell et al. (2015)	SHS (6-item) CSHS (20-item)	PAQ-R (20-item)	None	None	Pretreatment hope and change in hope were predictive of improved well-being and lower pain catastrophizing in a hope-focused counseling intervention.
Jackson et al. (1998)	HS (12-item)	MBHI (150-item)	None	None	Higher hope was associated with more sociable, proactive coping

Hope and Stress Resilience

					styles. Hope mediated the relation of coping to functional ability. The relation of hope to functional ability was not moderated by levels of inhibited/avoidant coping style.
Irving et al. (1998)	HS (12-item)	Agentic and pathways hopeful thoughts regarding cancer risk, detection, course, and impact questionnaire.	None	None	Higher hope women had more hopeful coping responses in imagined phases of cancer.
Kashdan et al. (2002)	HS (12-item)	COPEs (60-item) and HDL (33-item)	LES (67-item) ISLE (61-item)	None	Hope was positively associated with parental and familial-functioning indices and negatively associated with

Hope and Stress Resilience

					stress measures. Hope positively predicted psychological functioning.
<i>Academic/Athletic Achievement</i>					
Snyder et al. (2002)	HS (8-item)	GPA, Graduation Status	None	None	Hope positively predicted GPA and likelihood of graduating from college.
Gustafsson et al. (2010)	SHS (6-item)	ABQ (15-item)	None	None	State agency and pathways both negatively correlated with all burnout dimensions. Athletes low in hope experienced greater burnout than medium-hope and high-hope counterparts.

Hope and Stress Resilience

Gustafsson et al. (2013)	THS (12-item)	ABQ (15-item)	PSS (10-item)	None	Agency and pathways were negatively correlated with all burnout dimensions and stress. Stress fully mediated the relationship between hope and burnout.
<i>Health Behaviors</i>					
Kortte et al. (2012)	HS (12-item)	FIM (13-item) and CHART (19-item)	None	None	Hope positively predicted functional role participation.
Feldman and Sills (2013)	HS (12-item)	Health Promoting Behaviors (4-item)	None	None	In Asians, the hope and knowledge interaction term positively predicted reduced salt/fat intake and visiting doctors. In Latinos, the hope and diet change

Hope and Stress Resilience

					importance term predicted reduced salt/fat intake and the hope and exercise change importance term predicted increased exercise.
Van Allen and Steele (2012)	CHS (6-item)	PAQ-C (9-item) or PAQ-A (8-item)	None	None	Change in hope positively predicted physical activity at time 2.
Berg et al. (2011)	CHS (6-item)	MDIC (14-day)	FEV1	None	Hope was a significant predictor of adherence to metered-dose inhalers beyond FEV1 levels.

Hope and Stress Resilience

Table 21.4. Summary of Hope and Interpersonal Functioning Findings in Healthy and Clinical Populations					
Study	Hope Measure	Outcome Measure	Stress Measure	Comparison Group	Findings
<i>Interpersonal Functioning</i>					
Elliott et al. (1991)	HS (12-item)	SIP (136-item)	TSI	None	Hope-pathway predicted psychosocial impairment and depression. Time since injury was not predictive of depression or impairment. Sense of agency moderated impairment in early months following injury and this relationship faded. Pathways moderated degrees of psychosocial

Hope and Stress Resilience

					impairment as time passed.
Kashdan et al. (2002)	HS (12-item)	SAS-SR (54-item) DAS (33-item) FES (90-item) P-CRQ (19-item)	LES (67-item), ISLE (61-item)	None	High hope was associated with cohesion, intellectual orientation, active-recreational orientation, and positive parenting factor and significantly predicted greater adaptive individual and familial functioning.
Truitt et al. (2012)	HS (12-item)	Adaptation Scale (20-items)	PPUS (31-item)	None	Uncertainty (negative) and hope (positive) independently predicted caregiver adaptation (includes social integration). Hope did not moderate

Hope and Stress Resilience

					the relationship between uncertainty and adaptation.
Hernandez et al. (2013)	Hope for Patient's Future Scale (20-items)	FBIS (20-item)	PANSS (30-item), Duration of illness	None	Longer duration of illness was correlated with lower family burden. High hope predicted lower family burden (fewer problems affecting routine activities, family interaction, and effect of mental health on others).
Padilla-Walker et al. (2011)	CHS (6-items)	SCS (9-item)	SCS (9-item)	None	Child-report family connectedness was positively associated with prosocial behavior and negatively with internalizing. Hope positively predicted

Hope and Stress Resilience

					prosocial behavior and negatively predicted internalizing. Hope mediated the relation between child-reported family connectedness and adolescents' prosocial behavior, school engagement, and internalizing behavior.
Irving et al. (1997)	HS (8-item)	PSS (40-item) CRI (58-item)	None	None	Higher hope was associated with greater perceived social support from family and friends and the use of adaptive coping strategies.
Lee (2001)	HHI (12-item)	Psychosocial Adjustment to	PFS-R (22-item)	None	Hope significantly explained 7% of the variance in

Hope and Stress Resilience

		Breast Cancer Factor			psychosocial adjustment after controlling for fatigue. Fatigue explained 38% after controlling for hope. There was no significant interaction between fatigue and hope in accounting for psychosocial adjustment variance.
Rock et al. (2014)	AHS (12-item)	POMS (65-item)	None	None	Higher patient hope predicted greater patient marital satisfaction. The interaction of patient optimism and partner hope significantly predicted patient

Hope and Stress Resilience

					marital satisfaction.
Schwartz and Hadar (2007)	HS (12-item)	Caregiving Benefit Questionnaire (14-item)	Subjective and Objective Burden (29-item)	None	Higher hope was predictive of increased caregiving benefits.

Other methodological challenges concern the measurement of hope, stress, and well-being, as well as adequate assessment of potential confounders. The vast majority of included studies relied upon self-report measures of hope, with very few studies examining the effects of manipulated hope on health and well-being outcomes. Moreover, so few investigations of hope and health have been conducted using objective health assessment tools (e.g., changes in respiration, skin conductance, brain activity) that conclusions must be made cautiously. Considering the significant heterogeneity across studies in measures of hope and stress, measurement error remains an issue that may contribute to biases associated with effect estimation (Hutcheon, Chiolerio, & Hanley, 2010). Likewise, the inclusion of confounding variables, such as optimism and personality constructs (Bryant & Cvengros, 2004; Gallagher & Lopez, 2009), varied widely among studies. Finally, considering the relative paucity of studies assessing positive outcomes (e.g., psychological well-being, developmental growth) in response to challenge, attention to how hope enhances restorative processes as well as protects from deteriorative ones is critical and presents an important avenue for future research.

