Resilience: A Selected Bibliography

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1.0 Community and Organizational Resilience

An Agenda to Advance Integrative Resilience Research and Practice: Key Themes from a Resilience Roundtable


Resilience is defined as the capacity of any dynamic system to anticipate and adapt successfully to difficulties. Individual resilience is the process of, capacity for, or outcome of adapting well in the face of adversity, trauma, tragedy, threats, or significant sources of stress. While resilience science has advanced greatly in terms of understanding the factors that promote individual as well as community resilience, there is increasing recognition of the need for transdisciplinary research (among disciplines such as psychology, environmental health, public health, architecture, planning and community development, economics, political science, criminal justice, etc.). Approximately 80 leading researchers, practitioners, and policymakers met in June 2016 to explore opportunities for a future resilience agenda. The results were synthesized into three themes: 1) stresses – addressing the continuum of stress from acute to chronic; 2) systems – developing and building systems that are oriented to resilience and 3) workforce – building a broader workforce that can integrate resilience principles.

Prepare. Why Enterprise Resilience Matters


The ability to survive and thrive in an uncertain and turbulent environment requires resilience and agility. Resilience is the ability to rapidly recover and resume a former shape. Agility is the ability to assume a desired shape in order to rapidly adapt and seize desired opportunities. Risk intelligence is the ability to detect and rapidly respond to changes that affect the business model and bottom line. Risk intelligence enables: no surprises, no big mistakes, and no missed opportunities. Of course, brutal reality is that there will always be surprises, mistakes and missed opportunities. But, in a risk-intelligent enterprise, they will not be life-threatening. Critical skills of risk-intelligent enterprises include: check your assumptions at the door, anticipate potential causes of failure, identify interconnections and interdependencies, improve reaction time, develop common senses to get insight and foresight, not hindsight, verify sources of information, maintain a margin of safety, maintain operational discipline, and adopt a long-term view. In sum: build risk intelligence into decision-making processes, but do not bolt it on; focus on value – protecting what you have while creating new values; drive out fear of talking about potential failure; generate dialogue, no reports; rely on judgement, not formulas; and manage icebergs first, not ice cubes.
Turning Strain into Strength: Developing Intercultural Resilience in Times of Cultural Adversity


This paper is written by an expat to other expats. It is written to help and prepare individuals and families who are about to embark on a period abroad. This paper aims to present a concept thinking that can help expats coping with intercultural challenges. Life as an expat includes a high level of uncertainty compared to life at home. This paper will show how resilience thinking can be used to explain the different processes individuals and families face before, during, and after their relocation to a new destination. It aims to show how resilience thinking can envelope what is psychologically required in order to succeed. What character traits are necessary to turn an international assignment into a successful one, both professionally as well as personally? What risks and emotional challenges await expats, and how can they best overcome them? With resilience thinking as its point of departure, this paper will introduce theories of adaptation, outline important intercultural communication skills and discuss ways of coping with intercultural stress in the best possible manner. This paper will cover key areas of intercultural adaptation studies, but using resilience thinking as a platform for it all. As much as there is no textbook way to become intercultural resilient, this paper will attempt to provide transferees with a helping hand in their quest for a successful stay in a new destination.


Given the growing emphasis in research and service provision on strengths rather than deficits, the focus on youth support in the South African Children's Act of 2005 and the lack of educational, therapeutic and other resources for most South Africans, insight into, and transdisciplinary commitment to, resilience is crucial. Resilience, or the phenomenon of 'bouncing back' from adversity, is common to societies that grapple with threatened well-being. Increasingly, international resilience studies have suggested that the capacity to rebound is nurtured by multiple resources that protect against risk and that these resources are rooted in culture. In this paper, we critically reviewed 23 articles that focus on South African youth resilience, published in academic journals between 1990 and 2008. By broadly comparing South African findings to those of international studies, we argued for continued research into the phenomenon of resilience and for a keener focus on the cultural and contextual roots of resilience that are endemic to South Africa. Although international resilience research has begun to match the antecedents of resilience to specific contexts and/or cultures, South African research hardly does so. Only when this gap in youth resilience research is addressed, will psychologists, service providers, teachers and communities be suitably equipped to enable South African youth towards sustained resilience.
A Primer in Resiliency: Seven Principles for Managing the Unexpected


For business organizations, the ability to manage volatility is a crucial strategic competency, one of the pillars of competitiveness. Contrary to conventional perception, resilience is not just about minimizing and managing the impact of natural disasters. It is about creating the agility needed to adapt to unexpected challenges—whatever they may be—and the capacity to seize opportunity from adversity. This analysis of seven principles of resiliency includes practical suggestions for implementing each one, along with examples of companies that have managed to improve their operational effectiveness, even in time of crisis, by putting these precepts into practice.

A Ready and Resilient Workforce for the Department of Homeland Security: Protecting America’s Front Line


The responsibilities of the Department of Homeland Security (DHS) range from preventing foreign and domestic terrorist attacks; securing the nation's borders; safeguarding transportation systems; responding to natural disasters; nuclear detection; and more. Created in 2002 from a merger that rapidly incorporated parts of eight cabinet departments and 22 government agencies, DHS has struggled to integrate its numerous components and their unique cultures. While DHS is very accomplished at performing its many missions, the nature of the DHS work environment is inherently stressful, and employees suffer from low morale. A Ready and Resilient Workforce for the Department of Homeland Security: Protecting America’s Front Line reviews current workforce resilience efforts, identifies gaps, and provides recommendations for a 5-year strategy to improve DHS together, the current DHS workforce resilience program. This report stresses the importance of strong leadership, communication, measurement, and evaluation in the organization and recommends content for a 5-year plan that will promote centralized strategic direction and resource investment to improve readiness and resilience at the department. While all DHS component agencies share a common mission, each have distinct roles with different stressors attached, making implementation of an organization-wide resilience or wellness program difficult. The recommendations of A Ready and Resilient Workforce for the Department of Homeland Security outline how DHS can focus its efforts on creating a common culture of workforce readiness and resilience, while recognizing the distinct, proud, celebrated cultures of its component agencies.
Analysis of Resilience Measurement Frameworks and Approaches


The resilience concept is on a journey from scientific niche towards widespread operational application. A wide range of frameworks and approaches, emerging from a diverse set of sectors and organizations, exists to guide, diagnose, measure, and evaluate resilience. This briefing report aims to stimulate early thinking around the landscape of resilience measurement and monitoring and evaluation (M&E). The document is not a technical discussion of measurement principles but rather an overview of commonly used approaches in the field. It was elaborated in collaboration with members of the Resilience Measurement, Evidence and Learning Community of Practice (CoP) who have provided invaluable contributions and feedback that reflect their knowledge of resilience measurement. A first draft of the paper was presented and circulated at the CoP’s first core group meeting in May 2016 with a sample of 20 frameworks. After the convening, members of the CoP provided advice on the structure of the final report and suggestions for expanding the sample and analysis to an additional 25 frameworks and resilience treatises. Further, this report was designed to inform the second meeting of the CoP, determine areas of commonality across major resilience approaches, and identify areas where the CoP can advance the field of resilience measurement. The inventory and analysis of frameworks asked the following questions: Definition? Do the frameworks subscribe to a particular conceptualization/definition of resilience? Scale, system, and temporal issues? At what scale do the frameworks measure resilience? For which systems and sectors are the frameworks designed? How do the frameworks consider temporal dimensions? Building blocks? What are the principal components of the frameworks that help build resilience? Function. Are frameworks oriented towards measuring changes in resilience resulting from particular interventions, or concerned with helping to plan for resilience by diagnosing the elements of a system that make them more or less resilient? Capacity? How do the frameworks conceptualize resilience in terms of capacities? Sector? How do fields beyond international development, humanitarian interventions, disaster risk reduction, and urban planning frame and measure resilience? The following sections explore these questions by illustrating key points with examples from resilience measurement frameworks. Despite the numerous differences among approaches that have been debated to date, there are also a surprising number of similarities among them. The emerging field of resilience measurement could build on these, in order to develop an evidence base for resilience interventions.
Antecedents of Organizational Engagement: Exploring Vision, Mood and Perceived Organizational Support with Emotional Intelligence as a Moderator


As organizational leaders worry about the appalling low percentage of people who feel engaged in their work, academics are trying to understand what causes an increase in engagement. We collected survey data from 231 team members from two organizations. We examined the impact of team members’ emotional intelligence (EI) and their perception of shared personal vision, shared positive mood, and perceived organizational support (POS) on the members’ degree of organizational engagement. We found shared vision, shared mood, and POS have a direct, positive association with engagement. In addition, shared vision and POS interact with EI to positively influence engagement. Besides highlighting the importance of shared personal vision, positive mood, and POS, our study contributes to the emergent understanding of EI by revealing EI’s amplifying effect on shared vision and POS in relation to engagement. We conclude by discussing the research and practical implications of this study.

Assessing Behaviors that Create Resilient Organizations


Resilience is a fundamental quality of individuals, groups, organizations, and systems as a whole to respond productively to significant change that disrupts the expected pattern of events without engaging in an extended period of regressive behavior. The Seven streams of resilient behavior – community, competence, connections, commitment, communication, coordination, and consideration – act as a whole system response, as a practical theory that has the capacity to adapt and mold to changing data and shifting circumstances in the face of new technology. Community refers to the internalized understanding that the people within the organization have of the purpose, present vision, mission, and values in use. Competence is the fit between the capacity for blended skills/knowledge to meet the demands of internal and external environments matched with the inclination of individuals/groups/teams to be effective and accountable during periods of major organizational stress. Connections are the characteristics and properties of relationships between persons, groups, and the system that determine the capacity and flexibility of the organization as a whole to respond under pressure. Commitment refers to the ability of all sectors of the organization to work together during periods of uncertainty with a sense of striving to maintain trust and goodwill. Communication involves the sharing of relevant information that we make sense, derive order, define what is working, plan responses and spur growth. Coordination is the linking of our efforts together to achieve effective results. Consideration accommodates the human factor in daily organizational life. In order to determine the behaviors existing in an organization in comparison to those promoting resilience, the Organizational Resilience Inventory was developed in 1996 by John Horne and John Orr. A comparative analysis of the data yields a ‘timeliness’ index that indicates which of the organizational
Building a Resilient Organizational Culture

Everly, G. S. (2011). Building a resilient organizational culture. *Harvard Business Review*, 1-4. While human resilience may be thought of as a personality trait, in the aggregate, groups, organizations, and even communities can learn to develop a ‘culture of resilience’ which manifests itself as a form of ‘psychological immunity’ to, or the ability to rebound from, the untoward effects of adversity. A culture of organizational resilience is built largely upon leadership, what we refer to as ‘resilient leadership,’ often has the ability to ‘tip’ the organization in the direction of resilience and to serve as a catalyst to increase group cohesion and dedication to the mission. They do this by demonstrating four core attributes of optimism, decisiveness, integrity, and open communications while serving as conduits and gatekeepers of formal and informal informational flows throughout the organization and enjoying high source credibility. Our evidence suggest that optimism and self-efficacy can be learned employing a simple yet powerful framework in the organization: (1) understand that people prosper from success, (2) people learn while observing others, (3) provide encouragement, support, and even mentoring, and (4) provide basic training in how to manage personal stress. Resilient organizational invest in their client base, are innovative in times of adversity, invest in their leaders, and invest in all levels of their workforce.

Building a Resilient Workforce: Opportunities for the Department of Homeland Security: Workshop Summary


Every job can lead to stress. How people cope with that stress can be influenced by many factors. The Department of Homeland Security (DHS) employs a diverse staff that includes emergency responders, border patrol agents, federal air marshals, and policy analysts. These employees may be exposed to traumatic situations and disturbing information as part of their jobs. DHS is concerned that long-term exposure to stressors may reduce individual resilience, negatively affect employees’ well-being, and deteriorate the department's level of operation readiness. To explore DHS workforce resilience, the Institute of Medicine hosted two workshops in September and November 2011. The September workshop focused on DHS’s operational and law enforcement personnel, while the November workshop concentrated on DHS policy and program personnel with top secret security clearances. The workshops brought together an array of experts from various fields including resilience research, occupation health psychology, and emergency response. *Building a Resilient Workforce: Opportunities for the Department of*
Homeland Security: Workshop Summary: 1. Defines workforce resilience and its benefits such as increased operational readiness and long-term cost savings for the specified population; 2. Identifies work-related stressors faced by DHS workers, and gaps in current services and programs; 3. Prioritizes key areas of concern; and 4. Identifies innovative and effective worker resilience programs that could potentially serve as models for relevant components of the DHS workforce. The report presents highlights from more than 20 hours of presentations and discussions from the two workshops, as well as the agendas and a complete listing of the speakers, panelists, and planning committee members.

Chapter 16: Building Organizational Resilience and Adaptive Management


In this chapter, we explore the way the notion of resilience has been treated in the traditional and more contemporary literature on organization and management, then explore contemporary conceptions of organizational resilience. First, we briefly examine the meaning of resilience as it relates to individuals, ecological systems, and organizations. Second, we consider some of the key characteristics of resilient organizations. Third, we look at traditional constructs of organization and management theory, and examine how these views can actually impede the development of resilience. Fourth, we look at more contemporary expressions of organizational theory that begin to open the door to the possibilities of creating more resilient organizations. Fifth, we explore an emerging, resilience-based framework for organizational and management theory. We conclude with some implications for organizational leadership and management.

Community Resilience as a Metaphor, Theory, Set of Capacities, and Strategy for Disaster Readiness


Communities have the potential to function effectively and adapt successfully in the aftermath of disasters. Drawing upon literatures in several disciplines, we present a theory of resilience that encompasses contemporary understandings of stress, adaptation, wellness, and resource dynamics. Community resilience is a process linking a network of adaptive capacities (resources with dynamic attributes) to adaptation after a disturbance or adversity. Community adaptation is manifest in population wellness, defined as high and non-disparate levels of mental and behavioral health, functioning, and quality of life. Community resilience emerges from four primary sets of adaptive capacities—Economic Development, Social Capital, Information and Communication, and Community Competence—that together provide a strategy for disaster readiness. To build collective resilience, communities must reduce risk and resource inequities, engage local people in mitigation, create organizational linkages, boost and protect social supports, and plan for not having a plan, which requires flexibility, decision-making skills, and trusted sources of information that function in the face of unknowns.
Counterproductive Work Behavior Among Frontline Government Employees: Role of Personality, Emotional Intelligence, Affectivity, Emotional Labor, and Emotional Exhaustion


The main objective of this research is to study the effect of personality, emotional intelligence (EI), affectivity, emotional labor and emotional exhaustion on counterproductive work behavior (CWB) of frontline employees in the government sector. A questionnaire was designed and distributed to 625 frontline employees working at service counters in 25 ministries in Malaysia. We received responses from 519 employees (response rate = 83%). The data was analyzed using Structural Equation Modeling (SEM). The main findings are: (1) personality factors of employees drive their EI, affectivity, emotional labor, emotional exhaustion, and CWB and (2) EI and affectivity impact emotional labor, emotional exhaustion and CWB. Through the integrated model, we have studied the indirect roles of emotional labor and emotional exhaustion. This is one of the few studies that have effectively integrated the five constructs into a single framework to study their effects on CWB.

Developing a Tool to Measure and Compare Organizations’ Resilience


Organizational and community resilience are interrelated and interdependent. As a result, organizational resilience is a critical component of communities’ ability to plan for, respond to, and recover from emergencies and crises. Organizational resilience can also be a source of competitiveness and a driver of cultural adaptive capacity. To invest in resilience, organizations need to understand their resilience strengths and weaknesses and must be able to evaluate the effectiveness of resilience strategies. This paper develops a survey tool that organizations can use to identify their strengths and weaknesses and to develop and evaluate the effectiveness of their resilience strategies and investments.
Developing a Framework for Measuring Community Resilience: Summary of a Workshop


The 2012 National Research Council report *Disaster Resilience: A National Imperative* highlighted the challenges of increasing national resilience in the United States. One finding of the report was that “without numerical means of assessing resilience, it would be impossible to identify the priority needs for improvement, to monitor changes, to show that resilience had improved or to compare the benefits of increasing resilience with the associated costs.” Although measuring resilience is a challenge, metrics and indicators to evaluate progress, and the data necessary to establish the metric, are critical for helping communities to clarify and formalize what the concept of resilience means for them, and to support efforts to develop and prioritize resilience investments. One of the recommendations from the 2012 report stated that government entities at federal, state, and local levels and professional organizations should partner to help develop a framework for communities to adapt to their circumstances and begin to track their progress toward increasing resilience. To build upon this recommendation and begin to help communities formulate such a framework, the Resilient America RoundTable of the National Academics convened the workshop *Measures of Community Resilience: From Lessons Learned to Lessons Applied* on September 5, 2014 in Washington, D. C. The workshops overarching objective was to begin to develop a framework of measures and indicators that could support community efforts to increase their resilience. The framework will be further developed through feedback and testing in pilot and other partner communities that are working with the Resilience America Roundtable. This report is a summary of the one-day workshop, which consisted of a keynote address and two panel sessions in the morning and afternoon breakout sessions that began the discussion on how to develop a framework of resilience measures.

Eating Together at the Firehouse: How Workplace Commensality Relates to the Performance of Firefighters


Cooperative activities among coworkers can provide valuable group-level benefits; however, previous research has often focused on artificial activities that require extraordinary efforts away from the worksite. We investigate organizational benefits that firms might obtain through various supports for coworkers to engage in commensality (i.e., eating together). We conducted field research within firehouses in a large city to explore the role that interacting over food might have for work-group performance. Using a mix of qualitative and quantitative methods, our field research shows a significant positive association between commensality and work-group performance. Our findings establish a basis for research and practice that focuses on ways that firms can enhance team performance by leveraging the mundane and powerful activity of eating.
Enacting Resilience: Resources for Health and Cohesion in Punjabi Communities


This article is composed of the following three parts: part 1 introduces the study of resilience by presenting an overview of the various commonalities between resilience thinking that exist across disciplines; part 2 defines societal resilience and, in the process distinguishes it from the general conception of resilience as it was introduced in part 1; and part 3 discusses features common to resilient individuals and resilient communities. With access to a precise definition and articulation of the qualities of resilience, scholars and practitioners are better placed to develop programs and promote relationships that facilitate the growth in community resilience.

Enhancing Organizational Resilience: Application of Viable System Model and MCDA in a Small Hong Kong Company


The aim of this article is to combine the use of the viable system model (VSM) and a multi-criteria decision aid (MCDA) based on Superiority and Inferiority Ranking methodology for enhancing organizational resilience. VSM is applied to capture the cybernetic strengths and weaknesses of an organization. The structural arrangements and cybernetic criteria, related to organizational resilience, are identified. In order to evaluate the structural arrangements, MCDA is adopted as a systematic approach for determining the most preferred option. A sample study of a small enterprise in Hong Kong is illustrated, in which the computation of the system-in-focus in the context of viability is based on a set of criteria related to corporate credibility and autonomy-control dilemma. The development of integrated approach using VSM and MCDA could, in the future, serve as a supporting decision-aid tool, which would be used to guide management in their choice of organizational resilience solution. The preliminary result shows that the proposed approach provides management with an objective and systematic means to make organizational resilience decisions by evaluating various structural arrangements of an organization for achieving adaptation in a changing business environment. Besides, the MCDA approach can be used to enhance the value of VSM.

Getting to Parallel: Assessing the Return on Expectations of Training


Increasingly, “What value are you adding?” is the type of scrutiny training development manager’s face. Effectively responding to this increase in scrutiny requires a process with
sufficient rigor to provide credible evidence of value. Our approach to address the demands of rigor, repeatability, and uniqueness consisted of two key features: 1) obtain a preponderance of evidence demonstrating that the expectations for program impact originally leading to the investment were met and 2) collect evidence with sufficient methodological rigor to withstand scrutiny. The chain of evidence starts by establishing a clear understanding of expectation and an assessment of the return on those expectations (ROE). Value can be claimed when the ROE is high, and a high ROE is achieved when evidence shows that a program has achieved the three C’s: consensus, correspondence, and consistency. Given that multiple viewpoints exist and differ, defining value means populating expectations of impact with these multiple perspectives. Expectation setting requires three steps: 1) setting expectations, 2) create the key messages about training impact, and 3) create expectations for baseline performance. Our definition of value asserts that the results of our outcomes of training ought to ‘correspond’ with the expectations for training. Correspondence requires obtaining the student perspective, comparing the student perspective against expected impact, and triangulating using multiple perspectives. The training experience needs to be the same across the organization. If the different students learn different things, the organization is not building a common knowledge base. The investment of resources (e.g. personnel to support the training event, training methods, and student and faculty materials) in the delivery of programs ought to ensure consistent outcomes.

