



Resilience Bibliography*

FAMILY

Understanding family resilience. Patterson JM., 2002. *J Clin Psychol*, 58(3):233-46.

Families, as social systems, can be considered "resilient" in ways that parallel descriptions of individual resilience. In this article, the conceptualization of family-level outcomes as a prerequisite for assessing family competence, and hence their resilience, is presented relative to the unique functions that families perform for their members and for society. The risk and protective processes that give rise to resilience in families are discussed in terms of family stress and coping theory, with a particular emphasis on the family's subjective appraisal of their sources of stress and their ability to manage them. An effort is made to distinguish two perspectives on resilience: exposure to significant risk as a prerequisite for being considered resilient versus promotion of strengths for all families in which life in general is viewed as risky. Implications for practitioners and policy makers in working with families to promote their resilience are discussed.

GENERAL

Cognitive transformation as a marker of resilience. Tebes JK, Irish JT, Puglisi Vasquez MJ, Perkins DV., 2004, *Substance Use and Misuse*, 39(5):769-88.

Individuals often report positive, transformative changes in response to adversity. Cognitive transformation involves a turning point in a person's life characterized by: (1) the recognition that coping with adversity resulted in new opportunities; and, (2) the reevaluation of the experience from one that was primarily traumatic or threatening to one that is growth-promoting. Cognitive transformation often signifies enhanced adaptation to adverse circumstances, and thus, is a marker of resilience. The present study examined the relationship of cognitive transformation to indicators of resilience among 35 acutely bereaved young adults and a nonbereaved comparison group. Findings strongly supported the hypothesis that transformation predicts resilience, and may reduce one's risk trajectory to enhance adaptation. Results are discussed in terms of their implications for research on resilience, and on recovery from acute or chronic adverse circumstances, including addiction.

Ordinary magic. Resilience processes in development. Masten AS., 2001. *Am Psychol*, 56(3):227-38.

The study of resilience in development has overturned many negative assumptions and deficit-focused models about children growing up under the threat of disadvantage and adversity. The most surprising conclusion emerging from studies of these children is the ordinariness of resilience. An examination of converging findings from variable-focused and person-focused investigations of these phenomena suggests that resilience is common and that it usually arises

from the normative functions of human adaptational systems, with the greatest threats to human development being those that compromise these protective systems. The conclusion that resilience is made of ordinary rather than extraordinary processes offers a more positive outlook on human development and adaptation, as well as direction for policy and practice aimed at enhancing the development of children at risk for problems and psychopathology.

Positive adaptation to trauma: wisdom as both process and outcome. Linley PA., 2003. *J Trauma Stress*, 16(6):601-10.

Positive adaptation to psychological trauma and wisdom both have a rich history in European literature and philosophy. Although the literature on posttraumatic growth has recognized the possibility of wisdom as an outcome of adaptation, its role in the process of adaptation has been neglected. A theoretical framework is presented that conceptualizes three dimensions of wisdom as crucial to an understanding of the role it can play in posttraumatic positive adaptation. These dimensions are the recognition and management of uncertainty; the integration of affect and cognition; and the recognition and acceptance of human limitation. The role of these dimensions in the process and outcome of traumatic adaptation is considered, together with limitations of the framework and directions for future research.

Positive change following trauma and adversity: a review. Linley PA, Joseph S., 2004. *J Trauma Stress*, 17(1):11-21.

Empirical studies (n = 39) that documented positive change following trauma and adversity (e.g., posttraumatic growth, stress-related growth, perceived benefit, thriving; collectively described as adversarial growth) were reviewed. The review indicated that cognitive appraisal variables (threat, harm, and controllability), problem-focused, acceptance and positive reinterpretation coping, optimism, religion, cognitive processing, and positive affect were consistently associated with adversarial growth. The review revealed inconsistent associations between adversarial growth, sociodemographic variables (gender, age, education, and income), and psychological distress variables (e.g., depression, anxiety, posttraumatic stress disorder). However, the evidence showed that people who reported and maintained adversarial growth over time were less distressed subsequently. Methodological limitations and recommended future directions in adversarial growth research are discussed, and the implications of adversarial growth for clinical practice are briefly considered.