Importantly, very limited work has been done to evaluate the potential moderating or protective effects of hope. Only a minority of studies (19.1%) demonstrated a moderating or stress-buffering effect of hope on health and well-being. Indeed, in many cases, risk factors or stressors were inferred from aversive or otherwise unfavorable contexts (e.g., poverty, parental psychopathology) rather than empirically assessed. Thus there is a critical need for additional studies examining the protective effects of hope on well-being in both healthy and clinical populations.

Limitations

The present review has some limitations that deserve attention. First, it is a narrative review and (p. 277) (p. 278) consequently does not provide a quantitative summary of data across studies. A meta-analysis was not feasible because we considered diverse measures of hope and stress in various forms (e.g., continuous vs. categorical), as well as a diverse set of outcomes. Thus, due to the wide variety of methods and study designs used to investigate the associations between hope, stress, and well-being, we did not believe a meta-analysis would have been an appropriate tool to communicate the goals of this review. Although a number of qualitative and quantitative reviews of the link between hope and well-being have been conducted (Alarcon et al., 2013; Snyder, 2002), our goal in this chapter was to comprehensively review previous work to assess the state of the current research on hope and stress resilience and discuss methodological challenges and directions for future research. Additionally, we note that the risk of publication bias is inherent in any systematic review of empirical evidence. Positive publication bias can cause studies that report null or inconclusive associations between hope, stress, and well-

Hope and Stress Resilience

being to remain unpublished. Such a bias may also result in a failure to publish disconfirming evidence (Stern & Simes, 1997).

Hope and Stress Resilience

Table 21.5. Summary of Hope and Physical Health Findings in Healthy and Clinical Populations					
Study	Hope Measure	Outcome Measure	Stress Measure	Comparison Group	Findings
<i>Illness Symptoms</i>					
Berendes et al. (2010)	ATHS (8-item)	BFI (9-item) and QLQ-LC13	None	None	Hope was inversely associated with major symptoms of cancer (pain, fatigue, and cough) and lower depression.
Rawdin et al. (2013)	HHI (12-item)	BPI (9-item)	None	None	Hope scores were negatively correlated with average pain intensity. However, after controlling for covariates, the relationship between pain intensity and hope

Hope and Stress Resilience

					was no longer significant.
Santos et al. (2015)	HHI (12-item)	HbA1c levels	None	None	High levels of the construct hope were positively associated with improved glycemic control for patients with type 1 diabetes. Hope negatively predicted depression.
Billington et al. (2008)	HS (12-item)	KDQOL (36-item)	None	None	Hope had a significant inverse relationship with the effects and symptoms of kidney disease. Hope negatively predicted anxiety, depression, and effects and symptoms of kidney disease and positively

Hope and Stress Resilience

					predicted mental health quality of life.
Lloyd et al. (2009)	CHS (6-item)	HbA1c levels	None	None	Higher levels of hope were correlated with better glycemic control. Hope was positively correlated with perceived maternal empathy. Hope significantly predicted glycemic control.
Richman et al. (2005)	Ellsworth and Smith Emotion Scale	Health outcomes (HT, RTIs, DM)	None	None	Across three disease outcomes, higher levels of hope were associated with a decreased likelihood of having or developing a disease.

Hope and Stress Resilience

Scioli et al. (2012)	Comprehensive Trait Hope Scales (56-item)	SF-36, CD4 values	None	None	Greater total hope was associated with higher self-reported physical functioning as well as greater immunological status.
<i>Pain Tolerance</i>					
Berg et al. (2008)	HSR (18-item), Hope interventions	CPT, PCS	None	No Hope Intervention	Receiving the hope intervention resulted in a greater increase in hope, increased pain tolerance, and a marginally significant increase in pain severity.
Snyder et al. (2005)	THS (8-item)	CPT	None	None	Hope was positively correlated with length of time

Hope and Stress Resilience

					keeping their hands in water.
--	--	--	--	--	-------------------------------

Conclusion

In this chapter, we focus on what is currently known regarding hope a source of stress resilience for mental and physical health, giving emphasis to theoretical predictions, underlying mechanisms, and methodological gaps that currently exist in the literature. Although there is growing support for an association between hope and well-being in healthy and clinical populations, full understanding of the phenomenon is far from complete. The main issues limiting the validity and generalizability of the results include inadequate control of confounders, insufficient information regarding study design, small heterogeneous samples, and a paucity of longitudinal and experimental studies. Thus more carefully conducted and theoretically informed research is needed before one can have confidence that hope affects well-being in a favorable way. Overall, the pattern of findings suggests that aggregate or trait-like measures provide the most consistent evidence of a direct association between hope and well-being. At present, less evidence exists for protective effects of hope. A critical direction for future research is to elucidate the mechanisms by which hope contributes to adaptive health outcomes in the face of adversity. To the extent that progress can be made on these issues, efforts to combat hopelessness may play an important role in improving well-being, minimizing chronic illness, and prolonging life.

Future Directions

- What are the causal pathways linking hope and physical health?
- What are the limiting conditions by which hope influences health and well-being in both healthy and patient populations?
- What is the contribution of age and disease severity to the relationship between hope and health?
- What is the role of variability and level of hope in conferring vulnerability to poor health?
- To what extent does sustained hope over time show stronger associations with health and well-being than a single hope assessment?

Glossary of Terms

ABQ

Athlete Burnout Questionnaire

ACSS

Acquired Capability for Suicide Scale
ADHS
Adult Dispositional Hope Scale
AOAQ
Adaptation to Old Age Questionnaire
ASE
academic self-efficacy
ASQ
Attachment Style Questionnaire
ATHS
Adult Trait Hope Scale
BDII
Beck Depression Inventory
BFI
Brief Fatigue Inventory
BHI
Basic Hope Inventory
BHS
Beck Hopelessness Scale
BMSLSS
Brief Multidimensional Student's Life Satisfaction Scale
BPI
Brief Pain Inventory
BSI
Brief Symptom Inventory
CBCL
Child Behavior Checklist
CCRRS
Chinese Cancer-Related Rumination Scale
CCSC
Children's Coping Strategies Checklist
CES-D
Center for Epidemiological Studies Depression Scale
CHART
Craig Handicap Assessment and Reporting Technique
CHS
Children's Hope Scale
CPT
cold pressure task
CSAP
Center for Substance Abuse Prevention
CSE
core self-evaluations