How Civil Institutions Build Resilience


Resilience, as presented in the literature, is an attribute of a system that generally indicates its ability to maintain critical operations in the face of adverse disruptions. Beyond this general definition lie many variances based on community characteristics, threat environments, and overall operational goals. Attributes, such as complexity, structure, training, and performance objectives, determine how a community approaches resilience, while characteristics of the operational environment, including risk tolerance, scope of possible threats, and expected impact, indicate which indicators are appropriate for assessing resilience. Different communities have therefore developed unique concepts of and approaches to resilience, along with appropriate corresponding indicators that then vary among communities. In the psychological community, resilience is demonstrated when an individual emerges from an adverse experience with increased psychological and emotional strength. The factors that make an individual psychologically resilient are often more subjective and attitude related, and here the primary resilience metric is the emotional well-being of the individual.3 In contrast, engineers characterize a structure as resilient based on its ability to avoid failure; factors that contribute to structural resilience include physical strength and robustness, and the ability to avoid structural failure is the primary resilience metric.4 In ecological communities, the ability to adapt to new threats enables resilience of the entire community, and this flexibility is an important metric in evaluating these systems. Based on these variances, enhancing resilience requires a varied approach that takes into account these community attributes and operational environment. This report presents the approaches taken by three different types of communities to develop and maintain resilient operations. The discussion presented in this report illustrates methods for
building resilience through withstanding an adverse event (impact avoidance and robustness), resilience through adaptation and flexibility, and resilience through recovery and restoration. Communities seeking to develop more resilient operations can gain insight from the academic studies and experience provided in the literature. By identifying the methods and lessons derived from previous studies of similar operational environments and how they addressed resilience, similar operations can benefit from this insight. These approaches are broadly described in this report as: *withstand, adapt*, and *recover*. Recognizing that any given organization will incorporate all three of these approaches in an overall resilience plan, this report seeks to highlight organizations that will be most likely to emphasize one of these approaches over another.

**Integrating Employee Health: A Model Program for NASA**


The American workforce is changing, creating new challenges for employers to provide occupational health services to meet the needs of employees. The National Aeronautics and Space Administration (NASA) workforce is highly skilled and competitive and employees frequently work under intense pressure to ensure mission success. The Office of the Chief Health and Medical Officer at NASA requested that the Institute of Medicine review its occupational health programs, assess employee awareness of and attitude toward those programs, recommend options for future worksite preventive health programs, and ways to evaluate their effectiveness. The committee’s findings show that although NASA has a history of being forward-looking in designing and improving health and wellness programs, there is a need to move from a traditional occupational health model to an integrated, employee-centered program that could serve as a national model for both public and private employers to emulate and improve the health and performance of their workforces.

**International Students’ Personal and Multicultural Strengths: Reducing Acculturative Stress and Promoting Adjustment**


International students are often encouraged to cope with acculturative stress by relying on personal and multicultural strengths. The authors explored this assumption by testing personal growth initiative, hardiness, and universal-diverse orientation as predictors of international students’ acculturative stress and adjustment. Data from 336 international students supported a partially mediated model, such that greater levels of personal and multicultural strengths predicted less acculturative problems, thus leading to better adjustment.


The objective of this paper is to better understand the various individual and household factors that influence resilience, that is, people’s ability to respond adequately to shocks and stressors. One of our hypotheses is that resilience does not simply reflect the expected effects of quantifiable factors such as level of assets, or even less quantifiable social processes such as peoples experience, but is also determined by more subjective dimensions related to people’s perceptions of their ability to cope, adapt or transform in the face of adverse events. Data collected over two years in Fiji, Ghana, Sri Lanka and Vietnam confirms the importance of wealth in the recovery process of households affected by shocks and stressors. However our results challenge the idea that within communities, assets are a systematic differentiator in people’s response to adverse events. The findings regarding social capital are mixed and call for more research: social capital had a strong positive influence on resilience at the community level, yet our analysis failed to demonstrate any tangible positive correlation at the household level. Finally, the data confirm that, like vulnerability, resilience is at least in part socially constructed, endogenous to individual and groups, and hence contingent on knowledge, attitudes to risk, culture and subjectivity.

Jewish Community Resilience


In response to the changing reality of Europe, a team of JDC lay and professional leadership, guided by a consultant, has been studying resilience in order to develop a model which is appropriate for Jewish communities today. The work presented here is the culmination of that process, and includes: A working definition of “Jewish community resilience,” the core capacities needed to promote resilience, together with the associated building blocks that strengthen each of those capacities, and principles of developing a community resilience programme. One of the crucial attributes of a self-sustainable community is its resilience: the community’s ability - in time of crisis or emergency and in its aftermath - to utilize its resources, adapt to environmental changes and continue to function and provide key communal activities in order to preserve and promote its members’ physical and psychological wellbeing. No one single capacity enables a community to cope with a crisis situation. Instead, community resilience is an inter-connected network of core capacities. All capacities are relevant and can be advanced with the right intervention. Community resilience cannot be achieved by focusing on the development of just one capacity. The core capacities for Jewish community resilience are as follows: leadership, economic sufficiency, narrative and communications, shared values, organizational competence, preparedness and security, sense of community, and social capital.
Less Acting, More Doing: How Surface Acting Relates to Perceived Meeting Effectiveness and Other Employee Outcomes


This study adds to the growing body of research on work meetings and extends the emotional labor literature beyond a service context by examining the relationship between surface acting during meetings and perceived meeting effectiveness. Additionally, the relationships of surface acting during meetings and perceived meeting effectiveness with time-lagged reports of intention to quit and emotional exhaustion 3 months later were investigated. Structural equation modelling of data from 178 working adults revealed negative relationships between surface acting and perceptions of meeting effectiveness. Perceived meeting effectiveness partially mediated the relationship between surface acting and both intention to quit and emotional exhaustion 3 months later. These findings expand both the limited research on perceived meeting effectiveness and the surface acting nomological network to include a consideration that expressing inauthentic emotions in meetings (surface acting) may relate to the perceived effectiveness of the meeting. As well, both surface acting during meetings and perceived meeting effectiveness may relate to how emotionally exhausted employees feel and their intentions to seek other employment. Given the cost and pervasiveness of meetings in daily organizational life and their potential effects on the well-being of employees, understanding how to make meetings effective is paramount – particularly if researchers and practitioners want to better understand how perceived meeting effectiveness may be related to various employee outcomes.

Managing for Resilience: Lessons from Ecology


Understanding and developing resilience is becoming increasingly important in business for both leaders and organizations. Resilient organizations can successfully navigate uncertainty and change. Resilience, however, is a poorly understood attribute. We thus turn to ecosystem resilience theory to understand the concept of resilience. We identify four lessons that can be adapted from management for ecological resilience to management for business resilience: 1) resilience can be positive or negative depending on the nature of the function it supports, 2) diversity of individuals, departments, flows of information, perspective, and other attributes contributes to resilience, 3) because we have imperfect knowledge about the timing and nature of a given disturbance and thus imperfect knowledge about the exact components of diversity that will promote resilience in the face of it, there is a benefit to preserving diversity, even if it reduces efficiency under static conditions, and 4) to the extent that disturbances are unavoidable, emphasis should be placed on low-level adaptability to support high-level resilience of function. In managing for resilience, the leader can apply these lessons both by
promoting diversity (of functional redundancy and response diversity) throughout all levels of the organization and by focusing on development of flexibility, nimbleness, and adaptability. This work has led us to develop seven theoretical propositions on leadership for resilience that can spur further research to integrate ecology and business leadership perspectives.

Measures of Community Resilience for Local Decision Makers: Proceedings of a Workshop


The 2012 National Research Council report, *Disaster Resilience: A National Imperative* identified the development and use of resilience measures as critical to building resilient communities. Although many kinds of resilience measures and measuring tools have and continue to be developed, very few communities consistently use them as part of their planning or resilience building efforts. Since federal or top-down programs to build resilience often yield mixed results, bottom-up approaches are needed, but are often difficult for communities to implement alone. A major challenge for many communities in developing their own approaches to resilience measures is identifying a starting point and defining the process. Other challenges include lack of political will due to competing priorities and limited resources, finite time and staff to devote to developing resilience measures, lack of data availability and/or inadequate data sharing among community stakeholders, and a limited understanding of hazards and/or risks. Building on existing work, the National Academies of Sciences, Engineering, and Medicine organized a workshop in July 2015 to facilitate the exchange of knowledge and information about ways to advance the development and implementation of resilience measures by and within diverse communities. Participants worked to gain a better understanding of the challenges these communities face in the pursuit of resilience and determine whether the approach used during this workshop can help guide communities in their efforts to build their own measures of resilience. This publication summarizes the presentations and discussion from the workshop.

Measuring Resilience in Health Care Provider Organizations


Health care providers offer an ideal setting to study the effectiveness of resilient behavior. The notion of a resilient organization is an emerging concept for understanding and coping with the modern-day pace of change and associated work stress. Resilience is the ability of an individual or organization to expeditiously design and implement positive adaptive behaviors matched to the immediate situation, while enduring minimal stress. This paper reports on the development and testing of several scales designed to measure aspects of resilience in the health care provider industry. Six factors explaining over half the instrument variance were found, including: goal-directed solution seeking; avoidance; critical understanding; role dependence; source reliance; and resource access. Results are discussed and future research is outlined.
Method for Computing the Resiliency Score of an Organization or any Part Thereof


A method computes a resiliency score of an entity by representing the entity as a set of components. The method determines interactions and relationships and can, in one embodiment, determine two types of relationships between the components to produce resiliency scores for the components. These two types of relationships comprise a dependency relationship (whether a first component depends on one or more additional components to function) and a substitution relationship (whether two or more components share some functionality, and whether the first component can be at least partially substituted for one or more additional components). The method computes and outputs an overall score representing a resiliency of the entity based on the scores of the components of the entity and relationships between the components.

Organizational and Leadership Virtues and the Role of Forgiveness


The investigation of virtues in organizational life has been neglected. Systematic studies of the development and demonstration of virtue have been all but absent in the organizational sciences. This article highlights the potential impact of virtues in organizations, particularly the power of forgiveness to affect individual and collective outcomes. Under conditions of organizational injury and trauma, such as when organizations downsize, leaders have an especially important role to play in demonstrating virtuous behaviors. In this paper, we describe some early research findings that explore the effects of organizational virtues, and we highlight the role of one particularly misunderstood virtue--organizational forgiveness--and its role in the leadership of effective organizations.

Organisational Resilience


Both leaders and employees need to be involved in ensuring that organisations are flexible enough to sustain themselves into the future. The impact of mental health problems on the workplace has serious consequences not only for the individual but also for the productivity of the organisation. It is not simply about how to cope with change but rather it is about anticipating change and thriving on the challenges, to one’s own advantage. Being resilient in the face of these kinds of change is directly related to flexibility and innovation skills. It is about having the capacity for deep and constant renewal, for being the revolutionary, for thinking completely out of
the box and for finding markets where none may have existed previously. In order to succeed in this complex world, simple and linear approaches are inadequate, more complex, flexible and multi-faceted approaches are required. Organisational resilience is defined as the frequency and magnitude of strategic transformation divided by the time expense and trauma of those transformations. An organisation can only be resilient if its human capital is resilient. The features of a resilient organisation that can confront reality and engage in corporate renewal on an ongoing basis needs include the following: powerful, flexible innovative leadership, sustainable internal alignment, capacity for leadership and workforce to accept the challenges, roll with the punches and bounce back, ongoing innovation and reinvention, and the capacity for optimism, passion, and thriving.

Psychological Collectivism and Team Effectiveness: Moderating Effects of Trust and Psychological Safety


The importance of emergent states and their influence on team functioning has become a focus for understanding various team outcomes. Using hierarchical linear, modeling we examine the moderating effects of two emergent states, team trust and psychological safety, on the relationship between psychological collectivism and team outcomes. Psychological collectivism is the internal orientation of an individual toward group goals, concern for group well-being, acceptance of group norms and a tendency toward cooperation in group contexts. Results from multilevel analysis of 58 teams of students (N=260) show that psychological collectivism is strongly related to team member evaluations of team satisfaction, team identity, and willingness to work with team members. Team trust and psychological safety moderated the relationship such that the effects of psychological collectivism were constrained in conditions of high trust and high safety. Implications for research and practice are discussed.

Resilience Across Cultures


Findings from a 14 site mixed methods study of over 1500 youth globally support four propositions that underlie a more culturally and contextually embedded understanding of resilience: 1) there are global, as well as culturally and contextually specific aspects to young people’s lives that contribute to their resilience; 2) aspects of resilience exert differing amounts of influence on a child’s life depending on the specific culture and context in which resilience is realized; 3) aspects of children’s lives that contribute to resilience are related to one another in patterns that reflect a child’s culture and context; 4) tensions between individuals and their cultures and contexts are resolved in ways that reflect highly specific relationships between aspects of resilience. The implications of this cultural and contextual understanding of resilience to interventions with at-risk populations are discussed.
Resilience and Mental Health in Adult Survivors of Child Abuse Associated with the Institution of the Austrian Catholic Church


In recent years, reports of institutional abuse within the Catholic Church have emerged and research on the consequences on mental health is in its beginnings. In this study, we report findings on current mental health and resilience in a sample of adult survivors of institutional abuse (*N = 185*). We compared 3 groups of survivors that differed regarding their current mental health to investigate aspects of resilience, coping, and disclosure. The majority of the sample was male (76.2%), the mean age was 56.28 (*SD = 9.46*) years, and more than 50.0% of the sample was cohabiting/married. Most of the survivors reported severe mental health problems. Known protective factors (education, social support, age) were not associated with mental health in our sample. Our findings corroborate that institutional abuse has long-term effects on mental health. We found that fewer emotional reactions during disclosure, task-oriented coping, and optimism were associated with better mental health. The study was limited by a cross-sectional design, but we conclude that the kind of institutional abuse reported is especially adverse, and thus typical protective factors for mental health do not apply. Future research should focus on intrapersonal factors and institutional dynamics to improve treatment for persons affected by institutional abuse.

Resilience in a Cross-Cultural Perspective: How Resilience is Generated in Different Cultures


In this study I will explore how resilience is related to culture. Do different cultures generate resilience in different ways? As a background I present a model of resilience developed from a review of a number of studies as well as my own research. This model shows how the various protective factors can be divided into three main groups, and how different combinations of these factors develop resilience through some basic psychological processes. Based on a dynamic definition of culture, the article presents examples of three different cultures and how they generate resilience. The article then briefly discusses four issues in relation to resilience and culture: 1. Protective factors -- universal or contextual, 2. Different ways of creating resilience, 3. Resilience and vulnerability from culture, 4. Minority and majority cultures, biculturalism and resilience. In the discussion the article make comparisons between Southern African culture and Norwegian culture. Lastly, the article highlights some possible educational implications of the study.
Resilience Measurement-Mel Approaches in Practice


This report offers a discussion of the key challenges and lessons in operationalizing resilience measurement-monitoring, evaluation and learning (MEL) frameworks, a headline synthesis of key messages from case study evidence, and suggested headline priorities for consideration by the Community of Practice (CoP). The work draws on the combined experience and knowledge of a set of leading specialists and practitioners who design and operationalize the resilience measurement and resilience monitoring and evaluation (M&E) systems of the largest and most innovative and prominent resilience-strengthening programs globally. The reflections of these experts on the challenges they face in operationalizing resilience measurement frameworks were captured in a set of case studies, which were then presented and discussed by the CoP. The evidence and ensuing discussion was synthesized and analyzed using a framework approach to thematic analysis. The analysis revealed a number of ongoing conceptual, technical, and practical challenges facing efforts to measure resilience, associated with how to: determine frequency of measurement required to capture the dynamic nature of resilience, bring together data from household, community, and systems levels, understand and measure transformative capacity and system changes, support field-level practitioners in using data to adapt and strengthen interventions in real time, and share data with other actors in forms that allow them to understand the implications for their areas of interest. The report concludes by presenting a set of priorities for consideration by the CoP: define the purpose of the CoP in facilitating collaboration and shared learning in order to progress thinking on resilience measurement (RM) technical challenges, position the CoP to play the lead role in learning what is ‘unique’ about resilience measurement and MEL, support capacity building based on the new knowledge generated by the CoP where appropriate, and contribute to change at the highest level by supporting the uptake of CoP resilience measurement evidence, new knowledge, and best practice. Part II of the report contains selected case studies from leading resilience measurement-MEL practitioners. These were presented at the CoPs second convening and significantly informed the work program of the CoP for 2017-2018.

Roads to Resilience: Building Dynamic Approaches to Risk


To gain a pragmatic understanding of how organizations could develop, sustain and enhance their resilience to deal effectively with known, unknown, and unknowable risks, Cranfield School of Management was asked by Airmic to study a sample of companies that have managed to protect their reputations and balance sheets in the face of significant challenges. In contrast to Roads to Ruin, this research could not be based solely on informational available in the public domain. It required deeper insights gained through case study research. In each of the eight case study organizations, semi-structured interviews were conducted across business operations, leadership functions, risk management and internal audit; that is, on either side of where the risk
‘glass ceiling’ resided in the Roads to Ruin organizations, as well as within the broader risk management function and the business, in order to compare and contrast perspectives.

The Beginnings of Resilience: A View Across Cultures


A close read of studies of children’s development tells us that remarkable large numbers of children mature successfully despite exposure to poverty, war, violence, family dislocation, cultural genocide, sexual abuse, physical injury, mental illness, loss of a parent, loneliness, hunger, neglect, and the numerous other crimes we commit against children. We know now that, depending on the type and number of risks a child faces, and the length of their exposure, between ten and eighty percent of children do as well as children who have not faced these same challenges. Protective mechanisms that help children grow include: individual factors (schools provide a place that individual talents and skills can meet with an appreciative audience), interpersonal factors (our children’s relationships with their educators can change the impact that exposure to risk has), institutional factors (the structure and social supports found in our schools help children prevent negative chain reactions that might result from exposure to risk), and community factors (as institutions inside communities, our schools and their staff can be a force for change and cultural sensitivity).

The Need for and Meaning of Positive Organizational Behavior


This essay draws from the emerging positive psychology movement and the author’s recent articles on the need for and meaning of a positive approach to organizational behavior. Specifically, the argument is made that at this time, the OB field needs a proactive, positive approach emphasizing strengths, rather than continuing in the downward spiral of negativity trying to fix weaknesses. However, to avoid the surface positivity represented by the nonsustainable best-sellers, the case is made for positive organizational behavior (POB) to take advantage of the OB field’s strength of being theory and research driven. Additional criteria for this version of POB are to identify unique, state-like psychological capacities that can not only be validly measured, but also be open to development and performance management. Confidence, hope, and resiliency are offered as meeting such POB inclusion criteria. The overall intent of the essay is to generate some positive thinking and excitement for the OB field and ‘hopefully’ stimulate some new theory building, research, and effective application.
The Quest for Resilience


Strategic resilience with zero trauma involves continuously anticipating and adjusting to deep, secular trends that can permanently impair the earning power of a core business. A resilient organization must address four challenges – cognitive, strategic, political, and ideological. The cognitive challenge requires a company to be conscious of what’s changing and perpetually willing to consider how those changes are likely to affect its current success. The strategic challenge requires the ability to create a plethora of new options as compelling alternatives to dying strategies. The political challenge must be able to divert resources from yesterday’s products and programs to tomorrows. The ideological challenge questions the doctrine of optimization. A resilient organization can fall under three forms of innovation – revolution, renewal, and resilience. The revolutionaries are companies that need an unconventional strategy to produce unconventional financial returns, while strategic renewal is creative reconstruction requiring innovation with respect to one’s traditional business model. Resilience is prompted by a performance crisis and refers to a capacity for continuous reconstruction. To be resilient, an organization requires senior managers to make a habit of visiting the places where change happens first, as well as facing the inevitability of strategy decay. Strategy decay occurs when strategies are replicated losing their distinctiveness, supplanted by better strategies, exhausted as markets become saturated causing customers to get bored, or eviscerated. Resilience depends on variety, particularly companies should devote themselves to launching a swarm of low-risk experiments rather than grand strategies. Resilience will become something like an automatic process only when companies dedicate as much energy to laying the groundwork for perpetual renewal as they have to building the foundations for operational efficiency.

The Virtuous Cycle of Social Support and Trust in Network Facilitation


This article discusses the practice of facilitation within inter-organizational networks of the non-profit peace movement organizations in Minnesota that opposed the US role in the Iraq War in early 2009. There are insights in this article that could prove beneficial for all types of facilitators and facilitation researchers, however individuals working with inter-organizational networks might find the ideas discussed particularly useful. The findings that are presented here provide statistical evidence to support the principal finding that the level of social support experienced by network members in this study was positively correlated with the level of trust that they had for one another and the network as a whole. This finding leads to the conclusion that there is a virtuous cycle that exists between social support and trust among the members of interorganizational networks. Furthermore, network facilitators can intervene in this cycle to enhance group effectiveness. They can provide and nurture social support and trust by modeling supportive and trustworthy values and behaviors, fostering a supportive and trustworthy group culture, and/or leading trust, team, and relationship-building interventions. The finding that age and gender were positively correlated with social support (meaning elders and women were more likely to experience social support in the network) also suggests that mixing-up groups
demographically by age and gender could produce group learning opportunities. Such a focus on the relational dimension of facilitation can lead to greater empowerment in inter-organizational networks, and potentially in other groups as well. This emphasizes the active role that group members can have in fostering their own trust and effectiveness.