Possibilities of the positive following violence and trauma: informing the coming decade of research. Ai AL, Park CL., 2005. *J Interpers Violence*, 20(2):242-50.

The effects of trauma and violence may be better understood by taking a broader perspective that includes resilience and recovery as well as damage and symptomatology. Based on this broader view, this article describes three interrelated, cutting-edge trends in mental health research: (a) the positive psychology movement, (b) the recognition of the role of spirituality and religion in health and well-being, and (c) stress-related growth. The integration of these trends into mainstream studies of trauma and violence will provide a counterbalance to the predominant orientation of victimization and pathology currently evidenced in the literature. All three have important implications for survivors of violence and trauma.

INTERVENTION

Determining the efficacy of resiliency training in the work site. Waite PJ, Richardson GE., 2004. *J Allied Health*. 33(3):178-83.

Resilience and resiliency training, an approach that encompasses the complementary and alternative medicine movement, seems to be an important concept and philosophy that can be embraced by allied health professionals. The purpose of this study was to determine the efficacy of a worksite resiliency training program (personal resilience and resilient relationships [PRRR]) by evaluating its impact on innate resilience/reintegration, selected resilient qualities (self-esteem, locus of control, purpose in life, and interpersonal relations), and job satisfaction. The experimental group received the PRRR training, and the control group did not receive any training. The PRRR training comprised five 8-hour training modules. The study was implemented at a large government organization's facility in Northern Utah. A total of 232 participants were assigned randomly by work unit into the PRRR training group (n = 123) and the control group (n = 109); 150 participants (73 in the experimental and 77 in the control group) were present at all three data collections and were eligible for analysis. Significant and positive change occurred in the experimental group, based on combined survey data, with regard to five of the six variables, with job satisfaction being the only variable not showing positive change in this group. The control group saw no positive effects. The results of the study support the efficacy of the PRRR training as implemented in the work site.

How Can Young People's Resilience be Enhanced? Experiences from a Clinical Intervention Project. Trine Waaktaar et al., 2004. *Clinical Child Psychology and Psychiatry*, Vol. 9, No. 2, 167-183.

The aim of this project was to explore how resilience factors could be utilized in a clinical intervention for young people with stressful background experiences. Four resilience factors constituted the basis for the intervention: positive peer relations, self-efficacy, creativity, and coherence. Four main therapeutic principles were derived and elaborated with technical operationalizations: (i) focus on group work with same-age peers, and foster prosocial, supportive and accepting interactions; (ii) organize group work around activities the participants are motivated to learn more about, and assist them in reaching specified group and individual goals; (iii) facilitate playful exploration and individual symbolic expression within the chosen activity; and (iv) encourage and assist participants' attempts to make meaningful and beneficial connections between different aspects of their past, present and future lives. Nine groups underwent the intervention. As the case illustration shows, this approach gave inspiration to thinking and practice that was perceived as clinically meaningful. However, more knowledge of the interplay between positive and negative chain reactions is needed to develop adequate interventions.

Loss, trauma, and human resilience: have we underestimated the human capacity to thrive after extremely aversive events? Bonanno GA., 2004. *Am Psychol*, 59(1):20-8.

Many people are exposed to loss or potentially traumatic events at some point in their lives, and yet they continue to have positive emotional experiences and show only minor and transient disruptions in their ability to function. Unfortunately, because much of psychology's knowledge about how adults cope with loss or trauma has come from individuals who sought treatment or exhibited great distress, loss and trauma theorists have often viewed this type of resilience as either rare or pathological. The author challenges these assumptions by reviewing evidence that

resilience represents a distinct trajectory from the process of recovery, that resilience in the face of loss or potential trauma is more common than is often believed, and that there are multiple and sometimes unexpected pathways to resilience.

Mental health promotion through resilience and resiliency education. Richardson GE, Waite PJ., 2002. *Int J Emerg Ment Health*, 4(1):65-75.