CSHS

Comprehensive State Hope Scale

(p. 279) DAS

Dyadic Adjustment Scale

DASS

Depression Anxiety Stress Scale

DLQI

Dermatology Life Quality Index

EPDS

Edinburgh Post-Natal Depression Scale

EPDS

Edinburgh Post-Natal Depression Scale

EQ-YV

Emotional Quotient Inventory

F-COPES

Family Crisis Oriented Personal Evaluation Scale

FBIS

Family Burden Interview Scale

FES

Family Environment Scale

FEV1

forced expiratory volume in 1 second

FIM

functional independence measure

GPA

grade point average

HADS

Hospital Anxiety and Depression Scale

HDL

Health and Daily Living Form

HDSQ-SS

Hopelessness Depressive Symptom Questionnaire–Suicidality Subscale

HHI

Herth Hope Index

HHS

Herth Hope Scale

HICUPS

How I Coped Under Pressure Scale

HOPES

Hunter Opinions and Personal Expectations Scale

HRSD

Hamilton Rating Scale for Depression

HS

Trait Hope Scale
HSR
The Trait Hope Scale—Revised
IDD
Inventory to Diagnose Depression
IES
Impact of Event Scale
IES-R
Impact of Event Scale—Revised
IPPA
Inventory of Parent and Peer Attachment
ISLE
Inventory of Small Life Events
KDQOL
Kidney Disease Quality of Life
KPSS
Karnofsky Performance Status Scale
LEC
Life Events Checklist
LES
Life Event Scale
LGBTCI
Lesbian, Gay, Bisexual, Transgendered Climate Inventory
LSI-OR
Level of Service Inventory—Ontario Revised
LSIA
Life Satisfaction Index—Form A
M-Cope
Multidimensional Coping Scale
MBHI
Millon Behavioral Health Inventory
MBI
Maslach Burnout Inventory
MDIC
metered-dose inhaler chronology
MHI
Mental Health Inventory
P-CRQ
Parent-Child Relationship Questionnaire
PANAS
Positive and Negative Affect Scale
PAQ
Physical Activity Questionnaire

PAQ-R
Pain Acceptance Questionnaire —Revised
PCL-C
PTSD Checklist—Civilian Version
PCS
Pain Catastrophizing Scale
PDI
Pain Disability Index
PedsQL
Pediatric Quality of Life Inventory
PFS-R
Piper Fatigue Scale—Revised
PHQ
Patient Health Questionnaire
POMS
Profile of Mood States—Standard Form
PPUS
Parental Perceived Uncertainty Scale
PSS
Perceived Stress Scale
PTGI
Posttraumatic Growth Inventory
QLQ-LC13
European Organization for Research and Treatment of Cancer Quality of Life
Questionnaire—Lung Cancer Module
QOLI
Quality of Life Inventory
REVS
Recent Exposure to Violence Scale
RNLI
Reintegration to Normal Living Index
RRS
Rumination Responses Scale
SAI-E
Schedule for Assessment of Insight—Expanded
SAS-SR
Social Adjustment Scale—Self Report
SBQ-R
Suicidal Behaviors Questionnaire—Revised
SCS
Social Connectedness Scale
SDS
Self-Rating Depression Scale

SF
Short Form Health Survey
SHS
State Hope Scale
SIP
Sick Impact Profile
SFSS
Symptoms and Functioning Severity Scale
SLSS
Student Life Satisfaction Scale
SSRS-T
Social Skills Rating System Survey
STAI
Spielberger State Anxiety Scale
SWLS
Satisfaction with Life Scale
TAPES
Trinity Amputation and Prosthetic Experiences Scale
TRS
The Reiss Scales
TSHS
The State Hope Scale
TSI
time since injury
W-QLI
Wisconsin Client Quality of Life Questionnaire—Mental Health
WAYS
The Ways of Coping Scale
WCQ
Ways of Coping Questionnaire
WHO-5
World Health Organization—Five Well Being Index
WHOQOL-BREF
World Health Organization Quality of Life
YSR
Youth Self-Report

References

Ai, A. L., Cascio, T., Santangelo, L. K., & Evans-Campbell, T. (2005). Hope, meaning, and growth following the September 11, 2001, terrorist attacks. *Journal of Interpersonal Violence, 20*, 523–548. doi:10.1177/0886260504272896

Hope and Stress Resilience

- Ai, A. L., Park, C. L., Huang, B., Rodgers, W., & Tice, T. N. (2007). Psychosocial mediation of religious coping styles: A study of short-term psychological distress following cardiac surgery. *Personality and Social Psychology Bulletin, 33*, 867–882. doi: 10.1177/0146167207301008
- Alarcon, G. M., Bowling, A., & Khazon, S. (2013). Great expectations: A meta-analytic examination of optimism and hope. *Personality and Individual Differences, 54*, 821–827.
- Arnau, R. C., Rosen, D. H., Finch, J. F., Rhudy, J. L., & Fortunato, V. J. (2007). Longitudinal effects of hope on depression and anxiety: A latent variable analysis. *Journal of Personality, 75*, 43–64. doi:10.1111/j.1467-6494.2006.00432.x
- Baltes, P. B. (1987). Theoretical propositions of life-span developmental psychology: On the dynamics between growth and decline. *Developmental Psychology, 23*, 611–626. doi: 10.1037/0012-1649.23.5.611
- Baltes, P. B., & Baltes, M. M. (Eds.). (1990). *Successful aging: Perspectives from the behavioral sciences*. New York: Cambridge University Press.
- Baltes, P. B., Reese, H. W., & Lipsitt, L. P. (1980). Life-span developmental psychology. *Annual Review of Psychology, 31*, 65–110.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist, 37*, 122–147.
- Banks, K. H., Singleton, J. L., & Kohn-Wood, L. P. (2008). The influence of hope on the relationship between racial discrimination and depressive symptoms. *Journal of Multicultural Counseling and Development, 36*, 231–244.
- Barnum, D. D., Snyder, C. R., Rapoff, M. A., Mani, M. M., & Thompson, R. (1998). Hope and social support in the psychological adjustment of children who have survived burn injuries and their matched controls. *Children's Health Care, 27*, 15–30. doi:10.1207/s15326888chc2701_2
- Berendes, D., Keefe, F. J., Somers, T. J., Kothadia, S. M., Porter, L. S., & Cheavens, J. S. (2010). Hope in the context of lung cancer: Relationships of hope to symptoms and psychological distress. *Journal of Pain and Symptom Management, 40*, 174–182. doi: 10.1016/j.jpainsymman.2010.01.014
- Berg, C. J., Ritschel, L. A., Swan, D. W., An, L. C., & Ahluwalia, J. S. (2011). The role of hope in engaging in healthy behaviors among college students. *American Journal of Health Behavior, 35*, 402–415.
- Berg, C. J., Snyder, C. R., & Hamilton, N. (2008). The effectiveness of a hope intervention in coping with cold pressor pain. *Journal of Health Psychology, 13*, 804–809. doi: 10.1177/1359105308093864