**Trauma-Informed Systems of Care: The Role of Organizational Culture in the Development of Burnout, Secondary Traumatic Stress, and Compassion Satisfaction**


Caregivers who provide services to trauma survivors are at high risk of developing secondary traumatic stress and burnout. Researchers and practitioners in the field of traumatology emphasize the role organizational culture has on individuals who provide services to trauma survivor’s well-being. Although there is a considerable amount of theoretical literature on organizational culture and its effects on trauma workers’ well-being, there is a lack of empirical research. The purpose of this exploratory study was to identify what organizational characteristics influence trauma caregivers’ compassion fatigue and compassion satisfaction. This study used data from a sample of 282 individuals who provide services to survivors of trauma including 67 animal control officers, 102 child, youth, and family service workers, and 113 individuals who work with the homeless. This research supports the literature and found several significant relationships between the independent and dependent variables. Organizational support and trauma-informed caregiver development were found to be strong predictor variables for burnout and secondary traumatic stress. Practical implications are provided addressing the roles that organizational support, supervisory support, peer support, and trauma-informed caregiver development have in the implementation of a trauma-informed system of care.

**Two Routes to Resilience**


Sooner or later companies need to transform themselves in response to market shifts, new technologies, or low-cost start-ups. The authors propose a practical and sustainable approach, which rests on two insights. First, such transformations are really two separate efforts that must happen simultaneously. ‘Transformation A’ adapts the core business to the realities of the disrupted marketplace. ‘Transformation B’ creates a new, disruptive business that will become the company’s next source of growth. Second, the key to making both transformations work is establishing a ‘capabilities exchange,’ a new organizational process that allows the two efforts to share resources without interfering with each other’s operations. This dual approach allows leaders to save as much of the legacy business as they can while also granting the growth business the time it needs to establish itself. What one transformation effort cannot accomplish
alone, two together have a far better chance of achieving. The capabilities exchange requires a five step process – establish leadership, identify the resources the two organizations can or need to share, create exchange teams, protect boundaries, and scale up and promote the new business. Ideally, the repositioned A organization will remain (or become) profitably self-sufficient. But the disruptive business is the source of future growth. Accordingly, if all goes well, the B organization should receive an increasing share of corporate resources and executive attention.

2.0 Familial Resilience

A New Scale for Adolescent Resilience: Grasping the Central Protective Resources Behind Healthy Development


In this study, the Resilience Scale for Adolescents (READ) was developed with confirmatory factor analysis and cross-validated factor model. The results show that the READ has sound psychometric qualities and that it measures all the central aspects of the psychological construct of resiliency.

Annual Research Review: Positive Adjustment to Adversity – Trajectories of Minimal-Impact Resilience and Emergent Resilience


Background: Research on resilience in the aftermath of potentially traumatic life events (PTE) is still evolving. For decades, researchers have documented resilience in children exposed to corrosive early environments, such as poverty or chronic maltreatment. Relatively more recently, the study of resilience has migrated to the investigation of isolated PTE in adults. Methods: In this article, we first consider some of the key differences in the conceptualization of resilience following chronic adversity versus resilience following single-incident traumas, and then describe some of the misunderstandings that have developed about these constructs. To organize our discussion, we introduce the terms emergent resilience and minimal-impact resilience to represent trajectories of positive adjustment in these two domains, respectively. Results: We focused in particular on minimal-impact resilience, and reviewed recent advances in statistical modeling of latent trajectories that have informed the most recent research on minimal-impact resilience in both children and adults and the variables that predict it, including demographic variables, exposure, past and current stressors, resources, personality, positive emotion, coping and appraisal, and flexibility in coping and emotion regulation. Conclusions: The research on minimal-impact resilience is nascent. Further research is warranted with implications for a multiple levels of analysis approach to elucidate the processes that may mitigate or modify the
impact of a PTE at different developmental stages. Keywords: Emergent resilience, minimal-impact resilience, traumatic events, latent growth mixture modeling (LGMM).

Annual Research Review: Resilience – Clinical Implications


Background: It is a universal finding that there is huge heterogeneity in people’s responses to all kinds of stress and adversity. Resilience is an interactive phenomenon that is inferred from findings indicating that some individuals have a relatively good outcome despite having experienced serious adversities. Methods: Resilience can only be inferred if there has been testing of environmental mediation of risks and quantification of the degree of risk. The use of ‘natural experiments’ to test environmental mediation is briefly discussed. The literature is then reviewed on features associated with resilience in terms of (a) those that are neutral or risky in the absence of the risk experience (such as adoption); (b) brief exposure to risks and inoculation effects; (c) mental features (such as planning, self-regulation or a sense of personal agency); (d) features that foster those mental features; (e) turning point effects; (f) gene-environment interactions; (g) social relationships and promotive effects; and (h) the biology of resilience. Results: Clinical implications are considered with respect to (a) conceptual implications; (b) prevention; and (c) treatment. Conclusion: Resilience findings do not translate into a clear programme of prevention and treatment, but they do provide numerous leads that focus on the dynamic view of what may be involved in overcoming seriously adverse experiences.

Annual Research Review: Resilient Functioning in Maltreated Children – Past, Present, and Future Perspectives


Background: Through a process of probabilistic epigenesis, child maltreatment progressively contributes to compromised adaptation on a variety of developmental domains central to successful adjustment. These developmental failures pose significant risk for the emergence of psychopathology across the life course. In addition to the psychological consequences of maltreatment, a growing body of research has documented the deleterious effects of abuse and neglect on biological processes. Nonetheless, not all maltreated children develop maladaptively. Indeed, some percentage of maltreated children develops in a resilient fashion despite the significant adversity and stress they experience. Methods: The literature on the determinants of resilience in maltreated children is selectively reviewed and criteria for the inclusion of the studies are delineated. Results: The majority of the research on the contributors to resilient functioning has focused on a single level of analysis and on psychosocial processes. Multilevel investigations have begun to appear, resulting in several studies on the processes to resilient functioning that integrate biological/genetic and psychological domains. Conclusions: Much additional research on the determinants of resilient functioning must be completed before we
possess adequate knowledge based on a multiple levels of analysis approach that is commensurate with the complexity inherent in this dynamic developmental process. Suggestions for future research on the development of resilient functioning in maltreated children are proffered and intervention implications are discussed.

**Attachment Avoidance Predicts Inflammatory Responses to Marital Conflict**


Marital stress has been associated with immune dysregulation, including increased production of interleukin-6 (IL-6). Attachment style, one’s expectations about the availability and responsiveness of others in intimate relationships, appears to influence physiological stress reactivity and thus could influence inflammatory responses to marital conflict. Thirty-five couples were invited for two 24-h admissions to a hospital research unit. The first visit included a structured social support interaction, while the second visit comprised the discussion of a marital disagreement. A mixed effect within-subject repeated measure model indicated that attachment avoidance significantly influenced IL-6 production during the conflict visit but not during the social support visit. Individuals with higher attachment avoidance had on average an 11% increase in total IL-6 production during the conflict visit as compared to the social support visit, while individuals with lower attachment avoidance had, on average, a 6% decrease in IL-6 production during the conflict visit as compared to the social support visit. Furthermore, greater attachment avoidance was associated with a higher frequency of negative behaviors and a lower frequency of positive behaviors during the marital interaction, providing a mechanism by which attachment avoidance may influence inflammatory responses to marital conflict. In sum, these results suggest that attachment avoidance modulates marital behavior and stress-induced immune dysregulation.

**Children’s Emotional Problems Aggravated by Family Moves**


Family moves occur very frequently in our American society. Family moves can significantly distort existing family adjustments. How does one evaluate the child’s understanding of the family move? It requires some observation of the child’s attitude about exploring the outside world, of the type of ego defenses, and his relative security and comfort within the family group. Behavior, dreams and daydreams of children reveal the ambivalence and regression which frequently develop in the children. The one factor which all of these children reacting to family moves seemed to share in common was an impairment (usually temporary) in their capacity to make effective contact with other human beings; in effect these children became, to a greater or lesser degree, isolated. Methods can be developed which will minimize the traumatic effect of these family moves and which will permit the development of positive attitudes about new
friends and new experiences. Children should be aware of proposed family moves a reasonable period of time in advance of the event. Healthy family relationships are the most significant, stabilizing factor for the child. The presence of mutual friends, the friendly understanding and acceptance of teachers, the acceptance and security within church organizations, and the counsel of a competent family physician can make valuable contributions to the well-being of the child.

**Coping Styles of African-American Youth Living in Poverty**


This thesis from a Master’s candidate at DePaul University explores coping strategies used by African-American youth, and considers the relationship between resiliency and coping. Coping strategies fall into 4 categories: active, social support seeking, distraction, and avoidant. The effectiveness of coping strategies at promoting resilience varies based on the context of the individual and the specifics of the risk they face.

**Global Perspectives on Resilience in Children and Youth**


Global concerns about the consequences of disasters, political violence, disease, malnutrition, maltreatment, and other threats to human development and well-being have sparked a surge of international interest in resilience science. This article highlights progress and issues in research that aims to understand variations in human adaptation to adverse experiences. Two key questions are considered: Why is a new wave of global research on resilience important for developmental science? and Why is developmental science important for global resilience? The conclusion calls for developmental scientists to engage in international efforts to promote resilience.

**How to Talk with Teens about Purpose**


According to Kendall Bronk, a researcher at Claremont Graduate University who studies how purpose impacts well-being throughout the lifespan, young people are hungry for purpose – and without it, they tend to be uninterested in school and more prone to psychological issues down the road. Bronk defines purpose as having a goal in life that you care deeply about and that contributes to the world beyond yourself in some productive sense. During the adolescent high school years, maybe about one in five has found a purpose in life, meaning that they really do know where they’re headed and what they want to accomplish. By the time you get into the
college years, it’s more like one in three, and even more are searching for a purpose. The biggest finding that has emerged is that purpose and depression are very inversely related, and purpose and wellbeing are very much positively correlated. It’s important that young people think about what they enjoy doing, what they really care about. Peter Benson called these ‘sparks’ and just about all young people can identify their sparks. The next thing you have to help them identify is what they value – what bothers or upsets them about the world today, what they really like, what they could see improving upon – and then bring that together by asking them, “How can you use your personal skills or strengths for addressing these problems?” When you hear from a parent, a teacher, a mentor, a neighbor, or a friend, “Here is what gives my life purpose or meaning,” that can seem much more amenable, proximal, and doable. Connecting young people to opportunities to act on their personally meaningful goals is critical.

Mental Health Interventions for Refugee Children in Resettlement


The mission of the National Child Traumatic Stress Network (NCTSN) is to raise the standard of care and improve access to services for traumatized children, their families and communities throughout the United States. The Refugee Trauma Task Force of the NCTSN specifically focuses on refugee children and their families. This White paper is a product of collaborative activities of this Task Force. The purpose of this White Paper II–Interventions is to begin to fill the gap between a relative lack of research on effectiveness of mental health interventions for refugees, and the emerging efforts of agencies that provide services to this population. First, this paper revisits and summarizes the research reported on in White Paper I on the mental health needs of refugee children. Next, we propose that because of the complexity of needs of refugee children described in the literature, a comprehensive mental health services approach is needed. This notion is also supported by the preliminary data gathered from the NCTSN sites providing such services to refugee children (Benson, 2004). The remainder of the paper then focuses on exploring what a comprehensive mental health service model for refugees might look like. We identify necessary components or “key ingredients” of such a comprehensive model, and review the literature for any findings that may support the value of specific approaches or techniques. Finally, we make recommendations for next steps toward improving standards of mental health care for traumatized refugee children.
Mindfulness Training and Classroom Behavior Among Lower-Income and Ethnic Minority Elementary School Children


This field intervention trial evaluated the effect of a 5-week mindfulness-based curriculum on teacher-ratings of student classroom behavior at a Richmond, CA public elementary school, and examined if the addition of more sessions provided added benefit to student outcomes. Seventeen teachers reported on the classroom behaviors of 409 children (83 % enrolled in a California free lunch program and 95.7 % ethnic minority) in kindergarten through sixth grade at pre-intervention, immediate post-intervention, and 7 weeks post-intervention. Results showed that teachers reported improved classroom behavior of their students (i.e., paying attention, self-control, participation in activities, and caring/respect for others) that lasted up to 7 weeks post-intervention. Overall, improvements were not bolstered by the addition of extra sessions, with the exception of paying attention. The implications of this study are limited due to the lack of a mindfulness program-naïve control group, yet findings suggest that mindfulness training might benefit teacher-based perceptions of improved classroom behavior in a public elementary school, which has practice implications for improving the classroom learning environment for lower-income and ethnically-diverse children.

National Household Survey of Adverse Childhood Experience and their Relationship with Resilience to Health-Harming Behaviors in England


Background: Epidemiological and biomedical evidence link adverse childhood experiences (ACEs) with health-harming behaviors and the development of non-communicable disease in adults. Investment in interventions to improve early life experiences requires empirical evidence on levels of childhood adversity and the proportion of HHBs potentially avoided should such adversity be addressed. Methods: A nationally representative survey of English residents aged 18 to 69 (n = 3,885) was undertaken during the period April to July 2013. Individuals were categorized according to the number of ACEs experienced. Modeling identified the proportions of HHBs (early sexual initiation, unintended teenage pregnancy, smoking, binge drinking, drug use, violence victimization, violence perpetration, incarceration, poor diet, low levels of physical exercise) independently associated with ACEs at national population levels. Results: Almost half (47%) of individuals experienced at least one of the nine ACEs. Prevalence of childhood sexual, physical, and verbal abuse was 6.3%, 14.8%, and 18.2% respectively (population-adjusted). After correcting for sociodemographics, ACE counts predicted all HHBs, e.g. (0 versus 4+ ACEs, adjusted odds ratios (95% confidence intervals)): smoking 3.29 (2.54 to 4.27); violence perpetration 7.71 (4.90 to 12.14); unintended teenage pregnancy 5.86 (3.93 to 8.74). Modeling suggested that 11.9% of binge drinking, 13.6% of poor diet, 22.7% of smoking, 52.0% of
violence perpetration, 58.7% of heroin/crack cocaine use, and 37.6% of unintended teenage pregnancy prevalence nationally could be attributed to ACEs. Conclusions: Stable and protective childhoods are critical factors in the development of resilience to health-harming behaviors in England. Interventions to reduce ACEs are available and sustainable, with nurturing childhoods supporting the adoption of health-benefiting behaviors and ultimately the provision of positive childhood environments for future generations.

Practitioner Review: Diagnosing Childhood Resilience – A Systematic Approach to the Diagnosis of Adaptation in Adverse Social and Physical Ecologies


Background: With growing interest in resilience among mental health care providers globally, there is a need for a simple way to consider the complex interactions that predict adaptive coping when there is exposure to high levels of adversity such as family violence, mental illness of a child or caregiver, natural disasters, social marginalization, or political conflict. Methods: This article presents diagnostic criteria for assessing childhood resilience in a way that is sensitive to the systemic factors that influence a child's wellbeing. The most important characteristics of children who cope well under adversity and avoid problems like depression, PTSD, and delinquency are highlighted. Results: A multidimensional assessment of resilience is presented that examines, first, the severity, chronicity, ecological level, children's attributions of causality, and cultural and contextual relevance of experiences of adversity. Second, promotive and protective factors related to resilience are assessed with sensitivity to the differential impact these have on outcomes depending on a child's level of exposure to adversity. These factors include individual qualities like temperament, personality, and cognitions, as well as contextual dimensions of positive functioning related to the available and accessibility of resources, their strategic use, positive reinforcement by a child's significant others, and the adaptive capacity of the environment itself. Third, an assessment of resilience includes temporal and cultural factors that increase or decrease the influence of protective factors. A decision tree for the diagnosis of resilience is presented, followed by a case study and diagnosis of a 15-year-old boy who required treatment for a number of mental health challenges. Conclusions: The diagnostic criteria for assessing resilience and its application to clinical practice demonstrate the potential usefulness of a systemic approach to understanding resilience among child populations.

Raising Optimistic Children


Optimism is important in many areas of life, such as work, health, and relationships. People with a positive outlook tend to live longer, have more stable relationships, experience less stress, and have fewer illnesses. Plus, optimists are more likely than pessimists to employ the persistence often required for success, and optimistic teams have been shown to perform better than pessimistic ones. While a positive outlook may seem to come more naturally to some children
than others, there are ways that parents can steer their children toward optimism. You can raise an optimistic child by setting your child up to find happiness, helping your child discover a sense of control, and, of course, setting a positive example.

Resilience Theory: A Literature Review


The importance of cultural identity or ethnic schema has been highlighted as an important ingredient in resilience particularly for individuals from minority or oppressed cultures. It is argued that when these cultural values are taught, cherished and nurtured in children these children develop natural resilience. ‘Racial socialism’ is held to mean the interpersonal transmission of values about one’s culture. It is identified that the African American cultural strengths include dependence on helpful extended relatives, transmission of cultural childrearing values, influence of a religious worldview, and family communication about surviving societal racism struggles, educational achievement, and black pride and culture. There are seven main African American family values: 1) respect to people who are older or more senior; 2) believing oneself to be responsible for others, beyond one’s immediate family; 3) giving back to one’s family and community in return for what has been received from them; 4) putting one’s own needs on hold in order to accommodate the needs of others; 5) a reverence for God, for the ancestors, for spirituality; 6) working towards solutions through reasonable dialogue rather than impulsive action; and 7) the importance of being reconciled with one’s neighbor. These seven R’s represent African family values that have supported kinship structures (lineages, compounds, and extended families) that have lasted for hundreds, even thousands, of years.

Resiliency Factors in the Relations Between Childhood Sexual Abuse and Adulthood Sexual Assault in College-Age Women


Research has suggested that childhood sexual abuse (CSA) may be a risk factor for adulthood sexual assault. This study examined associations between CSA experiences, cognitive resiliency variables, and revictimization. Participants were 73 college-age females who completed self-report questionnaires assessing CSA, adult assault, self-efficacy, locus of control (LOC), and coping styles. Sexual assault was categorized as forced or coerced assault based on the tactics used by the perpetrator. Results indicated that CSA alone was the strongest independent predictor of forced adult assault; however, LOC and positive coping were associated with resiliency to coercive sexual assault. The current findings have clinical implications in that LOC and coping styles are characteristics that can be enhanced through therapy.
Social Support, Social Strain, Loneliness, and Well-Being Among Older Adults: An Analysis of the Health and Retirement Study


This study proposed that, among older adults, higher support and lower strain received from each of the four relational sources (spouse/partner, children, family, and friends) were associated with reduced loneliness and improved well-being and that loneliness might mediate the relationship between support/strain and well-being. Structural equation modeling was conducted using a national sample of adults aged 50 years and older (N = 7,367) from the Health and Retirement Study. Findings indicated that support from spouse/partner and friends alleviated loneliness, while strain from all the four sources intensified loneliness; higher support and lower strain from various sources directly and indirectly improved well-being, with indirect effects mediated through reduced loneliness. It was concluded that, in later life, various sources of support/strain engender distinct effects on loneliness and well-being, and loneliness serves as one of the psychological pathways linking support/strain to well-being.

The Construct of Resilience: A Critical Evaluation and Guidelines for Future Work


This study proposed that, among older adults, higher support and lower strain received from each of the four relational sources (spouse/partner, children, family, and friends) were associated with reduced loneliness and improved well-being and that loneliness might mediate the relationship between support/strain and well-being. Structural equation modeling was conducted using a national sample of adults aged 50 years and older (N = 7,367) from the Health and Retirement Study. Findings indicated that support from spouse/partner and friends alleviated loneliness, while strain from all the four sources intensified loneliness; higher support and lower strain from various sources directly and indirectly improved well-being, with indirect effects mediated through reduced loneliness. It was concluded that, in later life, various sources of support/strain engender distinct effects on loneliness and well-being, and loneliness serves as one of the psychological pathways linking support/strain to well-being.
The Role of Socialization, Effortful Control, and Ego Resiliency in French Adolescents Social Functioning


The relations among effortful control, ego resiliency, socialization, and social functioning were examined with a sample of 182 French adolescents (14–20 years old). Adolescents, their parents, and/or teachers completed questionnaires on these constructs. Effortful control and ego resiliency were correlated with adolescents' social functioning, especially with low externalizing and internalizing behaviors and sometimes with high peer competence. Furthermore, aspects of socialization (parenting practices more than family expressiveness) were associated with adolescents' effortful control, ego resiliency, and social functioning. Effortful control and ego resiliency mediated the relations between parental socialization and adolescents' peer competence and internalizing problems. Furthermore, effortful control mediated the relations between socialization and adolescents' externalizing behavior. Findings are discussed in terms of cultural and developmental variation.

The Stories that Bind Us


The single most important thing you can do for your family may be the simplest of all: develop a strong family narrative. The more children knew about their family’s history, the stronger their sense of control over their lives, the higher their self-esteem, and the more successfully they believed their families functioned. Psychologists have found that every family has a unifying narrative which takes one of three shapes. First, the ascending family narrative: “Son, when we came to this country, we had nothing. Our family worked. We opened a store. Your grandfather went to high school. Your father went to college. And now you…” Second is the descending narrative: “Sweetheart, we used to have it all. Then we lost everything.” The most healthful narrative is the third one. It’s called the oscillating family narrative: “Dear, let me tell you, we’ve had ups and downs in our family. We build a family business. Your grandfather was a pillar of the community. Your mother was on the board of the hospital. But we also had setbacks. You had an uncle who was once arrested. We had a house burn down. Your father lost a job. But no matter what happened, we always stuck together as a family.” Children who have the most self-confidence have a strong intergenerational self. They know they belong to something bigger than themselves. Any number of occasions works to convey a sense of history: holidays, vacations, big family get-togethers or even ride to a mall. Decades of research have shown that most happy families communicate effectively.
The Study of Stress and Competence in Children: A Building Block for Developmental Psychopathology


This article discusses the building blocks for a developmental psychopathology, focusing on studies of risk, competence, and protective factors. The current Project Competence studies of stress and competence are described, with particular attention to the methodology and strategies for data analysis. The authors present a 3-model approach to stress resistance in a multivariate regression framework: the compensatory, challenge, and protective factor models. These models are illustrated by selected data. In the concluding section, an evaluation of the project is offered in terms of future directions for research.