The article provides a brief review of the metatheory of resilience and resiliency, a description of a resiliency training program, and also a summary of results of a resiliency training program. Resilience in this paper is a self-righting force within everyone that drives him/her to pursue self actualization, altruism, wisdom, and harmony with a spiritual source of strength. The resiliency process is the experience of being disrupted by change, opportunities, adversity, stressors or challenges and, after some disorder, accessing personal gifts and strengths to grow stronger through the disruption. The resiliency training program is presented as a five-day progressive program that provides experiences for participants to enhance personal resilience and to pursue resilient relationships. Research previously conducted in a large government organization showed immediate and posttest improvements in resilience, locus of control, purpose in life, self-esteem, interpersonal relationships, and job satisfaction.

MEASURES

A new rating scale for adult resilience: what are the central protective resources behind healthy adjustment? Oddgeir Friborg, Odina Hjemdal, Jan H. Rosenvinge, Monica Martinussen. *International Journal of Methods Psychiatric Research*, 2003;12(2):65-76.

Resources that protect against the development of psychiatric disturbances are reported to be a significant force behind healthy adjustment to life stresses, rather than the absence of risk factors. In this paper a new scale for measuring the presence of protective resources that promote adult resilience is validated. The preliminary version of the scale consisted of 45 items covering five dimensions: personal competence, social competence, family coherence, social support and personal structure. The Resilience Scale for Adults (RSA), the Sense of Coherence scale (SOC) and the Hopkins Symptom Checklist (HSCL) were given to 59 patients once, and to 276 normal controls twice, separated by four months. The factor structure was replicated. The respective dimensions had Cronbach's alphas of 0.90, 0.83, 0.87, 0.83 and 0.67, and four-month test-retest correlations of 0.79, 0.84, 0.77, 0.69 and 0.74. Construct validity was supported by positive correlations with SOC and negative correlations with HSCL. The RSA differentiated between patients and healthy control subjects. Discriminant validity was indicated by differential positive correlations between RSA subscales and SOC. The RSA-scale might be used as a valid and reliable measurement in health and clinical psychology to assess the presence of protective factors important to regain and maintain mental health.

Construct validity of the Adolescent Resilience Scale. Oshio A, Kaneko H, Nagamine S, Nakaya M., 2003. *Psychol Rep.* 93(3 Pt 2):1217-22.

The aim of this study was to assess the construct validity of the Adolescent Resilience Scale which measures the psychological features of resilient individuals. Research involving this scale, the Negative Life Events Scale, and the General Health Questionnaire was conducted with a group of 207 Japanese undergraduate students (104 men and 103 women; M age=20.2 yr., SD=.9). A cluster analysis for the Negative Life Events Scale and General Health Questionnaire yielded three clusters: (1) mentally healthy with little experience of Negative Life Events, (2) poorer mental health with many experiences of Negative Life Events, (3) mentally

healthy despite many experiences of Negative Life Events. These three groups were defined as (1) Well Adjusted, (2) Vulnerable, and (3) Resilient, respectively. Mean differences in scores on the Adolescent Resilience Scale among the three groups were subjected to one-way analysis of variance. The mean scores of both the Well Adjusted and Resilient groups were higher than that of the Vulnerable group, and therefore support the construct validity of the Adolescent Resilience Scale.

Development of a new resilience scale: the Connor-Davidson Resilience Scale (CD-RISC).

Connor KM, Davidson JR., 2003. *Depress Anxiety*18(2):76-82.