Hope and Stress Resilience

- Besser, A., Weinberg, M., Zeigler-Hill, V., & Neria, Y. (2014). Acute symptoms of posttraumatic stress and dissociative experiences among female Israeli civilians exposed to war: The roles of intrapersonal and interpersonal sources of resilience. *Journal of Clinical Psychology, 70*, 1227–1239. doi:10.1002/jclp.22083
- Besser, A., & Zeigler-Hill, V. (2014). Positive personality features and stress among first-year university students: Implications for psychological distress, functional impairment, and self-esteem. *Self and Identity, 13*, 24–44. doi:10.1080/15298868.2012.736690
- Billington, E., Simpson, J., Unwin, J., Bray, D., & Giles, D. (2008). Does hope predict adjustment to end-stage renal failure and consequent dialysis? *British Journal of Health Psychology, 13*, 683–699. doi:10.1348/135910707x248959
- Bluvol, A., & Ford-Gilboe, M. (2004). Hope, health work and quality of life in families of stroke survivors. *Journal of Advanced Nursing, 48*, 322–332. doi:10.1111/j.1365-2648.2004.03004.x
- Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? *American Psychologist, 59*, 20–28.
- Bonanno, G. A. (2005). Resilience in the face of potential trauma. *Current Directions in Psychological Science, 14*, 135–138.
- Bonanno, G. A., Galea, S., Bucciarelli, A., & Vlahov, D. (2006). Psychological resilience after disaster: New York City in the aftermath of the September 11th terrorist attack. *Psychological Science, 17*, 181–186.
- Bonanno, G. A., Wortman, C. B., Lehman, D. R., Tweed, R. G., Haring, M., Sonnega, J., . . . Nesse, R. M. (2002). Resilience to loss and chronic grief: A prospective study from preloss to 18-months postloss. *Journal of Personality and Social Psychology, 83*, 1150–1164.
- Bryant, F. B., & Cvenegros, J. A. (2004). Distinguishing hope and optimism: Two sides of a coin, or two separate coins? *Journal of Social and Clinical Psychology, 23*, 273–302.
- Cedeno, L. A., Elias, M. J., Kelly, S., & Chu, B. C. (2010). School violence, adjustment, and the influence of hope on low-income, African American youth. *American Journal of Orthopsychiatry, 80*, 213–226. doi:10.1111/j.1939-0025.2010.01025.x
- Chang, E. C., & DeSimone, S. L. (2001). The influence of hope on appraisals, coping, and dysphoria: A test of hope theory. *Journal of Social and Clinical Psychology, 20*, 117–129.
- Chang, E. C., Yu, E. A., Kahle, E. R., Jeglic, E. L., & Hirsch, J. K. (2013). Is doubling up on positive future cognitions associated with lower suicidal risk in Latinos? A look at hope

and positive problem orientation. *Cognitive Therapy and Research*, 37, 1285–1293. doi:10.1007/s10608-013-9572-x

Chang, E. C., Yu, T., Jilani, Z., Fowler, E. E., Yu, E. A., Lin, J., & Hirsch, J. K. (2015). Hope under assault: Understanding the impact of sexual assault on the relation between hope and suicidal risk in college students. *Journal of Social and Clinical Psychology*, 34, 221–238.

Davidson, C. L., & Wingate, L. R. (2013). The glass half-full or a hopeful outlook: Which explains more variance in interpersonal suicide risk in a psychotherapy clinic sample? *Journal of Positive Psychology*, 8, 263–272. doi:10.1080/17439760.2013.787446

Davidson, C. L., Wingate, L. R., Sligh, M. L., & Rasmussen, K. A. (2010). The great Black hope: Hope and its relation to suicide risk among African Americans. *Suicide and Life-Threatening Behavior*, 40, 170–180.

Deeks, J. J., Dinnes, J., D'Amico, R., Sowden, A. J., Sakarovich, C., Song, F., . . . Altman, D. G. (2003). Evaluating nonrandomised intervention studies. *Health Technology Assessment*, 7, 3–173.

Dew-Reeves, S. E., Athay, M. M., & Kelley, S. D. (2012). Validation and use of the Children's Hope Scale–Revised PTPB Edition (CHS-PTPB): High initial youth hope and elevated baseline symptomatology predict poor treatment outcomes. *Administration and Policy in Mental Health and Mental Health Services Research*, 39, 60–70. doi:10.1007/s10488-012-0411-2

Edwards, L. M., Rand, K. L., Lopez, S. J., & Snyder, C. R. (2006). Understanding hope: A review of measurement and (p. 281) construct validity research. In A. D. Ong & M. van Dulmen (Eds.), *Handbook of methods in positive psychology* (pp. 83–95). New York: Oxford University Press.

Elliott, T. R., Witty, T. E., Herrick, S., & Hoffman, J. T. (1991). negotiating reality after physical loss—Hope, depression, and disability. *Journal of Personality and Social Psychology*, 61, 608–613. doi:10.1037//0022-3514.61.4.608

Evangelista, L. S., Doering, L. V., Dracup, K., Vassilakis, M. E., & Kobashigawa, J. (2003). Hope, mood states and quality of life in female heart transplant recipients. *Journal of Heart and Lung Transplantation*, 22, 681–686. doi:10.1016/s1053-2498(02)00652-6

Farone, D. W., Fitzpatrick, T. R., & Bushfield, S. Y. (2007). Hope, locus of control, and quality of health among elder Latina cancer survivors. *Social Work in Health Care*, 46, 51–70.

Feldman, D. B., & Sills, J. R. (2013). Hope and cardiovascular health-promoting behaviour: Education alone is not enough. *Psychology & Health*, 28, 727–745. doi:10.1080/08870446.2012.754025

Hope and Stress Resilience

Fite, P. J., Gabrielli, J., Cooley, J. L., Haas, S. M., Frazer, A., Rubens, S. L., & Johnson-Motoyama, M. (2014). Hope as a moderator of the associations between common risk factors and frequency of substance use among Latino adolescents. *Journal of Psychopathology and Behavioral Assessment*, *36*, 653-662. doi:10.1007/s10862-014-9426-1

Gallagher, M. W., & Lopez, S. J. (2009). Positive expectancies and mental health: Identifying the unique contributions of hope and optimism. *Journal of Positive Psychology*, *4*, 548-556.

Garnezy, N. (1985). Stress-resistant children: The search for protective factors. In J. E. Stevenson (Ed.), *Recent research in developmental psychopathology: Journal of Child Psychology and Psychiatry Book Supplement* (pp. 213-233). Oxford: Pergamon Press.

Garnezy, N. (1987). Stress, competence, and development: Continuities in the study of schizophrenic adults, children vulnerable to psychopathology, and the search for stress-resistant children. *American Journal of Orthopsychiatry*, *57*, 159-174.

Garnezy, N., Masten, A. S., & Tellegen, A. (1984). The study of stress and competence in children: A building block for developmental psychopathology. *Child Development*, *55*, 97-111.

Geffken, G. R., Storch, E. A., Duke, D. C., Monaco, L., Lewin, A. B., & Goodman, W. K. (2006). Hope and coping in family members of patients with obsessive-compulsive disorder. *Journal of Anxiety Disorders*, *20*, 614-629. doi:10.1016/j.janxdis.2005.07.001

Gilman, R., & Dooley, J. (2006). Relative levels of hope and their relationship with academic and psychological indicators among adolescents. *Journal of Social and Clinical Psychology*, *25*, 166-178. doi:10.1521/jscp.2006.25.2.166

Glass, K., Flory, K., Hankin, B. L., Kloos, B., & Turecki, G. (2009). Are coping strategies, social support, and hope associated with psychological distress among Hurricane Katrina survivors? *Journal of Social and Clinical Psychology*, *28*, 779-795.