Third Culture Kids and the Consequences of International Sojourns on Authoritarianism, Acculturative Balance, and Positive Affect


Third culture kids (TCKs) are the children of parents who live abroad in foreign countries. In this study we examined a population of US TCKs (N = 170) who have repatriated back to the US. We studied the factors that led TCKs to positive and less positive repatriation outcomes, including a focus on the variables of authoritarianism, acculturative balance, and positive affect. Multiple repatriations (i.e., parents moving back to the US between jobs) were related negatively to positive affect in men, and increased levels of authoritarianism in women. On the other hand, postings to multiple countries decreased authoritarianism for both women and men. TCKs who seemed comfortable balancing living abroad and in the US reported both good relationships with their parents and positive affect. Because they live in multicultural environments, TCKs are an important demographic to study in a rapidly globalizing world.
3.0 Military Resilience

3.1 Community Resilience in the Military

An Evaluation of the Implementation and Perceived Utility of the Airman Resilience Training Program


Airman Resilience Training (ART) is a psychoeducational program that aims to provide deploying airmen with tools and techniques to improve their ability to cope with stressful events and to facilitate their smooth reentry into work and family life upon returning from deployment. This study has two objectives: (1) to ascertain the extent to which ART was being implemented according to its original design and (2) to gauge its potential usefulness and value as perceived by deploying and reintegrating airmen and mental health professionals. This study does not directly evaluate the program’s effectiveness in promoting resilience. Instead, the study is an implementation evaluation, which aims to describe how ART is being implemented and to provide insight into its potential to meet its intended goals of improving resilience, reducing stress, and improving help-seeking behavior among airmen. To fulfill the study’s objectives, the RAND team employed a case study design in which we observed the delivery of ART and conducted interviews and discussion sessions in four Air Force installations that utilize ART. The findings showed that implementation of ART varied across and within the sites and that the perceived usefulness of ART was generally low. Suggestions for improvement include conducting assessments to identify appropriate goals for ART, implement strategies for ongoing quality-improvement of ART, and to modify the content of ART. These suggestions could improve the Air Force’s resilience training by creating a program that is more engaging, skills-focused, targeted to those at risk, and memorable, while placing less of a workload on mental health care providers.

Building Social Resilience in Soldiers: A Double Dissociative Randomized Controlled Study


Can social resilience be trained? We report results of a double-dissociative randomized controlled study in which 48 Army platoons were randomly assigned to social resilience training (intervention condition) or cultural awareness training (active control group). The same surveys were administered to all platoons at baseline and after the completion of training to determine the short-term training effects, generalization effects beyond training, and possible adverse effects. Multilevel modeling analyses indicated that social resilience, compared with cultural awareness, training produced small but significant improvements in social cognition (e.g., increased
empathy, perspective taking, & military hardness) and decreased loneliness, but no evidence was found for social resilience training to generalize beyond these training foci nor to have adverse effects. Moreover, as predicted, cultural awareness, compared with social resilience, training produced increases in knowledge about and decreases in prejudice toward Afghans. Additional research is warranted to determine the long-term durability, safety, and generalizability of social resilience training.

**Does Comprehensive Soldier Fitness Work?**


This paper is published in the Coalition for Ethical Psychology. The purpose of this paper is to evaluate the efficacy of the Comprehensive Soldier Fitness Plan (CSF). CSF falls short in several areas including: failure to measure outcomes of mental disorders, flawed research methods that don’t control significant variables, flawed data analysis, and failure to acknowledge risks of CSF intervention.

**Modifying Resilience Mechanisms in At-Risk Individuals: A Controlled Study of Mindfulness Training in Marines Preparing for Deployment**


Marines who had first received Mindfulness-Based Mind Fitness Training, which can affect brain structures integral to the body’s response to stress, experienced quicker heart rate and breathing rate recovery, improved sleep quality, and lower levels of neuropeptide Y after stressful combat training than a comparison group without the intervention. Objective: Military deployment can have profound effects on physical and mental health. Few studies have examined whether interventions prior to deployment can improve mechanisms underlying resilience. Mindfulness-based techniques have been shown to aid recovery from stress and may affect brain-behavior relationships prior to deployment. The authors examined the effect of mindfulness training on resilience mechanisms in active-duty Marines preparing for deployment. Method: Eight Marine infantry platoons (N=281) were randomly selected. Four platoons were assigned to receive mindfulness training (N=147) and four were assigned to a training-as-usual control condition (N=134). Platoons were assessed at baseline, 8 weeks after baseline, and during and after a stressful combat training session approximately 9 weeks after baseline. The mindfulness training condition was delivered in the form of 8 weeks of Mindfulness-Based Mind Fitness Training (MMFT), a program comprising 20 hours of classroom instruction plus daily homework exercises. MMFT emphasizes interoceptive awareness, attentional control, and tolerance of present-moment experiences. The main outcome measures were heart rate, breathing rate, plasma neuropeptide Y concentration, score on the Response to Stressful Experiences Scale,
and brain activation as measured by functional MRI. Results: Marines who received MMFT showed greater reactivity (heart rate \([d=0.43]\)) and enhanced recovery (heart rate \([d=0.67]\), breathing rate \([d=0.93]\)) after stressful training; lower plasma neuropeptide Y concentration after stressful training \((d=0.38)\); and attenuated blood-oxygen-level-dependent signal in the right insula and anterior cingulate. Conclusions: The results show that mechanisms related to stress recovery can be modified in healthy individuals prior to stress exposure, with important implications for evidence-based mental health research and treatment.

Moving Forward: A Problem-Solving Training Program to Foster Veteran Resilience


It is vital for mental health professionals serving veterans to be able to address the full range of needs presented by returning veterans, including those that affect a veterans’ daily life (e.g., relationships, employment, and community functioning) but may not rise to the level of requiring specialty mental health care. This article describes the development and evaluation of an innovative Veterans Affairs program, Moving Forward, which focuses on building resilience and reducing emotional distress. Moving Forward is based on the principles of problem-solving therapy that have been adapted for use in a four-session, classroom-based training program for veterans. The program evaluation results indicate that Moving Forward is feasible, well-received by veterans, and yields improvements in social problem solving, resilience, and overall distress levels. Although there is a strong evidence base for problem-solving therapy in a range of clinical settings and with a variety of patient populations (Nezu et al., 2013), this represents the first effort to apply these principles in a program focusing on the readjustment and resilience of our nation’s veterans. We include several recommendations for building on these results, including the use of Internet-based training, inclusion of family members in training, and recommendations for research in this important area.

Promoting Psychological Resilience in the U.S. Military


Psychological resilience refers to the process of coping with or overcoming exposure to adversity or stress. To assist DoD in understanding factors and methodologies that are informed by social and psychological research and may be useful in promoting psychological resilience in service members and their families, RAND NDRI conducted a study to identify evidence-informed practices for promoting factors that foster psychological resilience. The study also assessed selected resilience programs to determine whether they incorporated evidence-informed practices to promote resilience and includes a literature review and a program review. The factors that
promote resilience and findings from the literature review had a twofold purpose: (1) to identify evidence-informed factors that promote psychological resilience and (2) to assess the strength of the evidence base associated with each factor. Next, we examined the extent to which these evidence-informed factors were reflected in resilience-promotion programs relevant to DoD. We conducted interviews with representatives from 23 relevant programs and gathered information about their structure, barriers to implementation and operation that they face, and how the programs assess their effectiveness. Recommendations for policy and programs include defining resilience, integrating resilience programming into policy and doctrine, strengthening existing programs, standardizing resilience measures to enable program comparison, providing military members and their families guidance about the different resilience programs available, incorporating evidence-based resilience factors, engaging senior military leaders, adopting a flexible curriculum, and conducting more rigorous program evaluations. In general, studies of resilience in the military should enhance scientific rigor by conducting more RCT’s and longitudinal studies that span the phases of deployment.

Psychological Fitness


The dramatic increase in psychological demands associated with current military operations makes psychological fitness of our military personnel more vital than ever. Psychological fitness is defined as the integration and optimization of mental, emotional, and behavioral abilities and capabilities to optimize performance and strengthen the resilience of warfighters. The present article proposes a military demand-resource (MDR) model as a comprehensive and integrated model of psychological fitness for the total force. The model emphasizes the importance of identifying military-driven and evidence-informed variables, and selecting operational outcome measures for resilience and performance. The model integrates the roles of internal (personal) and external (environmental) resources specifically for developing, sustaining, and restoring psychological resources, similar to the maintenance of physical fitness and health. Equal attention to the psychological component is critical for achieving the mind-body balance as desired in a total force fitness framework for military forces today.

Total Force Fitness in Units Part 1: Military Demand-Resource Model


The military unit is a critical center of gravity in the military’s efforts to enhance resilience and the health of the force. The purpose of this article is to augment the military’s Total Force Fitness (TFF) guidance with a framework of TFF in units. The framework is based on a Military Demand-Resource model that highlights the dynamic interactions across demands, resources, and outcomes. A joint team of subject-matter experts identified key variables representing unit
fitness demands, resources, and outcomes. The resulting framework informs and supports leaders, support agencies, and enterprise efforts to strengthen TFF in units by (1) identifying TFF unit variables aligned with current evidence and operational practices, (2) standardizing communication about TFF in units across the Department of Defense enterprise in a variety of military organizational contexts, (3) improving current resources including evidence-based actions for leaders, (4) identifying and addressing of gaps, and (5) directing future research for enhancing TFF in units. These goals are intended to inform and enhance Service efforts to develop Service-specific TFF models, as well as provide the conceptual foundation for a follow-on article about TFF metrics for units.

Unit Cohesion, Resilience, and Mental Health of Soldiers in Basic Combat Training


Military unit cohesion has been shown to correlate with physical and psychological outcomes. However, little is known about the development of cohesion in the early days of military service during Basic Combat Training (BCT) and how it relates to positive support and the negative stressors of training. The current study assessed the development of unit cohesion across the 10-week BCT period (N = 1,939), and the relation of cohesion to stress, resilience, mental health measures, and BCT outcomes (graduation, passing the Army Physical Fitness Test, and final Basic Rifle Marksmanship scores). The sample was primarily male (62%), under age 25 (88%), and unmarried (88%). All putative mediators showed significant change over time. Unit cohesion increased over time (slope 0.22; p < .001), and these increases were associated with decreases in psychological distress (p < .001), sleep problems (p < .001), and tolerance of BCT stressors (p < .001), as well as increases in resilience (p < .001), confidence managing stress reactions (p < .001), and positive states of mind (p < .001). Unit cohesion was indirectly associated with successful graduation and passing the Army Physical Fitness Test through cohesion-related improvement in psychological distress, resilience, and confidence managing reactions to stress. Sleep problems also mediated BCT graduation. Cohesion effects on the Basic Rifle Marksmanship scores were mediated by psychological distress and tolerance of BCT stressors only. These results suggest that unit cohesion may play a key role in the development of psychological health among new soldiers.
3.2 Familial Resilience in the Military

Building the Resilience of your Military Family


Resilience is the ability to withstand, overcome, and adapt in positive ways to an immediate crisis or an ongoing challenge. Being resilient doesn’t mean that a person avoids emotional pain and suffering when faced with a crisis. Instead, it means that he or she is able to recover and perhaps grow even stronger from the experience. Characteristics of resilient families include: making meaning of adversity, having a positive outlook, flexibility, connectedness, social and economic resources, transcendence and spirituality, open emotional sharing, clarity, and collaborative problem solving. A family’s resilience can be increased through making connections, avoid seeing crises as insurmountable problems, accepting that change is part of living, moving toward your goals, taking decisive actions, looking for opportunities for self-discovery, nurturing a positive view of self, keeping things in perspective, maintaining a hopeful outlook, and taking care of yourself. If you feel that your ability to function and take care of your everyday responsibilities is impaired, then it’s important for you to get help from a mental health professional.

Evaluation of a Family-Centered Preventive Intervention for Military Families: Parent and Child Longitudinal Outcomes


Objective: This study evaluates the longitudinal outcomes of Families Over Coming Under Stress (FOCUS), a family-centered preventive intervention implemented to enhance resilience and to reduce psychological health risk in military families and children who have high levels of stress related to parental wartime military service. Method: We performed a secondary analysis of evaluation data from a large-scale service implementation of the FOCUS intervention collected between July 2008 and December 2013 at 15 military installations in the United States and Japan. We present data for 2,615 unique families (3,499 parents and 3,810 children) with completed intake and at least 1 post intervention assessment. Longitudinal regression models with family-level random effects were used to assess the patterns of change in child and parent (civilian and military) psychological health outcomes over time. Results: Improvement in psychological health outcomes occurred in both service member and civilian parents. Relative to intake, parental anxiety and depression symptoms were significantly reduced post intervention, and these reductions were maintained at 2 subsequent follow-up assessments. In addition, we identified an improvement over time in emotional and behavioral symptoms and in prosocial behaviors for both boys and girls. We observed reductions in the prevalence of unhealthy family
functioning and child anxiety symptoms, as well as parental depression, anxiety, and posttraumatic stress symptoms from intake to follow-up. Conclusion: Longitudinal program evaluation data show sustained trajectories of reduced psychological health risk symptoms and improved indices of resilience in children, civilian, and active duty military parents participating in a strength-based, family-centered preventive intervention.

Family Resilience in the Military


Definitions of family resilience vary among the services; there is no officially recognized DoD-wide definition. As of early 2015, DoD had 26 policies related to family resilience. To facilitate a comprehensive view of family resilience programming across DoD, a well-defined, well-articulated definition of a family-resilience program is necessary. The most common family resilience factors—that is, the resources that families use to cope with stress—can be grouped into five domains: family belief system, family organization patterns, family support system, family communication/problem-sharing, and the physical and psychological health of individual family members.

The Deployment Life Study


In 2009, the RAND Corporation launched the Deployment Life Study, a longitudinal study of military families across a deployment cycle. This culminating report reviews the study design and data collection procedures, then presents results from analyses of the data collected from some 2,700 military families, focusing on marital relationships, family environment, psychological and behavioral health, child well-being, and military integration.

The Resiliency Playbook


The Resiliency Playbook is a small handbook published for Club Beyond explaining how military teens can become more resilient, provides resilience self-assessment tools, and explains why resilience matters. Key points include: working through current obstacles prepares people for future challenges; resilience involves traits like optimism, enthusiasm, belief, integrity, calmness, courage, confidence, determination, patience, and focus; and in order to strengthen resilience, people must reflect on their current state of resilience.
The military lifestyle can create formidable challenges for military families. This article describes the Military Family Fitness Model (MFFM), a comprehensive model aimed at enhancing family fitness and resilience across the life span. This model is intended for use by Service members, their families, leaders, and health care providers but also has broader applications for all families. The MFFM has three core components: (1) family demands, (2) resources (including individual resources, family resources, and external resources), and (3) family outcomes (including related metrics). The MFFM proposes that resources from the individual, family, and external areas promote fitness, bolster resilience, and foster well-being for the family. The MFFM highlights each resource level for the purpose of improving family fitness and resilience over time. The MFFM both builds on existing family strengths and encourages the development of new family strengths through resource-acquiring behaviors. The purpose of this article is to (1) expand the military's Total Force Fitness (TFF) intent as it relates to families and (2) offer a family fitness model. This article will summarize relevant evidence, provide supportive theory, describe the model, and proffer metrics that support the dimensions of this model.

3.3 Leadership Resilience in the Military

Leaders’ Guide for Building Personal Readiness and Resilience

Army National Guard, Department of the Army, & United States Army Reserve. (2016). Leaders’ guide for Building Personal Readiness and Resilience.

The purpose of this guide is to highlight the impact of Ready and Resilient principles and Army Values on Personal and Mission Readiness. It is intended to be a user friendly, “living document” geared toward offering leaders supported insight into the identification of the influencing factors that affect Soldiers’ lives; their personal readiness and resiliency; unit level personnel readiness; and the unit’s ability to accomplish its mission. This guide, the Leaders’ Guide for Building Personal Readiness and Resilience presents a vision of an Army built on a Culture of Trust, with Soldiers building strength and confidence in one another through proactive application of these principles, practices and qualities. It describes the strengthening influence of recognized protective factors in many facets of Soldiers’ and Army Families’ lives. It addresses legal issues associated with protecting personal information such as those defined within the Health Insurance Portability and Accountability Act of 1996. Leaders need to be aware of these things in order to maintain the highest level of unit readiness, personnel readiness and their individual Soldiers’ ability to perform their duties. It features the role of active engagement in identifying early indicators of potential self-defeating risk behaviors, and in preventing their destructive outcomes through graduated intervention before the risk behavior is acted out –
getting “left of the boom.” To help leaders recognize early indicators of trouble, this guide discusses a host of risk factors and warning signs (see pages 16 through 21 for risk factors and pages 29 through 31 for warning signs) and shows that many risk behaviors share a common set of the same risk factors and warning signs. Since many risk behaviors can have severe personal, family, and mission readiness impacts, this guide provides detailed guidance on legal and administrative requirements for addressing, mitigating where possible, and managing the effects of some of these risk behaviors. Finally, this tool recognizes the humanity of us all and speaks plainly to the emotional dimension of recovering from traumatic incidents that sometimes play out in Soldiers’ lives. The Army R2 Community stands ready to address your concerns and provide the necessary resources tailored to assist you in meeting the many challenges and requirements you face daily in managing the Army’s greatest resource, its Soldiers.

**Leadership, Cohesion, Morale, and the Mental Health of UK Armed Forces in Afghanistan**


UK Armed Forces (AF) personnel deployed to Afghanistan are frequently exposed to intense combat and yet little is known about the short-term mental health consequences of this exposure and the potential mitigating effects of military factors such as cohesion, morale, and leadership. To assess the possible modulating influence of cohesion, morale, and leadership on post-traumatic stress disorder (PTSD) symptoms and common mental disorders resulting from combat exposure among UK AF personnel deployed to Afghanistan, UK AF personnel, during their deployment to Afghanistan in 2010, completed a self-report survey about aspects of their current deployment, including perceived levels of cohesion, morale, leadership, combat exposure, and their mental health status. Outcomes were symptoms of common mental disorder and symptoms of PTSD. Combat exposure was associated with both PTSD symptoms and symptoms of common mental disorder. Of the 1,431 participants, 17.1% reported caseness levels of common mental disorder, and 2.7% were classified as probable PTSD cases. Greater self-reported levels of unit cohesion, morale, and perceived good leadership were all associated with lower levels of common mental disorder and PTSD. Greater levels of unit cohesion, morale, and good leadership may help to modulate the effects of combat exposure and the subsequent development of mental health problems among UK Armed Forces personnel deployed to Afghanistan.

**Mind Fitness: Improving Operational Effectiveness and Building Warrior Resilience**


Mind fitness training can immunize against stress by buffering the cognitive degradation of stress inoculation training and by permitting more adaptive responses to and interpretation of stressors. Mind fitness training can also enhance warrior performance by cultivating competencies critical for today’s security environment. Beyond its immediate effects for
managing stress and enhancing mission performance, mind fitness training is protective: it builds resiliency and leads to faster recovery from cognitive degradation and psychological injury. While warriors may choose to engage in mind fitness exercises to optimize their performance downrange, the protective effects will still be accruing – likely leading to a decrease in psychological injury upon returning home. As a result, mind fitness training could reduce the number of warriors in need of professional help and thereby reduce caregiver burnout among Armed Forces’ chaplains and medical and mental health professionals. Mind fitness training’s beneficial effects could continue long after the deployment is over, increasing the likelihood that warriors will be ready, willing, and able to deploy again when needed.

Psychological Hardiness Predicts Adaptability in Military Leaders: A Prospective Study


To perform effectively in complex mission environments, security personnel and leaders must be flexible and adaptable in responding to rapidly changing conditions. Psychological hardiness marks resilient people who maintain their health and performance despite stressful situations. The present study evaluates psychological hardiness at entry to West Point military academy as a predictor of leader performance and adaptability over time. Predictors also included Scholastic Aptitude Test (SAT) scores, and a composite indicator of leader potential (Whole Candidate Score) taken from admissions records. Using the Pulakos adaptability taxonomy as a guide, adaptability performance items were taken from a survey of graduate’s given 3 years after graduation. Also, military leadership grades as West Point seniors provided an index of traditional military performance. Hierarchical regression analyses showed that Whole Candidate Scores predict military leader performance at West Point, but not leader adaptability after graduation. However, hardiness predicts leader performance at West Point, and also leader adaptability (self- and supervisor ratings) after graduation. SAT scores and the challenge facet of hardiness are negative predictors of leader performance at West Point. Results indicate that while the traditional measures Whole Candidate Score predict leader performance in the stable, highly regulated environment of West Point, it does not predict leader adaptability and performance in the uncertain environment of real-world operations. In contrast, psychological hardiness (commitment and control facets) measured as academy freshman predicts leader adaptability in officers measured 7 years later. Psychological hardiness appears to be a promising factor in promoting the development of adaptability.