Resilience may be viewed as a measure of stress coping ability and, as such, could be an important target of treatment in anxiety, depression, and stress reactions. We describe a new rating scale to assess resilience. The Connor-Davidson Resilience scale (CD-RISC) comprises of 25 items, each rated on a 5-point scale (0-4), with higher scores reflecting greater resilience. The scale was administered to subjects in the following groups: community sample, primary care outpatients, general psychiatric outpatients, clinical trial of generalized anxiety disorder, and two clinical trials of PTSD. The reliability, validity, and factor analytic structure of the scale were evaluated, and reference scores for study samples were calculated. Sensitivity to treatment effects was examined in subjects from the PTSD clinical trials. The scale demonstrated good psychometric properties and factor analysis yielded five factors. A repeated measures ANOVA showed that an increase in CD-RISC score was associated with greater improvement during treatment. Improvement in CD-RISC score was noted in proportion to overall clinical global improvement, with greatest increase noted in subjects with the highest global improvement and deterioration in CD-RISC score in those with minimal or no global improvement. The CD-RISC has sound psychometric properties and distinguishes between those with greater and lesser resilience. The scale demonstrates that resilience is modifiable and can improve with treatment, with greater improvement corresponding to higher levels of global improvement. Copyright 2003 Wiley-Liss, Inc.

POSITIVE EMOTIONS

The future of optimism. Peterson, C., 2000. *Am Psychol.* 55 (1):44-55.

Recent theoretical discussions of optimism as an inherent aspect of human nature converge with empirical investigations of optimism as an individual difference to show that optimism can be a highly beneficial psychological characteristic linked to good mood, perseverance, achievement, and physical health. Questions remain about optimism as a research topic and more generally as a societal value. Is the meaning of optimism richer than its current conceptualization in cognitive terms? Are optimism and pessimism mutually exclusive? What is the relationship between optimism and reality, and what are the costs of optimistic beliefs that prove to be wrong? How can optimism be cultivated? How does optimism play itself out across different cultures? Optimism promises to be one of the important topics of interest to positive social science, as long as it is approached in an even-handed way.

Optimism is associated with mood, coping, and immune change in response to stress.

Seegerstrom SC, Taylor SE, Kemeny ME, Fahey JL., 1998. *J Pers Soc Psychol.* 74 (6):1646-55.

This study explored prospectively the effects of dispositional and situational optimism on mood (N = 90) and immune changes (N = 50) among law students in their first semester of study. Optimism was associated with better mood, higher numbers of helper T cells, and higher natural killer cell cytotoxicity. Avoidance coping partially accounted for the relationship between

optimism and mood. Among the immune parameters, mood partially accounted for the optimism-helper T cell relationship, and perceived stress partially accounted for the optimism-cytotoxicity relationship. Individual differences in expectancies, appraisal, and mood may be important in understanding psychological and immune responses to stress.

Positive emotions trigger upward spirals toward emotional well-being. Fredrickson BL, Joiner T., 2002. *Psychol Sci.* 13(2):172-5.

The broaden-and-build theory of positive emotions predicts that positive emotions broaden the scopes of attention and cognition, and, by consequence, initiate upward spirals toward increasing emotional well-being. The present study assessed this prediction by testing whether positive affect and broad-minded coping reciprocally and prospectively predict one another. One hundred thirty-eight college students completed self-report measures of affect and coping at two assessment periods 5 weeks apart. As hypothesized, regression analyses showed that initial positive affect, but not negative affect, predicted improved broad-minded coping, and initial broad-minded coping predicted increased positive affect, but not reductions in negative affect. Further mediational analyses showed that positive affect and broad-minded coping serially enhanced one another. These findings provide prospective evidence to support the prediction that positive emotions initiate upward spirals toward enhanced emotional wellbeing. Implications for clinical practice and health promotion are discussed.

Psychological resilience and positive emotional granularity: examining the benefits of positive emotions on coping and health. Tugade MM, Fredrickson BL, Barrett LF., 2004. *J Pers.* 72(6):1161-90.

For centuries, folk theory has promoted the idea that positive emotions are good for your health. Accumulating empirical evidence is providing support for this anecdotal wisdom. We use the broaden-and-build theory of positive emotions (Fredrickson, 1998; 2001) as a framework to demonstrate that positive emotions contribute to psychological and physical well-being via more effective coping. We argue that the health benefits advanced by positive emotions may be instantiated in certain traits that are characterized by the experience of positive emotion. Towards this end, we examine individual differences in psychological resilience (the ability to bounce back from negative events by using positive emotions to cope) and positive emotional granularity (the tendency to represent experiences of positive emotion with precision and specificity). Individual differences in these traits are examined in two studies, one using psychophysiological evidence, the second using evidence from experience sampling, to demonstrate that positive emotions play a crucial role in enhancing coping resources in the face of negative events. Implications for research on coping and health are discussed.