Gustafsson, H., Hassmen, P., & Podlog, L. (2010). Exploring the relationship between hope and burnout in competitive sport. *Journal of Sports Sciences*, *28*, 1495-1504. doi:10.1080/02640414.2010.521943

Gustafsson, H., Skoog, T., Podlog, L., Lundqvist, C., & Wagnsson, S. (2013). Hope and athlete burnout: Stress and affect as mediators. *Psychology of Sport and Exercise*, *14*, 640-649. doi:10.1016/j.psychsport.2013.03.008

Hackbarth, M., Pavkov, T., Wetchler, J., & Flannery, M. (2012). Natural disasters: An assessment of family resiliency following Hurricane Katrina. *Journal of Marital and Family Therapy*, *38*, 340-351. doi:10.1111/j.1752-0606.2011.00227.x

Hope and Stress Resilience

- Hagen, K. A., Myers, B. J., & Mackintosh, V. H. (2005). Hope, social support, and behavioral problems in at-risk children. *American Journal of Orthopsychiatry*, *75*, 211-219. doi:10.1037/0002-9432.75.2.211
- Hartley, S. M., Vance, D. E., Elliott, T. R., Cuckler, J. M., & Berry, J. W. (2008). Hope, self-efficacy, and functional recovery after knee and hip replacement surgery. *Rehabilitation Psychology*, *53*, 521-529. doi:10.1037/a0013121
- Hassija, C. M., Luterek, J. A., Naragon-Gainey, K., Moore, S. A., & Simpson, T. (2012). Impact of emotional approach coping and hope on PTSD and depression symptoms in a trauma exposed sample of veterans receiving outpatient VA mental health care services. *Anxiety Stress and Coping*, *25*, 559-573. doi:10.1080/10615806.2011.621948
- Hasson-Ohayon, I., Kravetz, S., Meir, T., & Rozencwaig, S. (2009). Insight into severe mental illness, hope, and quality of life of persons with schizophrenia and schizoaffective disorders. *Psychiatry Research*, *167*, 231-238.
- Hayashino, Y., Utsugi-Ozaki, M., Feldman, M. D., & Fukuhara, S. (2012). Hope modified the association between distress and incidence of self-perceived medical errors among practicing physicians: Prospective cohort study. *PLoS One*, *7*. doi:10.1371/journal.pone.0035585
- Hernandez, M., Barrio, C., & Yamada, A. M. (2013). Hope and burden among Latino families of adults with schizophrenia. *Family Process*, *52*, 697-708. doi:10.1111/famp.12042
- Hirsch, J. K., Sirois, F. M., & Lyness, J. M. (2011). Functional impairment and depressive symptoms in older adults: Mitigating effects of hope. *British Journal of Health Psychology*, *16*, 744-760.
- Ho, S., Rajandram, R. K., Chan, N., Samman, N., McGrath, C., & Zwahlen, R. A. (2011). The roles of hope and optimism on posttraumatic growth in oral cavity cancer patients. *Oral Oncology*, *47*, 121-124. doi:10.1016/j.oraloncology.2010.11.015
- Ho, S. M., Ho, J. W., Bonanno, G. A., Chu, A. T., & Chan, E. M. (2010). Hopefulness predicts resilience after hereditary colorectal cancer genetic testing: A prospective outcome trajectories study. *BMC Cancer*, *10*, 279.
- Horton, T. V., & Wallander, J. L. (2001). Hope and social support as resilience factors against psychological distress of mothers who care for children with chronic physical conditions. *Rehabilitation Psychology*, *46*, 382-399. doi:10.1037/0090-5550.46.4.382
- Howell, A. J., Jacobson, R. M., & Larsen, D. J. (2015). Enhanced psychological health among chronic pain clients engaged in hope-focused group counseling. *Counseling Psychologist*, *43*, 586-613. doi:10.1177/0011000014551421

Hope and Stress Resilience

Hutcheon, J. A., Chioloro, A., & Hanley, J. A. (2010). Random measurement error and regression dilution bias. *BMJ*, *340*, c2289.

Irving, L. M., Snyder, C. R., & Crowson, J. J. (1998). Hope and coping with cancer by college women. *Journal of Personality*, *66*, 195–214. doi:10.1111/1467-6494.00009

Irving, L. M., Telfer, L., & Blake, D. D. (1997). Hope, coping, and social support in combat-related posttraumatic stress disorder. *Journal of Traumatic Stress*, *10*, 465–479. doi:10.1002/jts.2490100311

(p. 282) Jackson, N., & Waters, E. (2005). Criteria for the systematic review of health promotion and public health interventions. *Health Promotion International*, *20*, 367–374.

Jackson, W. T., Taylor, R. E., Palmatier, A. D., Elliott, T. R., & Elliott, J. L. (1998). Negotiating the reality of visual impairment: Hope, coping, and functional ability. *Journal of Clinical Psychology in Medical Settings*, *5*, 173–185.

Jiang, X., Huebner, E. S., & Hills, K. J. (2013). Parent attachment and early adolescents' life satisfaction: The mediating effect of hope. *Psychology in the Schools*, *50*, 340–352. doi:10.1002/pits.21680

Kashdan, T. B., Pelham, W. E., Lang, A. R., Hoza, B., Jacob, R. G., Jennings, J. R., . . . Gnagy, E. M. (2002). Hope and optimism as human strengths in parents of children with externalizing disorders: Stress is in the eye of the beholder. *Journal of Social and Clinical Psychology*, *21*, 441–468. doi:10.1521/jscp.21.4.441.22597

Kasler, J., Dahan, J., & Elias, M. J. (2008). The relationship between sense of hope, family support and post-traumatic stress disorder among children: The case of young victims of rocket attacks in Israel. *Vulnerable Children and Youth Studies*, *3*, 182–191.

Kortte, K. B., Gilbert, M., Gorman, P., & Wegener, S. T. (2010). Positive psychological variables in the prediction of life satisfaction after spinal cord injury. *Rehabilitation Psychology*, *55*, 40–47.

Kortte, K. B., Stevenson, J. E., Hosey, M. M., Castillo, R., & Wegener, S. T. (2012). Hope predicts positive functional role outcomes in acute rehabilitation populations. *Rehabilitation Psychology*, *57*, 248–255. doi:10.1037/a0029004

Krause, J. S., & Edles, P. A. (2014). Injury perceptions, hope for recovery, and psychological status after spinal cord injury. *Rehabilitation Psychology*, *59*, 176–182. doi:10.1037/a0035778

Kwon, P., & Hugelshofer, D. (2010). The protective role of hope for lesbian, gay, and bisexual individuals facing a hostile workplace climate. *Journal of Gay & Lesbian Mental Health*, *14*(1), 3–18.