Relevance of Hardiness Assessment and Training to the Military Context


Hardiness is a pattern of attitudes and skills that provides the courage and strategies to turn stressful circumstances from potential disasters into growth opportunities instead. As such,
hardiness is particularly relevant to inherently stressful settings, such as military service. First, theory and research on hardiness assessment and training is summarized in a manner that highlights relevance to stressful situations. Discussed then are likely applications of hardiness assessment and training in particular military contexts, such as selection and preparation for Special Forces or other extreme assignments, and treatment of combat-related physical and mental disabilities.

The Protective Value of Hardiness on Military Posttraumatic Stress Symptoms


This study examined the protective effects of hardiness (dispositional resilience) on self-reported posttraumatic stress disorder (PTSD) symptoms in a sample of postdeployed service members. Hardiness was negatively related to PTSD symptoms. Time in the military, number of deployments, and total time spent on deployment were all positively related to PTSD symptoms. Hardiness moderated the effects of time in the military on PTSD symptoms, such that time in the military had no effect on those who were high in hardiness. Hardiness did not moderate the effects of either deployment measure. Suggestions to modify current military resilience training programs to most effectively enhance the benefits of hardiness are discussed.

3.4 Military PTSD

Altered Default Mode Network (DMN) Resting State Functional Connectivity Following a Mindfulness-Based Exposure Therapy for Posttraumatic Stress Disorder (PTSD) in Combat Veterans of Afghanistan and Iraq


Background: Recent studies suggest that mindfulness may be an effective component for posttraumatic stress disorder (PTSD) treatment. Mindfulness involves practice in volitional shifting of attention from “mind wandering” to present moment attention to sensations, and cultivating acceptance. We examined potential neural correlates of mindfulness training using a novel group therapy (mindfulness-based exposure therapy (MBET)) in combat veterans with PTSD deployed to Afghanistan (OEF) and/or Iraq (OIF). Methods: Twenty-three male OEF/OIF combat veterans with PTSD were treated with a mindfulness based intervention (N = 14) or an active control group therapy (present-centered group therapy (PCGT), N = 9). Pre-post therapy functional magnetic resonance imaging (fMRI, 3 T) examined resting-state functional connectivity (rsFC) in default mode network (DMN) using posterior cingulate cortex (PCC) and
ventral medial prefrontal cortex (vmPFC) seeds, and salience network (SN) with anatomical amygdala seeds. PTSD symptoms were assessed at pre- and post-therapy with Clinician Administered PTSD Scale (CAPS). Results: Patients treated with MBET had reduced PTSD symptoms (effect size d = 0.92) but effect was not significantly different from PCGT (d = 0.46). Increased DMN rsFC (PCC seed) with dorsolateral dorsolateral prefrontal cortex (DLPFC) regions and dorsal anterior cingulate cortex (ACC) regions associated with executive control was seen following MBET. A group × time interaction found MBET showed increased connectivity with DLPFC and dorsal ACC following therapy; PCC–DLPFC connectivity was correlated with improvement in PTSD avoidant and hyperarousal symptoms. Conclusions: Increased connectivity between DMN and executive control regions following mindfulness training could underlie increased capacity for volitional shifting of attention. The increased PCC–DLPFC rsFC following MBET was related to PTSD symptom improvement, pointing to a potential therapeutic mechanism of mindfulness-based therapies.

**Associations of Postdeployment PTSD Symptoms with Predeployment Symptoms in Iraq-Deployed Army Soldiers**


Prior to deployment, military personnel may experience a range of symptoms typically associated with posttraumatic stress disorder (PTSD); however, the relationship of specific preexisting symptoms characteristic of PTSD to postdeployment PTSD symptoms is not well understood. This prospective study examined (a) pre- to postdeployment changes in re-experiencing, avoidance, numbing, and hyperarousal symptoms among Iraq-deployed military personnel, and (b) pre- to postdeployment associations among these symptom groupings. Seven-hundred and seventy-four U.S. Army soldiers completed the PTSD Checklist pre- and postdeployment to Iraq. Participants demonstrated increases in re-experiencing, avoidance, and hyperarousal symptom severity but not in severity of numbing symptoms from pre- to postdeployment. Predeployment numbing was positively correlated with all postdeployment symptom clusters, and predeployment hyperarousal was positively correlated with postdeployment hyperarousal, re-experiencing, and numbing. Findings highlight the role of preexisting numbing and hyperarousal symptoms in the evolution of PTSD symptoms following trauma exposure.

**Clinical Case Series: Treatment of PTSD with Transcendental Meditation in Active Duty Military Personnel**

Active duty U.S. Army Service Members previously diagnosed with post-traumatic stress disorder (PTSD) were selected from review of patient records in the Traumatic Brain Injury Clinic at the Department of Defense Eisenhower Army Medical Center at Fort Gordon in Augusta, Georgia. Patients agreed to practice the Transcendental Meditation (TM) technique for 20 minutes twice a day for the duration of a 2-month follow-up period. Three cases are presented with results that show the feasibility of providing TM training to active duty soldiers with PTSD in a Department of Defense medical facility. Further investigation is suggested to determine if a TM program could be used as an adjunct for treatment of PTSD. Impact of this report is expected to expand the complementary and alternative evidence base for clinical care of PTSD.

Effect of Attention Training on Attention Bias Variability and PTSD Symptoms: Randomized Controlled Trials in Israeli and U.S. Combat Veterans


Objective: Attention allocation to threat is perturbed in patients with posttraumatic stress disorder (PTSD), with some studies indicating excess attention to threat and others indicating fluctuations between threat vigilance and threat avoidance. The authors tested the efficacy of two alternative computerized protocols, attention bias modification and attention control training, for rectifying threat attendance patterns and reducing PTSD symptoms. Method: Two randomized controlled trials compared the efficacy of attention bias modification and attention control training for PTSD: one in Israel Defense Forces veterans and one in U.S. military veterans. Both utilized variants of the dot-probe task, with attention bias modification designed to shift attention away from threat and attention control training balancing attention allocation between threat and neutral stimuli. PTSD symptoms, attention bias, and attention bias variability were measured before and after treatment. Results: Both studies indicated significant symptom improvement after treatment, favoring attention control training. Additionally, both studies found that attention control training, but not attention bias modification, significantly reduced attention bias variability. Finally, a combined analysis of the two samples suggested that reductions in attention bias variability partially mediated improvement in PTSD symptoms. Conclusions: Attention control training may address aberrant fluctuations in attention allocation in PTSD, thereby reducing PTSD symptoms. Further study of treatment efficacy and its underlying neurocognitive mechanisms is warranted.
How Do Morally Injurious Events Occur? A Qualitative Analysis of Perspectives of Veterans with PTSD


Morally injurious events (MIEs) represent a distinct type of trauma that veterans might confront in the context of their war-zone service. However, there is little research on contextual factors that may contribute to MIEs in this population. As such, the present study examined the possible circumstances of MIEs by probing into the perspectives of 14 veterans from the Iraq/Afghanistan era who were in the final month of completing an intensive residential treatment program for PTSD. Drawing on emerging research findings and clinical knowledge on moral injury, semistructured interviews were conducted to inquire about the veterans’ explanations for why MIEs occurred during their war-zone deployments. Content analytic procedures yielded a total of 25 distinct themes that comprised 4 higher order clusters – (a) organizational circumstances, (b) environmental circumstances, (c) cultural and relational circumstances, and (d) psychological circumstances. Findings are discussed in relation to emerging conceptions of moral injury in the military trauma literature and possible applications for future research and clinical practice with morally injured veterans.

Influence of Personal and Environmental Factors on Mental Health in a Sample of Austrian Survivors of World War II with Regard to PTSD


Background: War-related traumata in childhood and young-adulthood may have long-lasting negative effects on mental health. The focus of recent research has shifted to examine positive adaption despite traumatic experiences, i.e. resilience. We investigated personal and environmental factors associated with resilience in a sample of elderly Austrians (N = 293) who reported traumatic experiences in early life during World War II and subsequent occupation (1945–1955). Methods: After reviewing different concepts of resilience, we analyzed our data in a 3-phased approach: Following previous research approaches, we first investigated correlates of PTSD and non-PTSD. Secondly, we compared a PTSD positive sample (sub-threshold and full PTSD, n = 42) with a matched control sample regarding correlates of resilience and psychometrically assessed resilience (CD-RISC). Thirdly, we examined factors of resilience, discriminating between psychologically healthy participants who were exposed to a specific environmental stressor (having lived in the Soviet zone of occupation during 1945–1955) from those who were not. Results: A smaller number of life-time traumata (OR = 0.73) and a medium level of education (OR = 2.46) were associated with better outcome. Matched PTSD and non-PTSD participants differed in psychometrically assessed resilience mainly in aspects that were directly related to symptoms of PTSD. Psychologically healthy participants with an environmental stressor in the past were characterized by a challenge-oriented and humorous
attitude towards stress. Conclusions: Our results show no clear picture of factors constituting resilience. Instead, most aspects of resilience rather appeared to be concomitants or consequences of PTSD and non-PTSD. However, special attention should be placed on a challenge-oriented and humorous attitude towards stress in future definitions of resilience.

Longitudinal Course of Posttraumatic Grown Among U.S. Military Veteran: Results from the National Health and Resilience in Veterans Study


Background: Posttraumatic growth (PTG) is increasingly recognized as an important psychosocial phenomenon, but few studies have evaluated the longitudinal course of PTG. This study identified courses of PTG over a 2-year period in a contemporary, nationally representative sample of U.S. military veterans, and examined sociodemographic, military, trauma, medical, and psychosocial predictors of PTG course. Methods: Data were based on a Web-based survey of a nationally representative sample of 1,838 U.S. veterans who reported at least one potentially traumatic event and provided data at two time points (October–December 2011 and September–October 2013). Results: Five different courses of PTG were identified—Consistently Low (33.6%), Moderately Declining (19.4%), Increasing PTG (16.8%), Dramatically Declining (15.7%), and Consistently High (14.5%). More than half (59.4%) of veterans who reported at least “moderate” PTG maintained that level of PTG 2 years later. Posttraumatic stress disorder symptoms, medical conditions, purpose in life, altruism, gratitude, religiosity, and an active reading lifestyle predicted maintenance or increase in PTG. Conclusions: PTG has a heterogeneous course and is not only common, but can persist over time especially in the presence of posttraumatic stress and certain psychosocial factors. Clinicians and researchers should consider the personal growth that can result from trauma and help trauma survivors find ways to maintain this growth over time.

Mental Health Impact of the Iraq and Afghanistan Conflicts: A Review of US Research, Service Provision, and Programmatic Responses


Although documentation that war inflicts psychological casualties dates back to the American Civil War and earlier, most research began after the Vietnam conflict, when studies focused on post-traumatic stress disorder (PTSD). With ongoing conflicts in Iraq and Afghanistan, there has been significant research to illuminate the epidemiology of war-related psychological casualties. Significant findings include an appreciation for the role combat plays in the development of mental disorders, including PTSD and traumatic brain injury (TBI). Recent research has
endeavored to understand and improve psychological resilience to temper potentially adverse mental health effects of military service in the theatre of combat operations. Over 2 million US service members have now deployed and returned over 3 million times to the Iraq and Afghanistan conflicts. Mental health providers in the Departments of Defense and Veterans Affairs healthcare systems have consequently observed steep increases in mental health service use among these personnel. The Departments have responded aggressively to bolster staffing levels, increase capacity, improve available services, and anticipate future needs. Scientists and clinicians continue efforts to understand the determinants, prevention, recognition, and treatment of combat-related mental disorders.

Mindfulness-Based Stress Reduction for Posttraumatic Stress Disorder Among Veterans


Importance: Mindfulness-based interventions may be acceptable to veterans who have poor adherence to existing evidence-based treatments for posttraumatic stress disorder (PTSD).

Objective: To compare mindfulness-based stress reduction with present-centered group therapy for treatment of PTSD.

Design, Setting, and Participants: Randomized clinical trial of 116 veterans with PTSD recruited at the Minneapolis Veterans Affairs Medical Center from March 2012 to December 2013. Outcomes were assessed before, during, and after treatment and at 2-month follow-up. Data collection was completed on April 22, 2014.

Interventions: Participants were randomly assigned to receive mindfulness-based stress reduction therapy (n = 58), consisting of 9 sessions (8 weekly 2.5-hour group sessions and a daylong retreat) focused on teaching patients to attend to the present moment in a nonjudgmental, accepting manner; or present-centered group therapy (n = 58), an active-control condition consisting of 9 weekly 1.5-hour group sessions focused on current life problems.

Main Outcomes and Measures: The primary outcome, change in PTSD symptom severity over time, was assessed using the PTSD Checklist (range, 17-85; higher scores indicate greater severity; reduction of 10 or more considered a minimal clinically important difference) at baseline and weeks 3, 6, 9, and 17. Secondary outcomes included PTSD diagnosis and symptom severity assessed by independent evaluators using the Clinician-Administered PTSD Scale along with improvements in depressive symptoms, quality of life, and mindfulness. Results: Participants in the mindfulness-based stress reduction group demonstrated greater improvement in self-reported PTSD symptom severity during treatment (change in mean PTSD Checklist scores from 63.6 to 55.7 vs 58.8 to 55.8 with present-centered group therapy; between-group difference, 4.95; 95%CI, 1.92-7.99; \(P = .002\)) and at 2-month follow-up (change in mean scores from 63.6 to 54.4 vs 58.8 to 56.0, respectively; difference, 6.44; 95%CI, 3.34-9.53, \(P < .001\)). Although participants in the mindfulness-based stress reduction group were more likely to show clinically significant improvement in self-reported PTSD symptom severity (48.9% vs 28.1% with present-centered group therapy; difference, 20.9%; 95%CI, 2.2%-39.5%; \(P = .03\)) at 2-month follow-up, they were no more likely to have loss of PTSD diagnosis (53.3% vs 47.3%, respectively; difference, 6.0%; 95%CI, −14.1% to 26.2%; \(P = .55\)). Conclusions and Relevance: Among veterans with PTSD, mindfulness-based stress reduction therapy, compared with present-centered group therapy,
resulted in a greater decrease in PTSD symptom severity. However, the magnitude of the average improvement suggests a modest effect.

Posttraumatic Stress, Depression, Stigma, and Barriers to Care Among U.S. Army Healthcare Providers


The U.S. Army Combat Medic faces enormous stress as both soldier and trauma care provider. This study provides an initial assessment of the mental health attitudes and behaviors of these soldiers. To date, there is no known research assessing Combat Medic behavioral health or their help seeking behavior following deployment. Medics who were 12 months post-deployment from a yearlong deployment to combat were compared with a baseline group of Medics who had never been deployed to war. Participants completed a survey containing measures of mental health service utilization, perceived stigma and barriers to care, depression and posttraumatic stress disorder (PTSD) symptoms. Medics screening positive for a mental health issue were more likely to report concerns about stigma and barriers to care compared to those who screened negative. Medics who had deployed to the combat were more likely to screen positive for major depression, and have sought care for mental health issues compared to the baseline group. There were no differences in PTSD screenings between the deployed group and the baseline group. Findings indicate that depression may be a salient issue for previously deployed Combat Medics.

Predeployment, Deployment, and Postdeployment Risk Factors for Posttraumatic Stress Symptomatology in Female and Male OEF/OIF Veterans


Prior research on risk factors for posttraumatic stress symptomatology (PTSS) in war-exposed Veterans has revealed both direct and indirect mechanisms of risk that span predeployment, deployment, and postdeployment timeframes. The aims of the present study were to identify the mechanisms through which previously documented risk factors contribute to PTSS in a national sample of 579 female and male Veterans deployed to Afghanistan for Operation Enduring Freedom (OEF) or to Iraq for Operation Iraqi Freedom (OIF), as well as to examine the extent to which results mirror associations observed among Vietnam Veterans (King, King, Foy, Keane, & Fairbank, 1999). Consistent with conservation of resources (COR) theory (Hobfoll, 1989, 2001), findings indicated that PTSS is accounted for by multiple chains of risk, many originating in predeployment experiences that place Veterans at risk for additional stress exposure, and foretell difficulty accessing resources in the face of subsequent stressors. Importantly, the majority of previously documented mechanisms were replicated in this study, suggesting key pathways
through which risk factors may contribute to PTSS across different Veteran populations. Results also revealed a number of novel risk mechanisms for OEF/OIF female Veterans, particularly with respect to the role of deployment family relationships in risk for PTSS.

Predictors of Postdeployment Alcohol Use Disorders in National Guard Soldiers Deployed to Operation Iraqi Freedom


Alcohol use in the military is a significant problem. The goal of this study was to examine the associations between personality, posttraumatic stress disorder (PTSD) symptoms, and postdeployment alcohol use disorders (AUDs) among a group of Operation Iraqi Freedom (OIF) deployed National Guard soldiers, with a focus on differentiating predeployment and postdeployment onset AUDs. Participants were 348 National Guard soldiers deployed to Iraq from March 2006 to July 2007 drawn from the Readiness and Resilience in National Guard Soldiers (RINGS) study. Participants completed self-report measures one month before deployment and 3 to 6 months postdeployment; current and lifetime history of AUDs were assessed 6 to 12 months postdeployment, using the Structured Clinical Interview for the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed. text rev.; *DSM–IV*; American Psychiatric Association, 2000). Overall, 13% of the panel was diagnosed with a current AUD. Of those who met criteria for a current AUD, 38% had an AUD that developed following return from deployment (new onset AUD). The development of new onset AUDs was uniquely predicted by higher levels of PTSD symptom severity, higher levels of avoidance-specific PTSD symptoms, and lower levels of positive emotionality. AUDs with onset prior to deployment were predicted by higher levels of negative emotionality and disconstraint. Results of this study suggest that combat deployed soldiers with current AUDs are a heterogeneous group and point to the influence of combat-related PTSD symptoms in the development of AUDs following deployment.

Risk Factors for Post-Traumatic Stress Disorder among UK Armed Forces Personnel


Background: There is considerable interest in understanding further the factors that increase the risk of post-traumatic stress disorder (PTSD) for military personnel. This study aimed to investigate the relative contribution of demographic variables; childhood adversity; the nature of exposure to traumatic events during deployment; appraisal of these experiences; and home-come experiences in relation to the prevalence of PTSD ‘caseness’ as measured by a score of ≥50 on the PTSD Checklist (PCL) in UK Armed Forces personnel who have been deployed in Iraq since 2003. Method: Data were drawn from the first stage of a retrospective cohort study.
comparing UK military personnel who were deployed to the 2003 Iraq War with personnel serving in the UK Armed Forces on 31 March 2003 but who were not deployed to the initial phase of war fighting. Participants were randomly selected and invited to participate. The response rate was 61%. We have limited these analyses to 4762 regular service individuals who responded to the survey and who have been deployed in Iraq since 2003. Results: Post-traumatic stress symptoms were associated with lower rank, being unmarried, having low educational attainment and a history of childhood adversity. Exposure to potentially traumatizing events, in particular being deployed to a ‘forward’ area in close contact with the enemy, was associated with post-traumatic stress symptoms. Appraisals of the experience as involving threat to one’s own life and a perception that work in theatre was above an individual’s trade and experience were strongly associated with post-traumatic stress symptoms. Low morale and poor social support within the unit and non-receipt of a home-coming brief (psycho-education) were associated with greater risk of post-traumatic stress symptoms. Conclusions: Personal appraisal of threat to life during the trauma emerged as the most important predictor of posttraumatic stress symptoms. These results also raise the possibility that there are important modifiable occupational factors such as unit morale, leadership, preparing combatants for their role in theatre which may influence an individual’s risk of post-traumatic stress symptoms. Therefore interventions focused on systematic preparation of personnel for the extreme stress of combat may help to lessen the psychological impact of deployment.

The Relationship Between Postdeployment Factors and PTSD Severity in Recent Combat Veterans


Combat traumas precipitate posttraumatic stress disorder (PTSD); however, nontraumatic deployment and postdeployment factors may also contribute to PTSD severity. The Deployment Risk and Resilience Inventory (DRRI) was used to investigate pre-, peri-, and postdeployment factors associated with current PTSD severity in 150 recent combat veterans with PTSD and hazardous alcohol use. Hierarchical linear regression analyzed what factors independently predicted PTSD severity when controlling for sociodemographic characteristics and combat specific variables. Four postdeployment factors independently predicted PTSD severity: unemployment, alcohol use, social support, and stressful (nontraumatic) life events. The centrality of trauma in the maintenance of PTSD and clinical implications for treatment providers are discussed.
When They Come Home: Posttraumatic Stress, Moral Injury, and Spiritual Consequences for Veterans


Clergy supervisors, as they live out their various roles as models, educators, consultants, and direct providers of pastoral care, have powerful opportunities to influence and shape the responses of religious communities to the needs of returning veterans. Four key suggestions are offered to assist in ministry to/with veterans.