Resilient individuals use positive emotions to bounce back from negative emotional experiences. Tugade MM, Fredrickson BL., 2004. *J Pers Soc Psychol*, 86(2):320-33.

Theory indicates that resilient individuals "bounce back" from stressful experiences quickly and effectively. Few studies, however, have provided empirical evidence for this theory. The broaden-and-build theory of positive emotions (B. L. Fredrickson, 1998, 2001) is used as a framework for understanding psychological resilience. The authors used a multimethod approach in 3 studies to predict that resilient people use positive emotions to rebound from, and find positive meaning in, stressful encounters. Mediational analyses revealed that the experience of positive emotions contributed, in part, to participants' abilities to achieve efficient emotion regulation, demonstrated by accelerated cardiovascular recovery from negative

emotional arousal (Studies 1 and 2) and by finding positive meaning in negative circumstances (Study 3). Implications for research on resilience and positive emotions are discussed.

The role of daily positive emotions during conjugal bereavement. Ong AD, Bergeman CS, Bisconti TL., 2004. *J Gerontol B Psychol Sci Soc Sci*, 59(4):P168-76.

The role of daily positive emotions in the stress process was examined in a sample of 34 recently bereaved older adult widows. Humor coping and perceived stress were measured in questionnaires, and positive emotions, depression, anxiety, and stress were assessed daily for 98 days. Results highlight the critical role of daily positive emotions in the months immediately following conjugal loss. Intraindividual analyses revealed significant reductions in the magnitude of the stress-depression correlation on days in which greater positive emotions were present. Results also suggest that different vulnerability and resilience factors are implicated in the emotion differentiation process. For widows with greater humor coping skills, there was less overlap in daily ratings of positive emotions and depressive symptoms. In contrast, higher levels of chronic stress resulted in less differentiation of emotional responses.

What good are positive emotions in crises? A prospective study of resilience and emotions following the terrorist attacks on the United States on September 11th, 2001. Fredrickson BL, Tugade MM, Waugh CE, Larkin GR., 2003. *J Pers Soc Psychol*. 84(2):365-76.

Extrapolating from B. L. Fredrickson's (1998, 2001) broaden-and-build theory of positive emotions, the authors hypothesized that positive emotions are active ingredients within trait resilience. U.S. college students (18 men and 28 women) were tested in early 2001 and again in the weeks following the September 11th terrorist attacks. Mediation analyses showed that positive emotions experienced in the wake of the attacks--gratitude, interest, love, and so forth--fully accounted for the relations between (a) precrisis resilience and later development of depressive symptoms and (b) precrisis resilience and postcrisis growth in psychological resources. Findings suggest that positive emotions in the aftermath of crises buffer resilient people against depression and fuel thriving, consistent with the broaden-and-build theory. Discussion touches on implications for coping.

Posttraumatic Stress Disorder

Risk and resilience in posttraumatic stress disorder. Yehuda R., 2004. *J Clin Psychiatry*, Suppl 1:29-36.

Posttraumatic stress disorder (PTSD) is a fairly common psychiatric disorder that is associated with a lifetime prevalence of approximately 9% in the United States. In light of recent war and terrorist activity worldwide, it is likely that increased numbers of individuals will be exposed to severe or life-threatening trauma, and the incidence of PTSD may be even higher than previously indicated in epidemiologic studies. PTSD may develop after exposure to a traumatic event in which the individual experienced, witnessed, or was confronted by either actual or threatened loss of life or serious injury. Patients with PTSD often reexperience intrusive recollections of the event in ways that are highly distressing and may be described as reliving the memory. Not surprisingly, symptoms of avoidance are noted because individuals with PTSD often wish to escape recollections (thoughts, feelings, conversations, places) related to the trauma. Patients also experience symptoms of hyperarousal associated with difficulty concentrating or exaggerated startle response. Notably, individuals who develop PTSD represent only a subset of those exposed to trauma. It is of interest why certain individuals are at risk for development of PTSD after traumatic exposure, whereas others appear to be more

resilient to the effects of trauma. Studies suggest that previous exposure to trauma and intensity of the response to acute trauma may affect the development of PTSD. In addition, however, neuroendocrine changes, such as lower cortisol levels, also may influence formation and processing of traumatic memories and may be associated with the underlying pathology of PTSD.