Hope and Stress Resilience

Lee, E.-H. (2001). Fatigue and hope: Relationships to psychosocial adjustment in Korean women with breast cancer. *Applied Nursing Research, 14*, 87–93.

Lloyd, S. M., Cantell, M., Pacaud, D., Crawford, S., & Dewey, D. (2009). Brief report: Hope, perceived maternal empathy, medical regimen adherence, and glycemic control in adolescents with type 1 diabetes. *Journal of Pediatric Psychology, 34*, 1025–1029. doi:10.1093/jpepsy/jsn141

Lloyd, T. J., & Hastings, R. (2009). Hope as a psychological resilience factor in mothers and fathers of children with intellectual disabilities. *Journal of Intellectual Disability Research, 53*, 957–968. doi:10.1111/j.1365-2788.2009.01206.x

Lu, F. J. H., & Hsu, Y. W. (2013). Injured athletes' rehabilitation beliefs and subjective well-being: The contribution of hope and social support. *Journal of Athletic Training, 48*, 92–98. doi:10.4085/1062-6050-48.1.03

Luthar, S. S. (1999). *Poverty and children's adjustment*: Thousand Oaks, CA: SAGE.

Luthar, S. S. (2006). Resilience in development: A synthesis of research across five decades. In D. J. Cohen & D. Cicchetti (Eds.), *Developmental psychopathology: Risk, disorder, and adaptation* (pp. 739–795). Hoboken, NJ: Wiley.

Luthar, S. S., & Brown, P. J. (2007). Maximizing resilience through diverse levels of inquiry: Prevailing paradigms, possibilities, and priorities for the future. *Development and Psychopathology, 19*, 931–955.

Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development, 71*, 543–562.

Luthar, S. S., & Cushing, G. (1999). Neighborhood influences and child development: A prospective study of substance abusers' offspring. *Development and Psychopathology, 11*, 763–784.

Luthar, S. S., & Zelazo, L. B. (2003). Research on resilience: An integrative review. In S. S. Luthar (Ed.), *Resilience and vulnerability: Adaptation in the context of childhood adversities* (pp. 510–549). New York: Cambridge University Press.

Magaletta, P. R., & Oliver, J. M. (1999). The hope construct, will, and ways: Their relations with self-efficacy, optimism, and general well-being. *Journal of Clinical Psychology, 55*, 539–551.

Martin, K., & Stermac, L. (2010). Measuring hope: Is hope related to criminal behaviour in offenders? *International Journal of Offender Therapy and Comparative Criminology, 54*, 693–705. doi:10.1177/0306624x09336131

Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist, 56*, 227–238.

Hope and Stress Resilience

- Masten, A. S., Best, K. M., & Garmezy, N. (1990). Resilience and development: Contributions from the study of children who overcome adversity. *Development and Psychopathology*, *2*, 425-444.
- Masten, A. S., & Coatsworth, J. (1998). The development of competence in favorable and unfavorable environments: Lessons from research on successful children. *American Psychologist*, *53*, 205-220.
- Masten, A. S., & O'Connor, M. J. (1989). Vulnerability, stress, and resilience in the early development of a high risk child. *Journal of the American Academy of Child and Adolescent Psychiatry*, *28*, 274-278.
- Masten, A. S., & Wright, M. O. D. (1998). Cumulative risk and protection models of child maltreatment. *Journal of Aggression, Maltreatment and Trauma*, *2*, 7-30.
- Mathew, J., Dunning, C., Coats, C., & Whelan, T. (2014). The mediating influence of hope on multidimensional perfectionism and depression. *Personality and Individual Differences*, *70*, 66-71. doi:10.1016/j.paid.2014.06.008
- Mednick, L., Cogen, F., Henderson, C., Rohrbeck, C. A., Kiteessa, D., & Streisand, R. (2007). Hope more, worry less: Hope as a potential resilience factor in mothers of very young children with type 1 diabetes. *Children's Health Care*, *36*, 385-396.
- Michael, S. T., & Snyder, C. R. (2005). Getting unstuck: The roles of hope, finding meaning, and rumination in the adjustment to bereavement among college students. *Death Studies*, *29*, 435-458. doi:10.1080/07481180590932544
- Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *Annals of Internal Medicine*, *151*, 264-269.
- Ng, E. C. W., Chan, C. C., & Lai, M. K. (2014). Hope and life satisfaction among underprivileged children in Hong Kong: The mediating role of perceived community support. *Journal of Community Psychology*, *42*, 352-364. doi:10.1002/jcop.21614
- O'Keefe, V. M., & Wingate, L. R. (2013). The role of hope and optimism in suicide risk for American Indians/Alaska Natives. *Suicide and Life-Threatening Behavior*, *43*, 621-633. doi:10.1111/sltb.12044
- (p. 283) Ong, A. D., Edwards, L. M., & Bergeman, C. (2006). Hope as a source of resilience in later adulthood. *Personality and Individual Differences*, *41*, 1263-1273. doi:10.1016/j.paid.2006.03.028
- Padilla-Walker, L. M., Hardy, S. A., & Christensen, K. J. (2011). Adolescent hope as a mediator between parent-child connectedness and adolescent outcomes. *Journal of Early Adolescence*, *31*, 853-879. doi:10.1177/0272431610376249

Hope and Stress Resilience

Parenteau, S. C., Gallant, S., Sarosiek, I., & McCallum, R. W. (2006). The role of hope in the psychological adjustment of gastropareptic patients receiving the gastric pacemaker: A longitudinal study. *Journal of Clinical Psychology in Medical Settings, 13*, 49–56. doi: 10.1007/s10880-005-9005-4

Project EPHP. (2009). Quality assessment tool for quantitative studies. Retrieved from <http://www.ephp.ca/tools.html>

Rajandram, R. K., Ho, S. M., Samman, N., Chan, N., McGrath, C., & Zwahlen, R. A. (2011). Interaction of hope and optimism with anxiety and depression in a specific group of cancer survivors: a preliminary study. *BMC Research Notes, 4*, 519. doi: 10.1186/1756-0500-4-519

Rawdin, B., Evans, C., & Rabow, M. W. (2013). The relationships among hope, pain, psychological distress, and spiritual well-being in oncology outpatients. *Journal of Palliative Medicine, 16*, 167–172. doi:10.1089/jpm.2012.0223

Reff, R. C., Kwon, P., & Campbell, D. G. (2005). Dysphoric responses to a naturalistic stressor: Interactive effects of hope and defense style. *Journal of Social and Clinical Psychology, 24*, 638–648. doi:10.1521/jscp.2005.24.5.638

Richman, L. S., Kubzansky, L., Maselko, J., Kawachi, I., Choo, P., & Bauer, M. (2005). Positive emotion and health: Going beyond the negative. *Health Psychology, 24*, 422–429. doi:10.1037/0278-6133.24.4.422

Rock, E. E., Steiner, J. L., Rand, K. L., & Bigatti, S. M. (2014). Dyadic influence of hope and optimism on patient marital satisfaction among couples with advanced breast cancer. *Supportive Care in Cancer, 22*, 2351–2359. doi:10.1007/s00520-014-2209-0

Roesch, S. C., Duangado, K. M., Vaughn, A. A., Aldridge, A. A., & Villodas, F. (2010). Dispositional hope and the propensity to cope: A daily diary assessment of minority adolescents. *Cultural Diversity & Ethnic Minority Psychology, 16*, 191–198. doi:10.1037/a0016114

Rowe, J. W., & Kahn, R. L. (1987). Human aging: Usual and successful. *Science, 237*, 143–149.