### 3.5 Personal Resilience in the Military

**Bringing Science to Bear: An Empirical Assessment of the Comprehensive Soldier Fitness Program**


This article outlines the U.S. Army’s effort to empirically validate and assess the Comprehensive Soldier Fitness (CSF) program. The empirical assessment includes four major components. First, the CSF scientific staff is currently conducting a longitudinal study to determine if the Master Resilience Training program and the Comprehensive Resilience Modules lead to lasting resilience development in soldiers. Second, the CSF program has partnered with other researchers to conduct a series of longitudinal studies examining the link between physiological, neurobiological, and psychological resilience factors. Third, the CSF program is also incorporating institutional-level data to determine if its material influences health, behavioral, and career outcomes. Fourth, group randomized trials are being conducted to ensure that resilience training incorporated under the CSF program is effective with soldiers. A specific rationale and methodologies are discussed.

**Deployment Risk and Resilience Inventory: A Collection of Measures for Studying Deployment-Related Experiences of Military Personnel and Veterans**


This article describes the development of an inventory to assess key psychosocial risk and resilience factors for military personnel and veterans deployed to war zones or other hazardous environments. Part 1 details the definition and operationalization of the 14 constructs: 2
predeployment factors (e.g., childhood family environment), 10 deployment or war-zone factors (e.g., concerns about life and family disruptions, deployment social support, combat experiences), and 2 post deployment factors (e.g., post deployment stressors). In Parts 2 and 3, data from 2 separate national samples of Gulf War veterans were used to refine item sets and establish estimates of internal consistency reliability. Part 4 employed a 3rd new national sample of Gulf War veterans to document evidence for validity in terms of relations with mental and physical health.

Grit and Hardiness as Predictors of Performance Among West Point Cadets


The U.S. Military Academy has historically used an academically weighted composite of aptitude, leadership, and physical ability indices for selection of candidates and to predict their performance at the Academy. Researchers at West Point have begun to investigate the incremental contribution of a variety of less traditional nonaptitude or noncognitive factors in predicting performance. Particular focus has centered on hardiness and grit because they have been shown to predict persistence through Cadet Basic Training (CBT) and achievement in the first year at the Academy. In the current investigation, we further examined the predictive validity of grit and hardiness, and their subfacets, on retention and performance through the full 4-year West Point program with data from 1,558 cadets, comprising the West Point classes of 2009 and 2010. Results of regression analyses indicate that whereas grit interest and hardiness commitment were the sole predictors of attrition from CBT, only grit effort predicted persistence across the remaining 4 year period. College Entrance Exam Rank (CEER), a traditional measure of academic success, did not predict persistence. In terms of performance, grit interest, and hardiness control added to CEER in the prediction of 4-year academic performance. Although CEER continued to be the best predictor of military performance, grit effort and hardiness commitment were also important contributors. Finally, grit effort also added to the Athletic Activities Score and CEER in predicting physical performance. These results indicate that the noncognitive factors grit and hardiness are important predictors of success in military officer candidates. We discuss the implication of our findings for selection and prediction of performance of within military environments.

Literature Review of Concepts of Psychological Resiliency


This report provides a detailed literature review of the current state of knowledge on resiliency and its application to military personnel. In this report we summarize (1) the current, accepted definitions of resiliency, (2) factors contributing to resiliency, (3) theories of resiliency, (4) empirical research findings on resiliency in protecting individuals from adverse outcomes associated with acute or chronic stress, (5) empirical research findings on resiliency in military
personnel and other high-risk occupations, and (6) resiliency measures and describe their development and validation. Existing definitions implicate resiliency with the ability to adapt and successfully cope with adversity, life stressors, and traumatic events. However, findings from this review demonstrate the lack of a uniform or accepted definition of resiliency. Research to date has resulted in the identification of several individual traits and environmental situations that are contributing factors to resiliency, and this has led to recent efforts to develop and validate emerging interactive resiliency factor models. The theoretical bases of resiliency remains controversial and many existing theories have received modest empirical investigation. Furthermore, the methodologies used in many of these conceptually-based studies are poor and results are limited in their generalizability. Empirical research on protective factors remains limited, and their inter-relationships to risk factors and exposure factors remains unclear. Relatively few studies have investigated resiliency in military populations. These studies have primarily investigated protective factors among resilient individuals who have experienced combat exposure (e.g., prisoners of war). Yet, much more is to be learned about resiliency across the range of military personnel experiences (e.g., peace keepers). Lastly, our review identified numerous measures of resiliency, and of related constructs, however, many lack sufficient validation. To further advance our knowledge of resiliency, future research will need to use more sophisticated methodologies and measurement strategies, which can be validated across a range of populations. Such research efforts have the potential to develop and evaluate resiliency based interventions, and aid in social policy applications within military and non-military populations.

Mindfulness in the Military


Mindfulness-based interventions have begun to build an evidence base that suggests utility in disorders ranging from anxiety and depression to smoking and other substance use disorders. Mindfulness-Based Mind Fitness Training was developed specifically for military environments by Dr. Elizabeth Stanley, ninth-generation U.S. Army, and combines mindfulness practice with a didactic and skills training component on automatic nervous system regulation. In theory, this combination is supposed to train individuals to behaviorally ‘tune’ their autonomic nervous system to be more dynamically responsive to stress. This is important because although the military uses stress inoculation training to put soldier in real-word simulation to better prepare them for actual combat, stress inoculation does not provide recovery training- that is, how to ‘turn off’ their nervous system once the stressor has passed; stress inoculation teaches troops to function well during stress but not how to recover to baseline afterward. This study is noteworthy for its taking place in an active military training setting, the use of stress inoculation training as a real-world stressor (as compared with bringing participants into a lab), the linkage of physiological markers, and a grounded theoretical basis for what the mindfulness training intervention would target.
Moral Injury and Moral Repair in War Veterans: A Preliminary Model and Intervention Strategy


Throughout history, warriors have been confronted with moral and ethical challenges and modern unconventional and guerilla wars amplify these challenges. Potentially morally injurious events, such as perpetrating, failing to prevent, or bearing witness to acts that transgress deeply held moral beliefs and expectations may be deleterious in the long-term, emotionally, psychologically, behaviorally, spiritually, and socially (what we label as moral injury). Although there has been some research on the consequences of unnecessary acts of violence in war zones, the lasting impact of morally injurious experience in war remains chiefly unaddressed. To stimulate a critical examination of moral injury, we review the available literature, define terms, and offer a working conceptual framework and a set of intervention strategies designed to repair moral injury.

Moral Injury – A War Trauma Affecting Current and Former Military Personnel


Moral injury is conceptualized as ‘perpetuating, failing to prevent, bearing witness to, or learning about acts that transgress deploy held moral beliefs and expectations. Moral injury has been compared to a primary psychological trauma which may not necessarily be encompassed by a diagnosis of post-traumatic stress disorder. Following exposure to trauma, military personnel will sometimes look to pastoral care providers for support in an effort to realign their existential beliefs and reaffirm the meaning and purpose of life. Evidence-based strategies for dealing with moral injury are just starting to develop.

Navy Resilience Plan


1. The enhancement of capability through building Navy resilience is a topic of interest not only to the RAN, but also to militaries throughout the world, including the US Department of Defense (DoD). In 2011 a RAND study examined 270 resilience programs in the US military. With increasing trends of reduced capacity to undertake and fulfil missions, the US DoD sought to understand which programs worked and why. The RAND study recommended that a successful resilience plan: a. needs a comprehensive approach to resilience, that encompasses multiple types of resilience; b. must provide a coherent definition of resilience; and c. must provide tailored measures for resilience as there was no clearly identified measurement method or instrument
used consistently across the 270 studies. 2. The RAN has already implemented a number of specific resilience support activities, such as BattleSMART, and has identified traditional tools such as the Divisional System, sport, moral and leadership training that will assist in building Navy resilience. Plan Pelorus and the Navy Warfighting Strategy 2018 (NWS18) formalize the requirement to produce resilient people and, to be fully successful in producing resilient individuals and teams, all endeavors need to be coordinated and measured to achieve a common objective. 3. The requirement for Navy resilience is further captured in Plan Pelorus Strategic Objective Progress and Risk (SOPR) 4 – Reputation and Reform. 4. This plan has been developed by NGN and stakeholders. The plan takes into account direction received from the NGN Steering Group (NGNSG) and meets the aims of the following primary documents: a. Plan Pelorus; b. Navy Warfighting Strategy 2018 (NWS18); c. ADF Mental Health and Wellbeing Strategy; and d. NGN Strategy to 2018. 5. This plan must be adaptive to reflect the significant ongoing research into resilience within and outside of Australia.

Postdeployment PTSD and Addictive Combat Attachment Behaviors in U.S. Military Service Members


Combat attachment is defined as a pattern of habitually engaging in combat-related experiences for considerable amounts of time, accompanied by feelings of excitement or euphoria and physiological hyperarousal, with impairment in social or occupational functioning. Combat addiction is a cyclical pattern of re-experiencing memories of the exciting ‘high’ or ‘rush,’ followed by periods of feeling down, guilty, or emotionally numb. Combat rush is described as the phenomenon of intense, pleasurable arousal that combat veterans experience when recalling exciting combat memories. Solomon’s opponent-process theory posited that the ‘development of addictive behaviors, whether initiated by pleasurable or by aversive events’ includes tolerance and withdrawal syndromes, likely mediated by endorphins. Oftentimes, veterans report feeling fully alive and experiencing intense feelings of competence, leadership, and brotherhood during deployment. This case study examines service members with PTSD derived from 120 consecutive active duty marines and sailors in Camp Pendleton, California who presented to the Concussion Clinic and were referred to the embedded clinical psychologist for evaluation and treatment of coexisting mental health symptoms. Although some combat veterans may have premorbid characteristics of sensation seeking, research indicates that risk taking increases significantly after deployment. Combat attachment behaviors may represent a significant variable contributing to suboptimal treatment utilization and outcomes, but barriers may impede exploration of this area, particularly negative judgments concerning these behaviors, by both clinicians and patients.
Post-Deployment Screening with Tailored Advice Does Not Help Reduce Mental Health Disorders in UK Armed Forces, Study Finds


Few Armed Forces personnel seek help for mental health disorders and novel approaches will be needed to encourage personnel at risk of PTSD, anxiety and alcohol abuse to seek treatment, suggests a new study. A trial testing a potential post-deployment screening program for UK Armed Forces personnel, based on a computerized assessment and tailored mental health advice, found it was not effective in reducing symptoms of mental health disorders or encouraging personnel to seek help, compared to the general mental health advice which is the standard of care in the UK military.

Posttraumatic Mental and Physical Health Correlates of Forgiveness and Religious Coping in Military Veterans


This study assessed mental and physical health correlates of dispositional forgiveness and religious coping responses in 213 help-seeking veterans diagnosed with PTSD. Controlling for age, socioeconomic status, ethnicity, combat exposure, and hostility, the results indicated that difficulty forgiving oneself and negative religious coping were related to depression, anxiety, and PTSD symptom severity. Difficulty forgiving others was associated with depression and PTSD symptom severity, but not anxiety. Positive religious coping was associated with PTSD symptom severity in this sample. Further investigations that delineate the relevance of forgiveness and religious coping in PTSD may enhance current clinical assessment and treatment approaches.

Randomized Controlled Trial of Online Expressive Writing to Address Readjustment Difficulties Among U.S. Afghanistan and Iraq War Veterans


We examined the efficacy of a brief, accessible, nonstigmatizing online intervention-writing expressively about transitioning to civilian life. U.S. Afghanistan and Iraq war veterans with self-reported reintegration difficulty (N = 1,292, 39.3% female, M = 36.87, SD = 9.78 years) were randomly assigned to expressive writing (n = 508), factual control writing (n = 507), or no writing (n = 277). Using intention to treat, generalized linear mixed models demonstrated that 6-months postintervention, veterans who wrote expressively experienced greater reductions in physical complaints, anger, and distress compared with veterans who wrote factually (ds = 0.13 to 0.20; p < .05) and greater reductions in PTSD symptoms, distress, anger, physical complaints,
and reintegration difficulty compared with veterans who did not write at all (ds = 0.22 to 0.35; \( p \leq .001 \)). Veterans who wrote expressively also experienced greater improvement in social support compared to those who did not write (d = 0.17). Relative to both control conditions, expressive writing did not lead to improved life satisfaction. Secondary analyses also found beneficial effects of expressive writing on clinically significant distress, PTSD screening, and employment status. Online expressive writing holds promise for improving health and functioning among veterans experiencing reintegration difficulty, albeit with small effect sizes.

Reasoning Training in Veteran and Civilian Traumatic Brain Injury with Persistent Mild Impairment


Traumatic brain injury (TBI) is a chronic health condition. The prevalence of TBI, combined with limited advances in protocols to mitigate persistent TBI-related impairments in higher order cognition, present a significant challenge. In this randomized study (\( n = 60 \)), we compared the benefits of Strategic Memory Advanced Reasoning Training (SMART, \( n = 31 \)), a strategy-based programme shown to improve cognitive control, versus an active learning programme called Brain Health Workshop (BHW, \( n = 29 \)) in individuals with TBI with persistent mild functional deficits. Outcomes were measured on cognitive, psychological health, functional, and imaging measures. Repeated measures analyses of immediate post-training and 3-month post-training demonstrated gains on the cognitive control domain of gist reasoning (ability to abstract big ideas/goals from complex information/tasks) in the SMART group as compared to BHW. Gains following the SMART programme were also evident on improved executive function, memory, and daily function as well as reduced symptoms associated with depression and stress. The SMART group showed an increase in bilateral precuneus cerebral blood flow (CBF). Improvements in gist reasoning in the SMART group were also associated with an increase in CBF in the left inferior frontal region, the left insula and the bilateral anterior cingulate cortex. These results add to prior findings that the SMART programme provides an efficient set of strategies that have the potential to improve cognitive control performance and associated executive functions and daily function, to enhance psychological health, and facilitate positive neural plasticity in adults with persistent mild impairment after TBI.

Relevance of Hardiness Assessment and Training to the Military Context


Hardiness is a pattern of attitudes and skills that provides the courage and strategies to turn stressful circumstances from potential disasters into growth opportunities instead. As such, hardiness is particularly relevant to inherently stressful settings, such as military service. First,
theory and research on hardiness assessment and training is summarized in a manner than highlights relevance to stressful situations. Discussed then are likely applications of hardiness assessment and training in particular military contexts, such as selection and preparation for Special Forces or other extreme assignments, and treatment of combat-related physical and mental disabilities.

Resilience – Defense Centers of Excellence


Resilience – Defense Centers of Excellence is a reference guide published by the U.S. Military. This paper explains resilience and provides tools for using resilience to deal with life’s challenges. Key points include: proactively building resilience will make it easier to handle challenges as they arise, being resilient means taking charge of your own thoughts, be assertive in your personal relationships and communication with people, develop the following qualities to increase your resilience – gratitude, generosity, goal-focused, realistic optimism, and forgiveness.

Resilience in the Aftermath of War Trauma: A Critical Review and Commentary


The resilience construct has received a great deal of attention as a result of the long wars in Iraq and Afghanistan. The discourse about resilience, especially the promise of promoting it and mitigating risk for serious post-traumatic negative outcomes among service members and veterans, is hopeful and encouraging. Remarkably, most service members exposed to horrific war trauma are not incapacitated by the experience. Yet, resilience is elusive and fleeting for many veterans of war. In this paper, I address some of the complexities about resilience in the context of exposure to war stressors and I offer some assumptions and heuristics that stem from my involvement in the dialogue about resilience and from experiences helping prevent posttraumatic stress disorder among active-duty service members with military trauma. My goal is to use my observations and applied experiences as an instructive context to raise critical questions for the field about resilience in the face of traumatic life-events.
The Army Study to Assess Risk and Resilience in Service members (Army STARRS) and The Study to Assess Risk and Resilience in Service members – Longitudinal Study (STARRS-LS)

Ursano, R. J., & Stein, M. B. (2017). The army study to assess risk and resilience in service members (Army STARRS) and the study to assess risk and resilience in service members – longitudinal study (STARRS-LS). Center for the Study of Traumatic Stress, 1(15), 1-35.

Army STARRS (2009-2015) was the largest and most comprehensive research project of mental health ever conducted in the U.S. Army. The project was designed to examine a broad range of risk and resilience (protective) factors across a complex set of outcomes. Army STARRS scientists created a series of extensive databases with the potential to achieve groundbreaking results. These databases allow scientists to investigate a diverse combination of factors from demographic, psychological, biological, neurological, behavioral, and social domains to help identify risk and resilience factors for Soldier suicidal behaviors and associated mental health issues. The project was designed using an adaptive approach which means it evolved as new information became available over the course of the project. With the goal of generating actionable findings, the research team shared preliminary findings with the Army as they became available so that the Army could apply them to its ongoing health promotion, risk reduction, and suicide prevention efforts. Army STARRS included the following component studies: 1) the Historical Administrative Data Study (HADS) of Army and Department of Defense (DoD) administrative data systems (including records of suicidal behaviors) for all Soldiers on active duty from 2004 to 2009 aimed at finding administrative record predictors of suicides; 2) two retrospective case-control studies of fatal and nonfatal suicidal behaviors; 3) a study of new Soldiers assessed just before beginning basic combat training (BCT) with self-administered questionnaires (SAQ), neurocognitive tests, and blood samples; 4) a cross-sectional study of Soldiers representative of all other active duty Soldiers (exclusive of BCT); 5) a pre-post deployment study (with blood samples) of Soldiers in Brigade Combat Teams about to deploy to Afghanistan, with sub-samples assessed again one, three, and nine months after returning from deployment.

The Impact of Predeployment Functional Impairment on Mental Health After Combat


Impaired functioning in the aftermath of a combat deployment is well-established. What is less clear, however, is the role of impaired functioning prior to deployment in predicting mental health adjustment following a return home. In this study, a longitudinal design was used to assess PTSD and depression symptoms, anger problems, and impaired functioning in a sample of 522 U.S. Army soldiers, two months prior to a 12-month deployment to Iraq and again three months following their return home. The study had two objectives: To determine whether predeployment functional impairment predicted postdeployment psychological adjustment level (in terms of PTSD and depression symptoms, anger problems); and to assess whether predeployment
functional impairment interacted with combat exposure such that greater impairment and higher exposure were associated with poorer postdeployment psychological outcomes. A significant interaction effect between predeployment functional impairment and combat exposure in the prediction of PTSD symptoms was found using mixed-effects modeling, suggesting that service members who are exposed to high levels of combat are at greater risk for PTSD symptoms if they deployed with preexisting problems in functioning. Significant independent effects were found in models predicting depression symptoms, anger problems, and postdeployment functional impairment. Results have implications for the health of service members participating in multiple combat deployments who have limited opportunity to recover between deployments.

4.0 Peace Corps Materials

Building a Resilient Organizational Culture


An uncertain economic outlook, the rapid pace of change, and the need to continually adapt has made resilience—the ability to bounce back in the face of a setback—the new priority in leadership development. The good news is that resilience can be taught. This white paper: Explores why resilience is more important than ever for organizations to cultivate. Explains the difference between wellness programs and building a resilience culture. Discusses why resilience should be cultivated, not just at the senior leadership level, but at all levels in an organization. Offers steps HR and talent managers can take to develop resilient organizational cultures. Provides examples of organizations that have engaged in a resilience initiative and the benefits they realized as a result.

Dealing with Organizational Change: Can Emotional Intelligence Enhance Organizational Learning?


Organizational learning is a method of successfully dealing with continuous change. Emotional aspects of change, however, are not addressed in any detail. In this article, I explore the four branches of emotional intelligence, emotional awareness, emotional facilitation, emotional knowledge and emotional regulation to identify the links between organizational learning and emotional intelligence that contribute to successful organizational change. Although emotional intelligence has been identified as a predictor of workplace performance, little research has been conducted regarding the impact of the emotional intelligence on the behavior of employees and managers during organizational change. Implications for managers are also discussed.
Mental Health and Psychosocial Support in Humanitarian Settings: Linking Practice and Research


This review links practice, funding, and evidence for interventions for mental health and psychosocial wellbeing in humanitarian settings. We studied practice by reviewing reports of mental health and psychosocial support activities (2007–10); funding by analysis of the financial tracking service and the creditor reporting system (2007–09); and interventions by systematic review and meta-analysis. In 160 reports, the five most commonly reported activities were basic counselling for individuals (39%); facilitation of community support of vulnerable individuals (23%); provision of child-friendly spaces (21%); support of community-initiated social support (21%); and basic counselling for groups and families (20%). Most interventions took place and were funded outside national mental health and protection systems. 32 controlled studies of interventions were identified, 13 of which were randomized controlled trials (RCTs) that met the criteria for meta-analysis. Two studies showed promising effects for strengthening community and family supports. Psychosocial wellbeing was not included as an outcome in the meta-analysis, because its definition varied across studies. In adults with symptoms of post-traumatic stress disorder (PTSD), meta-analysis of seven RCTs showed beneficial effects for several interventions (psychotherapy and psychosocial supports) compared with usual care or waiting list (standardized mean difference [SMD] –0.38, 95% CI –0.55 to –0.20). In children, meta-analysis of four RCTs failed to show an effect for symptoms of PTSD (–0.36, –0.83 to 0.10), but showed a beneficial effect of interventions (group psychotherapy, school-based support, and other psychosocial support) for internalizing symptoms (six RCTs; SMD –0.24, –0.40 to –0.09). Overall, research and evidence focuses on interventions that are infrequently implemented, whereas the most commonly used interventions have had little rigorous scrutiny.