Spirituality, resilience, and anger in survivors of violent trauma: a community survey. Connor KM, Davidson JR, Lee LC., 2003. *J Trauma Stress*, 16(5):487-94.

This study evaluates the relationship between spirituality, resilience, anger and health status, and posttraumatic symptom severity in trauma survivors. A community sample (N = 1,200) completed an online survey that included measures of resilience, spirituality (general beliefs and reincarnation), anger, forgiveness, and hatred. In survivors of violent trauma (n = 648), these measures were evaluated with respect to their relationship to physical and mental health, trauma-related distress, and posttraumatic symptom severity. Using multivariate regression models, general spiritual beliefs and anger emerged in association with each outcome, whereas resilience was associated with health status and posttraumatic symptom severity only. Forgiveness, hatred, and beliefs in reincarnation were not associated with outcome. The importance of these findings to treating trauma survivors is discussed.

THEORY

The metatheory of resilience and resiliency. Richardson GE., 2002. *J Clin Psychol*, 58(3):307-21.

Resiliency and resilience theory is presented as three waves of resiliency inquiry. The identification of resilient qualities was the first wave characterized through phenomenological identification of developmental assets and protective factors. The second wave described resilience as a disruptive and reintegrative process for accessing resilient qualities. The third wave exemplified the postmodern and multidisciplinary view of resilience, which is the force that drives a person to grow through adversity and disruptions. Application of resilience using an educational and practical framework provides a means for connecting with and nurturing a client's resilience. Practical paradigms of resiliency that empower client control and choice are suggested.

Resilience: a historical review of the construct. Tusaie K, Dyer J., 2004. *Holist Nurs Pract*, 18(1):3-8; quiz 9-10.

Evolution of the construct of resilience from physiological and psychological research extends from the 1800s to the present. This review supports 3 observations: (1) the importance of a dynamic, interactive perspective for understanding resilience; (2) the complexity of the construct requires a holistic perspective; and (3) the importance of exposure to diverse experiences and educational perspectives for professional health care students.

YOUTH

The importance of parents and other caregivers to the resilience of high-risk adolescents.

Ungar M., 2004. *Fam Process*, 43(1):23-41.

Relationships between 43 high-risk adolescents and their caregivers were examined qualitatively. Parents and other formal and informal caregivers such as youth workers and foster parents were found to exert a large influence on the behaviors that bolster mental health among high-risk youth marginalized by poverty, social stigma, personal and physical characteristics,

ethnicity, and poor social or academic performance. Participants' accounts of their intergenerational relationships with caregivers showed that teenagers seek close relationships with adults in order to negotiate for powerful self-constructions as resilient. High-risk teens say they want the adults in their lives to serve as an audience in front of whom they can perform the identities they construct both inside and outside their homes. This pattern was evident even among youth who presented as being more peer-than family-oriented. The implications of these findings to interventions with caregivers and teens is discussed.

* This bibliography is an overview of research on resilience published between 2000-2005. It was compiled in January 2005 using PubMed and Google Scholar search engines. The search terms used were: resilience, resiliency, trauma, optimism, positive adaptation, positive emotions, and salutogenic.

For more information on resilience—including a self-assessment questionnaire, fact sheets, and other helpful resources—visit www.ncvc.org/resilience.

***The Virginia Resilience Project Post 9/11**, a strength-based public health initiative, aims to promote the resilience of 9/11 victims, their families, and first responders by helping them cope with the ongoing trauma of the 2001 terrorist attacks. For complete information about the project, visit www.ncvc.org/resilience.*

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