Rustoen, T., Cooper, B. A., & Miaskowski, C. (2011). A longitudinal study of the effects of a hope intervention on levels of hope and psychological distress in a community-based sample of oncology patients. *European Journal of Oncology Nursing, 15*, 351–357. doi: 10.1016/j.ejon.2010.09.001

Rutter, M. (1987). Psychosocial resilience and protective mechanisms. *American Journal of Orthopsychiatry, 57*, 316–331.

Hope and Stress Resilience

Rutter, M. (2000). Resilience reconsidered: Conceptual considerations, empirical findings, and policy implications. In S. J. Meisels & J. P. Shonkoff (Eds.), *Handbook of early childhood intervention* (2nd ed., pp. 651–682). New York: Cambridge University Press.

Ryff, C. D., & Heidrich, S. M. (1997). Experience and well-being: Explorations on domains of life and how they matter. *International Journal of Behavioral Development, 20*, 193–206.

Ryff, C. D., & Singer, B. (2000). Interpersonal flourishing: A positive health agenda for the new millennium. *Personality and Social Psychology Review, 4*, 30–44.

Ryff, C. D., & Singer, B. (2003). Flourishing under fire: Resilience as a prototype of challenged thriving. In J. Haidt & C. L. M. Keyes (Eds.), *Flourishing: Positive psychology and the life well lived* (pp. 15–36). Washington, DC: American Psychological Association.

Ryff, C. D., Singer, B., Love, G. D., & Essex, M. J. (1998). Resilience in adulthood and later life: Defining features and dynamic processes. In J. Lomranz (Ed.), *Handbook of aging and mental health: An integrative approach* (pp. 69–96). New York: Plenum Press.

Sameroff, A., Gutman, L. M., & Peck, S. C. (2003). Adaptation among youth facing multiple risks: Prospective research findings. In S. S. Luthar (Ed.), *Resilience and vulnerability: Adaptation in the context of childhood adversities* (pp. 364–391). New York: Cambridge University Press.

Santos, F. R. M., Sigulem, D., Areco, K. C. N., Gabbay, M. A. L., Dib, S. A., & Bernardo, V. (2015). Hope matters to the glycemic control of adolescents and young adults with type 1 diabetes. *Journal of Health Psychology, 20*, 681–689. doi:10.1177/1359105315573429

Savahl, S., Isaacs, S., Adams, S., Carels, C. Z., & September, R. (2013). An exploration into the impact of exposure to community violence and hope on children's perceptions of well-being: A South African perspective. *Child Indicators Research, 6*, 579–592. doi: 10.1007/s12187-013-9183-9

Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: Assessment and implications of generalized outcome expectancies. *Health Psychology, 4*, 219–247.

Schulz, R., & Heckhausen, J. (1996). A life span model of successful aging. *American Psychologist, 51*, 702–714.

Schwartz, C., & Hadar, L. (2007). Parents caring for adult children with physical disabilities: The impact of hope and closeness on caregiving benefits. *Families in Society: The Journal of Contemporary Social Services, 88*, 273–281. doi:10.1606/1044-3894.3625

Scioli, A., MacNeil, S., Partridge, V., Tinker, E., & Hawkins, E. (2012). Hope, HIV and health: A prospective study. *Aids Care, 24*, 149–156. doi:10.1080/09540121.2011.597943

Hope and Stress Resilience

Shiri, S., Wexler, I. D., Feintuch, U., Meiner, Z., & Schwartz, I. (2012). Post-polio syndrome: Impact of hope on quality of life. *Disability and Rehabilitation, 34*, 824–830. doi:10.3109/09638288.2011.623755

Shorey, H. S., Snyder, C. R., Yang, X. D., & Lewin, M. R. (2003). The role of hope as a mediator in recollected parenting, adult attachment, and mental health. *Journal of Social and Clinical Psychology, 22*, 685–715. doi:10.1521/jscp.22.6.685.22938

Singer, B., & Ryff, C. D. (1999). Hierarchies of life histories and associated health risks. In M. Marmot & N. E. Adler (Eds.), *Socioeconomic status and health in industrial nations: Social, psychological, and biological pathways* (pp. 96–115). New York: New York Academy of Sciences.

Sjoquist, K. M., Friedlander, M. L., O'Connell, R. L., Voysey, M., King, M. T., Stockler, M. R., . . . Butow, P. N. (2013). Hope, quality of life, and benefit from treatment in women having chemotherapy for platinum-resistant/refractory recurrent ovarian cancer: The Gynecologic Cancer Intergroup Symptom Benefit Study. *Oncologist, 18*, 1221–1228. doi:10.1634/theoncologist.2013-0175

Smedema, S. M., Chan, J. Y., & Phillips, B. N. (2014). Core self-evaluations and snyder's hope theory in persons with spinal cord injuries. *Rehabilitation Psychology, 59*, 399–406. doi:10.1037/rep0000015

(p. 284) Smider, N. A., Essex, M. J., & Ryff, C. D. (1996). Adaptation of community relocation: The interactive influence of psychological resources and contextual factors. *Psychology and Aging, 11*, 362–372.

Snyder, C. R. (1994). *The psychology of hope: You can get there from here*. New York: Free Press.

Snyder, C. R. (2000). The past and possible futures of hope. *Journal of Social and Clinical Psychology, 19*, 11–28. doi:10.1521/jscp.2000.19.1.11

Snyder, C. R. (2002). Hope theory: Rainbows in the mind. *Psychological Inquiry, 13*, 249–275. doi:10.1207/s15327965pli1304_01

Snyder, C. R., Berg, C., Woodward, J. T., Gum, A., Rand, K. L., Wroblewski, K. K., . . . Hackman, A. (2005). Hope against the cold: Individual differences in trait hope and acute pain tolerance on the cold pressor task. *Journal of Personality, 73*, 287–312. doi:10.1111/j.1467-6494.2005.00318.x

Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., . . . Harney, P. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology, 60*, 570–585.