Training Adaptable Leaders: Lessons from Research and Practice


Research Requirement: In the post 9/11 environment and the subsequent Global War on Terrorism, the need for adaptable leaders in the military has become increasingly apparent. To date, relatively little is known conclusively about whether adaptability can be trained, and if so, the best means of training it. Recent research and practical applications have begun to shed some light on these issues, however, and in this paper we describe important elements of the training and development of officers that can enhance their adaptive performance. Procedure: Our first step was to define and describe adaptability and the adaptability-related behaviors that are important for military leaders. Next, we discussed the knowledge, skills, and abilities that are needed to successfully perform in an adaptable fashion. As not all of these characteristics are amenable to training, we also discussed which characteristics were most appropriate to target in a
training program and which may be more appropriate as selection factors. Finally, we integrated research on adaptability behaviors, characteristics related to adaptability, and effective training interventions to present concrete recommendations for developing adaptable leaders via the three pillars of Army training: institutional, operational, and self-development. Findings: Based on existing research, adaptability was defined as an effective change in response to an altered situation. This definition emphasizes that an individual must recognize the need to change based on some current or future perceived alteration in the environment and change his or her behavior as appropriate. Research has demonstrated that within this broad definition, adaptability is a multifaceted construct with several distinct dimensions. For this report, these dimensions were grouped into three overarching types of adaptability, each of which is potentially important in developing military leaders: mental, interpersonal, and physical adaptability. In addition to these important individual performance dimensions, leaders also have the added task of developing adaptability in their units by encouraging and rewarding adaptive behavior and by ensuring that everyone works together in a coordinated fashion. A number of personal characteristics have been related to successful adaptive performance, including personality traits, cognitive skills, interpersonal skills, and the extent of one’s domain specific knowledge and experience. Also, research suggests two training principles are particularly important with respect to training adaptive performance. First, that training interventions should incorporate as many opportunities as possible for emerging leaders to be exposed to situations requiring adaptability. Whether simulated or real, this exposure will allow the individual to start to build his or her own catalog of experiences from which to draw on in the future thereby speeding up the acquisition of expertise. Second, an iterative process of practice, feedback, and practice is a necessary part of development. Individuals should have the opportunity to practice new skills, obtain feedback on their results, and apply what they learned from this feedback in subsequent practice sessions. In an adaptability context, individuals should have ample opportunities to practice their adaptability related skills in a variety of settings and obtain feedback from a variety of sources. Finally, research on adaptability was integrated with the research on effective training principles to propose recommendations for the development of adaptive leaders via institutional, operational, and self-development methods. Utilization and Dissemination of Findings: The first step in designing training to develop adaptability is to identify whether specific jobs require adaptive performance, keeping in mind that some jobs will not require adaptability. Once adaptable performance is defined for a given job, the information in this report provides concrete ideas that can be applied to enhance the development of adaptive performance, whether it is in a program of instruction, in the field, or as part of a self-development program. Developing adaptive performance in Army leaders will likely require a substantial investment in an integrated training system from “cradle to grave.” Junior level leaders need to be exposed to adaptability training at the start of their careers through classroom and field exercises, during the early part of their careers through operational experiences and feedback mechanisms, and continuing throughout their careers through ongoing professional development. Having prescriptive documents such as this provides an important launch point. This report represents the first widespread dissemination of these findings.
4.1 Peace Corps Resilience Sessions

Facilitator’s Workbook for Supporting Volunteer Resiliency


Several factors contribute to the need for providing appropriate support to Peace Corps Volunteers. Peace Corps service occurs in a high stress environment due in large part to multiple disconnects (PCVs usually experience change and loss on several levels; ex. job, school, family, friends, community, culture, place of worship). Cross-cultural understanding and personal adaptation are by definition stressful. Chronic stress may result in “moods” of guilt/anger and feelings of aloneness and high risk behaviors. Human connection is a “solution” for calming unfamiliar stressful states. In an emotionally charged environment, the need for connection or belonging may override safety concerns about inappropriate relationships. Volunteer adjustment is a matter of personal connection and community integration. Volunteer support and adjustment are based on building authentic relationships. Supporting Volunteer Resiliency is a Peace Corps staff training that provides curricula in the skills, knowledge and attitudes necessary to effectively support Volunteers. The goals of this training are: To introduce staff to a Volunteer support coaching model that promotes Volunteer problem solving; To build staff KSAs in the areas of listening, understanding, setting boundaries, giving feedback and problem solving; and to raise participants’ awareness of the post systems necessary to provide effective Volunteer support.

Volunteer Resiliency Mini Toolkit for Pre-Service and In-Service Training


The Resiliency Training Toolkit provides 9 session plans grouped in four categories: context and climate setting, building knowledge, applications, and integration. Each category provides two or more session formats that involve trainees in interactive learning. Each session may be considered a frame: the method employed may be filled with different content. The guided visualization can carry trainees down any number of potentially difficult paths; the loss exercise focused on host country realities; the Volunteer letter format be rewritten to address any number of topics; the sequential case study move through any sequence of choices in the host country setting. Goal 1 involves building resiliency in trainees/Volunteers by increasing their understanding of stress, including cumulative and different stressors in the Peace Corps context, and where and how support is available. By the end of these sessions trainees and/or Volunteers will: Describe the cumulative nature of stress, and how stressors in the Peace Corps context may differ from what they are accustomed to. Recognize the coping strategies they tend to use to deal with stress and identify which are most appropriate in this context; identify some new coping strategies that may be useful. Distinguish between constructive/healthy choices and destructive/unhealthy choices in response to the stresses inherent in being a Volunteer. Goal 2
attempts to raise trainees’ awareness of the links between risky behaviors and personal health and safety, and the potential compromise of their goals of serving in the Peace Corps. By the end of these sessions trainees and/or Volunteers will: Understand the consequences of destructive/unhealthy behaviors for themselves, their fellow Volunteers, the Peace Corps, and the community they serve. Development of some knowledge of concepts and vocabulary to describe feelings they may experience and benefit by discussing with peers or staff. Know to whom to go for support: including how to support themselves, and to request and receive support from other Volunteers, staff, and their community.

4.1.1 Peace Corps Resilience Toolkit

4.1.1.1 Articles

Providing Support in Highly Challenged Posts


Volunteers and workers in the field may unconsciously develop coping strategies which ultimately lead to burnout or early termination. Those discouraged strategies can include: over-functioning, un-functioning, or under-functioning. Strategies to help Volunteers remain resilient throughout their service must include ways of helping them talk about their experience, find ways to manage feelings, and develop trust of the systems in place to support them. Ideas includes: peer and post support training, diversifying projects/programs, building a community of connection, expanding mental health resources at post, recruiting and training PTOs/Staff, developing pre-staging materials, and providing on-going training/debriefing.

The Seven Habits of Highly Resilient Posts


The seven habits of highly resilient posts include: adapting to a variety of cross-cultural conditions, connecting to support and supervision, equipping and assuring access to local resources, remaining alert to hazards of health, safety, and security, forecasting ‘seasonal’ challenges to safety and well-being, responding to those in need to assistance, and managing high risk behaviors. In effect, the litmus test for enhancing approaches to support Volunteers and Staff in high stress areas is how the plan contributes to minimizing the impact of the three (3) rules found in dysfunctional systems. 1. Does the idea help increase a Volunteer’s ability to communicate freely with Staff and/or others; 2. Does the approach help develop a community of connection and trust; and/or 3. Does this training or effort promote an environment where strong unfamiliar feelings can be expressed safely?
5.0 Personal Resilience

5.1 Active Problem Solving

Psychological First Aid: Field Operations Guide


Psychological First Aid is an evidence-informed modular approach to help children, adolescents, adults, and families in the immediate aftermath of disaster and terrorism. Psychological First Aid is designed to reduce the initial distress caused by traumatic events and to foster short- and long-term adaptive functioning and coping. Principles and techniques of Psychological First Aid meet four basic standards: 1) consistent with research evidence on risk and resilience following trauma; 2) applicable and practical in field settings; 3) appropriate for developmental levels across the lifespan; and 4) culturally informed and delivered in a flexible manner. Psychological First Aid does not assume that all survivors will develop severe mental health problems of long-term difficulties in recovery. Instead, it is based on an understanding that disaster survivors and others affected by such events will experience a broad range of early reactions (for example, physical, psychological, behavioral, spiritual). Some of these reactions will cause enough distress to interfere with adaptive coping, and recovery may be helped by support from compassionate and caring disaster responders. The basic objectives of Psychological First Aid include: establish a human connection in a non-intrusive compassionate manner; enhance immediate and ongoing safety, and provide physical and emotional comfort; calm and orient emotionally overwhelmed or distraught survivors; help survivors to tell you specifically what their immediate needs and concerns are, and gather additional information as appropriate; offer practical assistance and information to help survivors address their immediate needs and concerns; connect survivors as soon as possible to social support networks, including family members, friends, neighbors, and community helping resources; support adaptive coping, acknowledge coping efforts and strengths, and empower survivors, encourage adults, children, and families to take an active role in their recovery; provide information that may help survivors cope effectively with the psychological impact of disaster; and be clear about your availability, and (when appropriate) link the survivor to another member of a disaster response team or local recovery systems, mental health services, public-sector services, and organizations.

Defining and Managing Acceptable Risk


This article was published by the Foreign Service Journal and explains how to thrive at a hardship post and the importance of work-life balance. The Department of State should give more breaks (even mini ones) in order to improve employee performance. The Department of State should instill in its top managers an appreciation for work-life balance (especially at high threat posts). People perform better when they’re happy, appreciated, and motivated.
Long Working Hours and Risk of Coronary Heart Disease and Stroke: A Systematic Review and Meta-Analysis of Published and Unpublished Data for 603,838 Individuals


Background: Long working hours might increase the risk of cardiovascular disease, but prospective evidence is scarce, imprecise, and mostly limited to coronary heart disease. We aimed to assess long working hours as a risk factor for incident coronary heart disease and stroke. Methods: We identified published studies through a systematic review of PubMed and Embase from inception to Aug 20, 2014. We obtained unpublished data for 20 cohort studies from the Individual-Participant-Data Meta-analysis in Working Populations (IPD-Work) Consortium and open-access data archives. We used cumulative random-effects meta-analysis to combine effect estimates from published and unpublished data. Findings: We included 25 studies from 24 cohorts in Europe, the USA, and Australia. The meta-analysis of coronary heart disease comprised data for 603,838 men and women who were free from coronary heart disease at baseline; the meta-analysis of stroke comprised data for 528,908 men and women who were free from stroke at baseline. Follow-up for coronary heart disease was 5.1 million person-years (mean 8.5 years), in which 4768 events were recorded, and for stroke was 3.8 million person-years (mean 7.2 years), in which 1722 events were recorded. In cumulative meta-analysis adjusted for age, sex, and socioeconomic status, compared with standard hours (35–40 h per week), working long hours (≥55 h per week) was associated with an increase in risk of incident coronary heart disease (relative risk [RR] 1.13, 95% CI 1.02–1.26; p=0.02) and incident stroke (1.33, 1.11–1.61; p=0.002). The excess risk of stroke remained unchanged in analyses that addressed reverse causation, multivariable adjustments for other risk factors, and different methods of stroke ascertainment (range of RR estimates 1.30–1.42). We recorded a dose–response association for stroke, with RR estimates of 1.10 (95% CI 0.94–1.28; p=0.24) for 41–48 working hours, 1.27 (1.03–1.56; p=0.03) for 49–54 working hours, and 1.33 (1.11–1.61; p=0.002) for 55 working hours or more per week compared with standard working hours (ptrend<0.0001). Interpretation: Employees who work long hours have a higher risk of stroke than those working standard hours; the association with coronary heart disease is weaker. These findings suggest that more attention should be paid to the management of vascular risk factors in individuals who work long hours.
Psychological Contract Breach in the Anticipatory Stage of Change: Employee Responses and the Moderating Role of Supervisory Informational Justice


This study examined the impact of two types of psychological contract breach (organizational policies and social atmosphere breach) on resistance to change and engagement in the anticipatory phase of change and assessed whether supervisory informational justice mitigated the negative effects of breach. Employees from three departments of a Dutch financial institution (n=141) who were in the first phase of a change initiative participated in the study. Results showed that social atmosphere breach was positively related to affective resistance to change and negatively related to engagement, while organizational policies breach was positively related to cognitive resistance to change. These findings point to the importance of distinguishing between different types of psychological contract breach. In addition, it was found that supervisory informational justice mitigated the adverse effect of social atmosphere breach on cognitive resistance to change, pointing to the important role of managers in the first phase of change.

The Effects of Working Time on Productivity and Firm Performance: A Research Synthesis Paper


This research synthesis paper attempts to summarize the various effects of working time, in its multiple dimensions, described in the research literature in the past years. It covers the available empirical evidence regarding the effects of both hours of work and flexible types of working time arrangements. It discusses in particular the effects of long working hours and flexibility in the timing of work schedules and their impact on both labor productivity and firm performance via the underlying long-run labor costs. It considers the various dimensions of working time and its features of interest, such as duration, flexibility, variability (unpredictability) and divergence from preferences (mismatches — overemployment and underemployment). It reviews the credible, state-of-the-art research studies, particularly those conducted since 2000, from many countries, so as to help inform discussions between the three social players and their experts. Those studies are both macroeconomic and microeconomic in scope, although the latter predominate. This paper covers the broadest possible range of relevant literature, by both discipline and country, including developed and developing countries.
5.2 Burnout

Areas of Worklife: A Structured Approach to Organizational Predictors of Job Burnout


This chapter evaluates a model of the organizational context of burnout with direct reference to a new measure, the Areas of Worklife Scale (AWS). The model proposes a structured framework for considering six areas of worklife – workload, control, reward, community, fairness, and values – that have resonated through the literature on burnout over the previous two decades. The chapter presents extensive data on the AWS, testing a model of the six areas’ interrelationships as well as their overall relationship to the three aspects of burnout. The results of these analyses are discussed in reference to the psychometric qualities of the measure and the implications of a structured approach to work environments for future development of research on burnout. Implications for developing workplace interventions are also considered.

Burnout at Work: A Psychological Perspective


The psychological concept of burnout refers to long-term exhaustion from, and diminished interest in, the work we do. It’s a phenomenon that most of us have some understanding of, even if we haven’t always been affected directly? Many people start their working lives full of energy and enthusiasm, but far fewer are able to maintain that level of engagement? *Burnout at Work: A Psychological Perspective* provides a comprehensive overview of how the concept of burnout has been conceived over recent decades, as well as discussing the challenges and possible interventions that can help confront this pervasive issue. Including contributions from the most eminent researchers in this field, the book examines a range of topics including: the links between burnout and health, how our individual relationships at work can affect levels of burnout, the role of leadership in mediating or causing burnout, the strategies that individuals can pursue to avoid burnout, as well as wider interventions. The book will be required reading for anyone studying organizational or occupational psychology, and will also interest students of business and management, and health psychology?
Burnout: Why Do People Suffer, And Why Do International Relief Workers Suffer More than Domestic Response Workers and First Responders?


The following paper will examine the available literature in the areas of PTSD, burnout, and compassion fatigue in relation to western first responders, western domestic, disaster workers and international relief workers. The paper will focus on the environmental situations that put these groups at risk for burnout as well as the other stress inducing factors. The paper will provide discussion and analysis of the major contributing factors to burnout in an effort to determine which of the established groups is at higher risk of developing burnout symptoms. The paper will conclude with a short discussion of the recognizable signs of burnout in all response workers and identify a number of potential mitigation strategies that response agencies can employ to treat their staff members.

Can’t Get No Satisfaction


In 21st Century New York, the 60-hour work week is considered normal. In some professions, it’s a status symbol. But burnout, for the most part, is considered a sign of weakness, a career killer. Burnout involves rigid ideals of win-lose where the expectations of success are through the roof, and where the reality doesn’t match up with the expectations; ultimately, leaving no room for error or failure. Happiness equates reality divided by expectations. Work, after all, is a form of religion in a secular world. Burning out in it amounts to a crisis of faith. Maslach, now vice-provost at the University of California Berkeley, famously co-developed a detailed survey, known as the Maslach Burnout Inventory, to measure the syndrome. Her theory is that any one of the following six problems can fry us to a crisp: working too much, working in an unjust environment, working with little social support, working with little agency or control, working in the service of values we loathe, working for insufficient reward (whether the currency is money, prestige, or positive feedback). Burnout isn’t necessarily a result of overwork but of a crisis in self-efficacy. People with modest aims for themselves seem less prone to disillusionment. Younger people, married people, childless people, people with mental illnesses, and individualist societies are more prone to burn out than their counterparts. Interruption, usually through technology, makes people especially unproductive. It feeds into our sense of control. Burnout is in essence, a mismatch between effort and recovery.
Dealing with Burnout, Which Doesn’t Always Stem from Overwork


This article was published in the New York Times explaining the phenomenon of burnout and describes ways that organizations can combat it. Burnout has a negative effect on workers by causing emotional exhaustion and loss of idealism as well as reducing personal efficacy. Burnout can be avoided by exercise, eating well, and getting enough sleep. While burnout is commonly caused by overworking, it can also be caused by a negative work environment.

Emotional Labor and Burnout: Comparing Two Perspective of ‘People Work’


Although it has often been presumed that jobs involving “people work” (e.g., nurses, service workers) are emotionally taxing (Maslach & Jackson, 1982), seldom is the emotional component of these jobs explicitly studied. The current study compared two perspectives of emotional labor as predictors of burnout beyond the effects of negative affectivity: job-focused emotional labor (work demands regarding emotion expression) and employee focused emotional labor (regulation of feelings and emotional expression). Significant differences existed in the emotional demands reported by five occupational groupings. The use of surface-level emotional labor, or faking, predicted depersonalization beyond the work demands. Perceiving the demand to display positive emotions and using deep-level regulation were associated with a heightened sense of personal accomplishment, suggesting positive benefits to this aspect of work. These findings suggest new antecedents of employee burnout and clarify the emotional labor literature by comparing different conceptualizations of this concept.

Job Burnout


Burnout is a prolonged response to chronic emotional and interpersonal stressors on the job, and is defined by the three dimensions of exhaustion, cynicism, and inefficacy. The past 25 years of research has established the complexity of the construct, and places the individual stress experience within a larger organizational context of people’s relation to their work. Recently, the work on burnout has expanded internationally and has led to new conceptual models. The focus on engagement, the positive antithesis of burnout, promises to yield new perspectives on interventions to alleviate burnout. The social focus of burnout, the solid research basis
concerning the syndrome, and its specific ties to the work domain make a distinct and valuable contribution to people's health and well-being.

Job Demands, Job Resources, and their Relationship with Burnout and Engagement: A Multi-Sample Study


This study focuses on burnout and its positive antipode—engagement. A model is tested in which burnout and engagement have different predictors and different possible consequences. Structural equation modeling was used to simultaneously analyze data from four independent occupational samples (total N=41698). Results confirm the hypothesized model indicating that: (1) burnout and engagement are negatively related, sharing between 10 per cent and 25 per cent of their variances; (2) burnout is mainly predicted by job demands but also by lack of job resources, whereas engagement is exclusively predicted by available job resources; (3) burnout is related to health problems as well as to turnover intention, whereas engagement is related only to the latter; (4) burnout mediates the relationship between job demands and health problems, whereas engagement mediates the relationship between job resources and turnover intention. The fact that burnout and engagement exhibit different patterns of possible causes and consequences implies that different intervention strategies should be used when burnout is to be reduced or engagement is to be enhanced.

The Measurement of Engagement and Burnout: A Two Sample Confirmatory Factor Analytic Approach


This study examines the factorial structure of a new instrument to measure engagement, the hypothesized ‘opposite’ of burnout in a sample of university students (N = 314) and employees (N = 619). In addition, the factorial structure of the Maslach-Burnout Inventory-General Survey (MBI-GS) is assessed and the relationship between engagement and burnout is examined. Simultaneous confirmatory factor analyses in both samples confirmed the original three-factor structure of the MBI-GS (exhaustion, cynicism, and professional efficacy) as well as the hypothesized three-factor structure of engagement (vigor, dedication, and absorption). Contrary to expectations, a model with two higher-order factors – ‘burnout’ and ‘engagement’ – did not show a superior fit to the data. Instead, our analyses revealed an alternative model with two latent factors including: (1) exhaustion and cynicism (‘core of burnout’); (2) all three engagement scales plus efficacy. Both latent factors are negatively related and share between 22% and 38% of their variances in both samples. Despite the fact that slightly different versions
of the MBI-GS and the engagement questionnaire had to be used in both samples the results were remarkably similar across samples, which illustrates the robustness of our findings.

5.3 General

Chapter 18: Cultural Adaptation and Resilience Controversies, Issues, and Emerging Models


This chapter examines various factors and processes that influence well-being and quality of life, and the development of resilience as a form of adaptive coping in response to the challenges of immigration. We examine this process of migration and adjustment through a resilience model that examines individual, familial, and community factors as they influence this dynamic process of adjustment to a new host environment. In line with other chapters in this resilience handbook, we also explore definitions and conceptions of resilience in terms of processes and outcomes, and within the context of migration and cultural adaptation.