Hope and Stress Resilience

Snyder, C. R., Irving, L., & Anderson, J. R. (1991). Hope and health: Measuring the will and the ways. In C. R. Snyder & D. R. Forsyth (Eds.), *Handbook of social and clinical psychology: The health perspective* (pp. 285–305). Elmsford, NY: Pergamon.

Snyder, C. R., Shorey, H. S., Cheavens, J., Pulvers, K. M., Adams, V. H., & Wiklund, C. (2002). Hope and academic success in college. *Journal of Educational Psychology, 94*, 820–826. doi:10.1037//0022-0663.94.4.820

Snyder, C. R., Sympson, S. C., Ybasco, F. C., Borders, T. F., Babyak, M. A., & Higgins, R. L. (1996). Development and validation of the State Hope Scale. *Journal of Personality and Social Psychology, 70*, 321–335.

Staudinger, U. M., Marsiske, M., & Baltes, P. B. (1993). Resilience and levels of reserve capacity in later adulthood: Perspectives from life-span theory. *Development and Psychopathology, 5*, 541–566. doi:10.1017/S0954579400006155

Staudinger, U. M., Marsiske, M., & Baltes, P. B. (1995). Resilience and reserve capacity in later adulthood: Potentials and limits of development across the life span. In D. J. Cohen & D. Cicchetti (Eds.), *Developmental psychopathology: Risk, disorder, and adaptation* (Vol. 2, pp. 801–847). Oxford: Wiley.

Steffen, L. E., & Smith, B. W. (2013). The influence of between and within-person hope among emergency responders on daily affect in a stress and coping model. *Journal of Research in Personality, 47*, 738–747. doi:10.1016/j.jrp.2013.06.008

Stern, J. M., & Simes, R. J. (1997). Publication bias: Evidence of delayed publication in a cohort study of clinical research projects. *BMJ, 315*, 640–645.

Stoddard, S. A., McMorris, B. J., & Sieving, R. E. (2011). Do social connections and hope matter in predicting early adolescent violence? *American Journal of Community Psychology, 48*, 247–256.

Strom, T. Q., & Kosciulek, J. (2007). Stress, appraisal and coping following mild traumatic brain injury. *Brain Injury, 21*, 1137–1145. doi:10.1080/02699050701687334

Sun, H., Tan, Q., Fan, G., & Tsui, Q. (2014). Different effects of rumination on depression: Key role of hope. *International Journal of Mental Health Systems, 8*, 1–5. doi:10.1186/1752-4458-8-53

Thio, I. M., & Elliott, T. R. (2005). Hope, social support, and postpartum depression: Disentangling the mediating effects of negative affectivity. *Journal of Clinical Psychology in Medical Settings, 12*, 293–299. doi:10.1007/s10880-005-7814-0

Thomas, B. H., Ciliska, D., Dobbins, M., & Micucci, S. (2004). A process for systematically reviewing the literature: Providing the research evidence for public health nursing interventions. *Worldviews on Evidence-Based Nursing, 1*, 176–184.

Hope and Stress Resilience

- Truitt, M., Biesecker, B., Capone, G., Bailey, T., & Erby, L. (2012). The role of hope in adaptation to uncertainty: The experience of caregivers of children with Down syndrome. *Patient Education and Counseling, 87*, 233–238. doi:10.1016/j.pec.2011.08.015
- Tweed, S. H., & Ryff, C. D. (1991). Adult children of alcoholics: Profiles of wellness amidst distress. *Journal of Studies on Alcohol, 52*, 133–141.
- Unwin, J., Kacperek, L., & Clarke, C. (2009). A prospective study of positive adjustment to lower limb amputation. *Clinical Rehabilitation, 23*, 1044–1050. doi:10.1177/0269215509339001
- Valle, M. F., Huebner, E. S., & Suldo, S. M. (2006). An analysis of hope as a psychological strength. *Journal of School Psychology, 44*, 393–406. doi:10.1016/j.jsp.2006.03.005
- Van Allen, J., & Steele, R. G. (2012). Associations between change in hope and change in physical activity in a pediatric weight management program. *Childrens Health Care, 41*, 344–359. doi:10.1080/02739615.2012.721724
- Visser, P. L., Loess, P., Jeglic, E. L., & Hirsch, J. K. (2013). Hope as a moderator of negative life events and depressive symptoms in a diverse sample. *Stress and Health, 29*, 82–88. doi:10.1002/smi.2433
- Werner, E. E., & Smith, R. (1982). *Vulnerable but invincible: A study of resilient children*. New York: McGraw-Hill.
- Werner, E. E., & Smith, R. S. (1992). *Overcoming the odds: High risk children from birth to adulthood*. Ithaca, NY: Cornell University Press.
- Wheeler, A. C., Skinner, D. G., & Bailey, D. B. (2008). Perceived quality of life in mothers of children with fragile X syndrome. *American Journal on Mental Retardation, 113*, 159–177. doi:10.1352/0895-8017(2008)113[159:pqolim]2.0.co;2
- Woods, K., Mayes, S., Bartley, E., Fedele, D., & Ryan, J. (2013). An evaluation of psychosocial outcomes for children and adolescents attending a summer camp for youth with chronic illness. *Childrens Health Care, 42*, 85–98. doi:10.1080/02739615.2013.753822
- Wright, M. A., Wren, A. A., Somers, T. J., Goetz, M. C., Fras, A. M., Huh, B. K., . . . Keefe, F. J. (2011). Pain acceptance, hope, and optimism: Relationships to pain and adjustment in patients with chronic musculoskeletal pain. *Journal of Pain, 12*, 1155–1162. doi:10.1016/j.jpain.2011.06.002
- Wroblewski, K. K., & Snyder, C. R. (2005). Hopeful thinking in older adults: Back to the future. *Experimental Aging Research, 31*, 217–233. doi:10.1080/03610730590915452

Hope and Stress Resilience

Wu, H. C. (2011). The protective effects of resilience and hope on quality of life of the families coping with the criminal traumatising of one of its members. *Journal of Clinical Nursing, 20*, 1906–1915. doi:10.1111/j.1365-2702.2010.03664.x

Yuen, A. N. Y., Ho, S. M. Y., & Chan, C. K. Y. (2014). The mediating roles of cancer-related rumination in the relationship between dispositional hope and psychological outcomes among childhood cancer survivors. *Psycho-Oncology, 23*, 412–419. doi:10.1002/pon.3433

Zhang, A., Cui, L. J., Iyer, A., Jetten, J., & Hao, Z. (2014). When reality bites: Hopeful thinking mediates the discrimination-life satisfaction relationship. *Analyses of Social Issues and Public Policy, 14*, 379–393. doi:10.1111/asap.12034

Anthony D. Ong

Anthony D. Ong Department of Human Development Cornell University Ithaca, NY

Taylor Standiford

Taylor Standiford, Department of Human Development, Cornell University, Ithaca, NY

Saarang Deshpande

Saarang Deshpande, Department of Science and Technology Studies, Cornell University, Ithaca, NY