Adverse Outcomes to Early Middle Age Linked with Childhood Residential Mobility


Introduction: Links between childhood residential mobility and multiple adverse outcomes through to maturity, and effect modification of these associations by familial SES, are incompletely understood. Methods: A national cohort of people born in Denmark in 1971–1997 were followed from their 15th birthdays until their early forties (N=1,475,030). Residential moves during each age year between birth and age 14 years were examined, with follow-up to 2013. Incidence rate ratios for attempted suicide, violent criminality, psychiatric illness, substance misuse, and unnatural and unnatural deaths were estimated. The analyses were conducted during 2014–2015. Results: Elevated risks were observed for all examined outcomes, with excess risk seen among those exposed to multiple versus single relocations in a year. Risks grew incrementally with increasing age of exposure to mobility. For violent offending, attempted suicide, substance misuse, and unnatural death, sharp spikes in risk linked with multiple relocations in a year during early/mid-adolescence were found. With attempted suicide and violent offending, the primary outcomes, a distinct risk gradient was observed with increasing age at exposure across the socioeconomic spectrum. Conclusions: The links between childhood residential mobility and negative outcomes in later life appear widespread across multiple endpoints, with elevation in risk being particularly marked if frequent residential change occurs during early/mid-adolescence. Heightened vigilance is indicated for relocated adolescents and their families, with a view to preventing longer-term adverse outcomes in this population among all socioeconomic groups. Risk management will require close cooperation among multiple public agencies, particularly child, adolescent, and adult mental health services.
Assessment Report: Stress and Resilience Issues Affecting USAID Personnel in High Operational Stress Environments


Key concepts that were used to inform this document throughout are: Stress Awareness – a non-stigmatizing recognition that stress is a biopsychosocial response to adaptation challenges, and that stress affects health, interpersonal behavior, and work performance. Stress Responsiveness – an organization’s adoption of management practices and interventions designed to minimize adaptation challenges, mitigate current stress, care for distressed personnel, and reduce strain on the organization as a whole. Stress Mitigation – Practices and interventions that either prevent or reduce the prevalence/severity of adaptation challenges. Staff Care – Interventions that provide relief, support, or treatment for personnel that have been negatively affected by adaptation challenges. Data and research methods involved site visits, interviews, and an online survey. This analysis is informed by an extensive review of the medical, psychological, and academic literature on stress, trauma, and occupational stresses common in international relief and development. USAID policy documents, systems and support services were reviewed as well. The sources of stress reported by USAID personnel in interviews include: 1. Heavy Workload/Tempo 2. Leadership, Management, and Supervision 3. Organizational, Bureaucratic and Interagency Interactions 4. Human Resources Management and Administrative Support Issues 5. Family Stress 6. High Turnover/“Churn” 7. Severe Contextual Factors 8. Critical Incidents, Traumatic Stress, and PTSD. Numerous standards, good practice examples, and lessons learned exist that USAID can draw upon to develop and implement a systematic, evidence-informed response that will mitigate stress and bolster resilience of USAID personnel. This assessment details many of these.

Bounce Back


Resilience is essentially a set of skills – as opposed to a disposition or personality type – that make it possible for people not only to get through hard times but to thrive during and after them. Resilient people seem to have the capacity to appropriately regulate the subcortical fear circuits under conditions of stress. Expert tips on resilience include: developing a core set of beliefs that nothing can shake, try to find meaning in whatever stressful or traumatic thing that has happened, try to maintain a positive outlook, take cues from someone who is especially resilient, don’t run from things that scare you instead face them, be quite to reach out for support when things go haywire, learn new things as often as you can, find an exercise regimen you’ll stick to, don’t beat yourself up or dwell on the past, and recognize what make you uniquely strong and own it.
Nano Tools for Leaders are fast, effective leadership tools that you can learn and start using in less than 15 minutes — with the potential to significantly impact your success as a leader and the engagement and productivity of the people you lead. The Goal: Build resilience in yourself and your team. Nano Tool: Resilience — the capacity to bounce back from setbacks or to thrive during times of challenge or change — is not a fixed trait. It actually grows out of a set of “learnable” behaviors with results that interact to make you and your team less vulnerable to stress. Whether you’re dealing with the acute stress of sudden challenges, or the chronic stress of daily life, simple daily actions can increase your resilience. We are all resilient to varying degrees, yet everyone can become even more resilient. A wealth of research points to four factors that help people — and teams, and organizations, and countries — become more agile and effective under times of stress. The acronym REAL serves as a mnemonic: Relationships, Efficacy, Affect, and Learning. Strengthening one or more of these factors can significantly improve individual and team performance. R = relationships. We are far more resilient when we are engaged and supported and motivated with and by others. Our ties to others make us stronger, happier, more creative — and more resilient to challenges. E = efficacy. Believing that we make a difference, that we have control and that our actions matter, also builds resilience. Efficacy is about having goals and aspirations and the confidence that we can reach them. A = (positive) affect. When we experience positive emotions (such as happiness, joy, optimism, satisfaction, gratitude, peace, and humor), our bodies relax. Our physical stress, including blood pressure, decreases. Positive affect makes us more creative and better able to find solutions and cope with stress. L = learning. When we find lessons — meaning and peace — in our traumas, injuries, and stress, we are better able to move on, understanding that we have grown, matured, and strengthened as a result of the challenges we have faced.

Building Resilience


Failure is one of life’s most common traumas, yet people’s responses to it vary widely. Some bounce back after a brief period of malaise; others descend into depression and a paralyzing fear of the future. Thirty years of research suggests that resilience can be measured and taught—and the U.S. Army is putting that idea to the test with a program called Comprehensive Soldier Fitness. The aim of CSF is to make soldiers as fit psychologically as they are physically. A key component of CSF is “master resilience training” for drill sergeants—a form of management training that teaches leaders how to embrace resilience and then pass it on, by building mental toughness, signature strengths, and strong relationships. We discovered that people who don’t give up have a habit of interpreting setbacks as temporary, local, and changeable. (“It’s going away quickly; it’s just this one situation, and I can do something about it.”) That suggested how we might immunize people against learned helplessness, against depression and anxiety, and against giving up after failure: by teaching them to think like optimists.
Building Resiliency: The New Business Imperative


The Human Performance Institute, Inc. (HPI) has more than 30 years’ experience consulting tens of thousands of business leaders. In 2010, HPI initiated a new study of business executives to understand the extent of damage done to workplace resiliency in recent years. The study covered some sobering statistics. More than 62% of respondents report a rise in emotional or physical burnout in 2009 compared to the previous 12 months. Fifty-seven percent report a significant drop in morale and 38% report greater disengagement. Resilience is a person’s capacity to respond to chaotic disruption and unforeseen change, by bouncing back with speed and grace. Like the principle for how you build and strengthen muscles in the body, resilience is an acquired ability to skillfully oscillate between cycles of stress and recovery. Stress is energy-out and recovery in energy-in. Both are essential ingredients in the formula of resiliency. Managing stress means ushering the restorative forces of healing and renewal thereby rebuilding energy reserves. One of the best measures of resilience is speed of recovery.

Chapter 17 – Assessing Psycho-Social Resilience in Diplomatic, Civilian and Military Personnel Serving in a High Threat Security Environment: Counter Insurgency and Counter Terrorism Operations in Iraq

Speckhard, A., Verleye, G., & Jacuch, B. Chapter 17 – Assessing psycho-social resilience in diplomatic, civilian and military personnel serving in a high threat security environment: Counter insurgency and counter terrorism operations in Iraq. NATO OTAN, 1-20.

Currently thousands of military, diplomatic and civilian personnel are deployed under NATO, UN, and other multi-national, as well as national auspices in high security threat environments, including active conflict zones such as Iraq and Afghanistan. Soldiers are generally well trained and prepared psychologically to face armed conflict. Civilian contractors and diplomats on the other hand often are not. Moreover in today’s high threat security environments terrorists, insurgents and even child soldiers may be the opposing force, creating a more uncertain and anxiety provoking environment and more difficult to identity security threat. These facts have serious implications for the psycho-social resilience of diplomatic, civilian and military personnel deployed in such environments. This paper investigates psycho-social resilience in a small exploratory sample of US embassy staff, contractors and US forces serving in Iraq during 2007, a time when IEDs, roadside bombings, mortar attacks, kidnaps, murders and sniper fire were an everyday occurrence in Iraq.
Chapter 19: Cultural Dimensions of Resilience Among Adults


The first book to move beyond childhood and adolescence to explore processes of resilience across the lifespan, this cutting-edge volume synthesizes the best current research in the field. Contributors offer a comprehensive examination of resilience at multiple levels of analysis, from genetic and physiological factors through individual, family, and community processes. Compelling topics include: Whether resilience is best understood as a trait, a dynamic developmental process, an outcome, or all of the above; How resilience intersects with health and well-being across the adult life cycle; Cross-cultural issues in conceptualization and measurement; Ways to enhance adult resilience, including reviews of exemplary programs.

Deployment Guidelines for Diplomats: Current Policy and Practice


Background: Diplomatic organizations routinely send staff to high-threat postings (HTPs) and consequentially have moral and legal obligations to protect their health as far as is reasonably practicable. Aims: To carry out an international survey of diplomatic organizations that send personnel to HTPs to establish how they deal practically with their obligations to protect the mental health of their staff. Methods: An online anonymous survey about their organizations’ policies relating to HTPs completed by international diplomatic organizations. Results: Fourteen of 30 organizations approached completed the questionnaire, with a response rate of 47%. Deployment length varied: no minimum (15%), a minimum of 2 years (39%) and a maximum of 2 (31%), 3 (15%) or 4 years (31%); one organization did not state any maximum. HTP and low threat postings had the same policies in 46% of organizations. Additional care and support (66%), additional preparation (50%), enhanced leave (33%) and additional physical and mental health assessments were informally adopted to address psychosocial risks of deployment to HTPs. Conclusions: There was little consensus on policies and practice for HTP deployment. We suggest that formal, consistently written guidelines, based on available quality evidence, and associated training and quality assurance should be formulated to make international practice more consistent and equitable.
Development of a New Multidimensional Individual and Interpersonal Resilience Measure for Older Adults


Objectives: Develop an empirically grounded measure that can be used to assess family and individual resilience in a population of older adults (aged 50–99). Methods: Cross-sectional, self-report data from 1006 older adults were analyzed in two steps. The total sample was split into two subsamples and the first step identified the underlying latent structure through principal component exploratory factor analysis (EFA). The second step utilized the second half of the sample to validate the derived latent structure through confirmatory factor analysis (CFA). Results: EFA produced an eight-factor structure that appeared clinically relevant for measuring the multidimensional nature of resilience. Factors included self-efficacy, access to social support network, optimism, perceived economic and social resources, spirituality and religiosity, relational accord, emotional expression and communication, and emotional regulation. CFA confirmed the eight-factor structure previously achieved with covariance between each of the factors. Based on these analyses we developed the multidimensional individual and interpersonal resilience measure, a broad assessment of resilience for older adults. Conclusion: This study highlights the multidimensional nature of resilience and introduces an individual and interpersonal resilience measure developed for older adults which is grounded in the individual and family resilience literature.

Does Venting Anger Feed or Extinguish the Flame? Catharsis, Rumination, Distraction, Anger, and Aggressive Responding

Bushman, B. J. (2002). Does venting anger feed or extinguish the flame? Catharsis, rumination, distraction, anger, and aggressive responding. The Society for Personality and Social Psychology, 28(6), 724-731.

Does distraction or rumination work better to diffuse anger? Catharsis theory predicts that rumination works best, but empirical evidence is lacking. In this study, angered participants hit a punching bag and thought about the person who had angered them (rumination group) or thought about becoming physically fit (distraction group). After hitting the punching bag, they reported how angry they felt. Next, they were given the chance to administer loud blasts of noise to the person who had angered them. There also was a no punching bag control group. People in the rumination group felt angrier than did people in the distraction or control groups. People in the rumination group were also most aggressive, followed respectively by people in the distraction and control groups. Rumination increased rather than decreased anger and aggression. Doing nothing at all was more effective than venting anger. These results directly contradict catharsis theory.
Don Meichenbaum’s Handouts for Psychotherapy Networker Symposium


This book will provide a roadmap on ways to improve your level of resilience. We will begin with a brief discussion of the concept and definition of resilience and some facts about resilience. Then we will consider the research evidence of examples of the adjustment capacity of returning service members, family members, and civilians to successfully adapt to adversity. The major portion of this book will be to provide specific practical “How To” ways to improve your level of resilience and fitness in six important areas: 1) physical fitness, 2) interpersonal fitness, 3) emotional fitness, 4) thinking (or cognitive) fitness, 5) behavioral fitness, and 6) spiritual fitness. You will be given an opportunity to create your own “tool kit” of resilient-bolstering behaviors that can help in the transition from military to civilian life. The military has taught service members how to prepare for combat and military activities. This guidebook is designed as a roadmap to help individuals meet the challenges of post-deployment. Although many of the examples offered were created with the returning Service members in mind, these same resilience-bolstering activities apply equally well to the general civilian population.

Emotion Regulation: Taking Stock and Moving Forward


The field of emotion regulation has now come of age. However, enthusiasm for the topic continues to outstrip conceptual clarity. In this article, I review the state of the field. I do this by asking—and attempting to succinctly answer—10 fundamental questions concerning emotion regulation, ranging from what emotion regulation is, to why it matters, to how we can change it. I conclude by considering some of the challenges that confront this rapidly growing field.

Emotional Processing in Personality Disorder


In the field of personality disorders, borderline and antisocial types are associated with emotional dysfunctioning. In borderline personality disorder (BPD), the hypothesis of emotional hyperresponsiveness can be supported by several experimental studies that suggest highly intensive and slowly subsiding emotions to primed and non-primed stimuli, as well as by data showing biased information, which processes in the context of emotions. In addition, the first neuroimaging data suggest that limbic hypersensitivity is a neurofunctional correlate of emotional vulnerability in BPD. In antisocial psychopathic personality disorder, data confirm the theory of emotional detachment, subsuming fearlessness, and, beyond that, emotional indifference to appetitive stimuli. Because of a fundamental dysfunction in the amygdala,
psychopathic individuals appear to use alternative cognitive operations of processing affective material to compensate for the absence of appropriate limbic input, which normally provides prompt information about the affective characteristics of stimuli.

First Do No Self Harm: Understanding and Promoting Physician Stress Resilience


The author discusses his career as a psychiatrist in this chapter. He notes that throughout his career he has seen the problems of physicians placing their work ahead of family and friends and having a life, even though some saw themselves as role models. Psychiatrists, like other physicians working in the Hippocratic tradition, place their patients first. Sometimes physicians act on emotions they do not fully understand, and this is a reflection of their need to rescue, not just treat, patients. As a result physicians experience a sense of failure when their patient's illness goes unaffected by their treatment program. These physicians often feel powerlessness, a sense of loss, grief, and fear of becoming ill themselves, or they make efforts to wall themselves off from patients and their families, thereby reducing their effectiveness. The author offers some suggestions to avoid this and other pitfalls.

Flexible Control in Processing Affective and Non-Affective Material Predicts Individual Differences in Trait Resilience


Trait resilience is a stable personality characteristic that involves the self-reported ability to flexibly adapt to emotional events and situations. The present study examined cognitive processes that may explain individual differences in trait resilience. Participants completed self-report measures of trait resilience, cognitive flexibility and working memory capacity tasks, and a novel affective task switching paradigm that assesses the ability to flexibly switch between processing the affective versus non-affective qualities of affective stimuli (i.e., flexible affective processing). As hypothesized, cognitive flexibility and flexible affective processing were unique predictors of trait resilience. Working memory capacity was not predictive of trait resilience, indicating that trait resilience is tied to specific cognitive processes rather than overall better cognitive functioning. Cognitive flexibility and flexible affective processing were not associated with other trait measures, suggesting that these flexibility processes are unique to trait resilience. This study was among the first to investigate the cognitive abilities underlying trait resilience.
How Much Do We Really Know About Employee Resilience?


Past research purporting to study employee resilience suffers from a lack of conceptual clarity about both the resilience construct and the methodological designs that examine resilience without ensuring the occurrence of significant adversity. The overall goal of this article is to address our contemporary understanding of employee resilience and identify pathways for the future advancement of resilience research in the workplace. We first address conceptual definitions of resilience both inside and outside of industrial and organizational psychology and make the case that researchers have generally failed to document the experience of significant adversity when studying resilience in working populations. Next, we discuss methods used to examine resilience, with an emphasis on distinguishing the capacity for resilience and the demonstration of resilience. Representative research is then reviewed by examining self-reports of resilience or resilience-related traits along with research on resilient and nonresilient trajectories following significant adversity. We then briefly address the issues involved in selecting resilient employees and building resilience in employees. The article concludes with recommendations for future research studying resilience in the workplace, including documenting significant adversity among employees, assessing multiple outcomes, using longitudinal designs with theoretically supported time lags, broadening the study of resilience to people in occupations outside the military who may face significant adversity, and addressing the potential dark side of an emphasis on resilience.

How People Learn to Become Resilient


Norman Garmezy, a developmental psychologist and clinician at the University of Minnesota is widely credited with being the first to study the concept of resilience in an experimental setting. Its only when you’re faced with obstacles, stress, and other environmental threats that resilience, or the lack of it, emerges: Do you succumb or do you surmount? Perception is key to resilience: Do you conceptualize an event as traumatic, or as a chance to learn and grow? The experience isn’t inherent in the event, it resides in the event’s psychological construal. Resilient children tended to meet the world on their own terms. They were autonomous and independent, would seek out new experiences, and had a positive social orientation. Though not especially gifted, these children used whatever skills they had effectively. Resilient children had an internal locus of control where they believed that they not their circumstances affected their achievements. Seligman found that training people to change their explanatory styles from internal to external (“Bad events aren’t my fault”), from global to specific (“This is one narrow thing rather than a massive indication that something is wrong with my life”), and from permanent to impermanent (“I can change the situation, rather than assuming it’s fixed”) made them more psychologically successful and less prone to depression. A more internal locus is tied to perceiving less stress and
performing better and changing your locus from external to internal leads to positive changes in both psychological well-being and objective work performance.

How Resilience Works


These are dark days: people are losing jobs, taking pay cuts, suffering foreclosure on their homes. Some of them are snapping—sinking into depression or suffering a permanent loss of confidence. But others are snapping back; for example, taking advantage of a layoff to build a new career. What carries them through tough times? Resilience. Resilient people possess three defining characteristics: They coolly accept the harsh realities facing them. They find meaning in terrible times. And they have an uncanny ability to improvise, making do with whatever’s at hand. In deep recessions, resilience becomes more important than ever. Fortunately, you can learn to be resilient. Resilience can help you survive and recover from even the most brutal experiences. To cultivate resilience, apply these practices: Face Down Reality: Instead of slipping into denial to cope with hardship, take a sober, down-to-earth view of the reality of your situation. You’ll prepare yourself to act in ways that enable you to endure—training yourself to survive before the fact. Example: Admiral Jim Stockdale survived being held prisoner and tortured by the Vietcong in part by accepting he could be held for a long time. (He was held for eight years.) Those who didn’t make it out of the camps kept optimistically assuming they’d be released on shorter timetables—by Christmas, by Easter, by the Fourth of July. “I think they all died of broken hearts,” Stockdale said. Search For Meaning: When hard times strike, resist any impulse to view yourself as a victim and to cry, “Why me?” Rather, devise constructs about your suffering to create meaning for yourself and others. You’ll build bridges from your present-day ordeal to a fuller, better future. Those bridges will make the present manageable, by removing the sense that the present is overwhelming. Example: Austrian psychiatrist and Auschwitz survivor Victor Frankl realized that to survive the camp, he had to find some purpose. He did so by imagining himself giving a lecture after the war on the psychology of the concentration camp to help outsiders understand what he had been through. By creating concrete goals for himself, he rose above the sufferings of the moment. Continually Improvise: When disaster hits, be inventive. Make the most of what you have, putting resources to unfamiliar uses and imagining possibilities others don’t see. Example: Mike founded a business with his friend Paul, selling educational materials to schools, businesses, and consulting firms. When a recession hit, they lost many core clients. Paul went through a bitter divorce, suffered a depression, and couldn’t work. When Mike offered to buy him out, Paul slapped him with a lawsuit claiming Mike was trying to steal the business. Mike kept the company going any way he could—going into joint ventures to sell English-language training materials to Russian and Chinese competitors, publishing newsletters for clients, and even writing video scripts for competitors. The lawsuit was eventually settled in his favor, and he had a new and much more solid business than the one he started out with.
How to Bounce Back from Adversity


Psychological resilience —the capacity to respond quickly and constructively in a crisis—can be hard to muster when a manager is paralyzed by fear, anger, confusion, or a tendency to assign blame. Resilient managers shift quickly from endlessly dissecting traumatic events to looking forward, determining the best course of action given new realities. They understand the size and scope of the crisis and the levels of control and impact they may have in a bad situation. The authors describe a resilience regimen—a series of pointed questions designed to help managers replace negative responses with creative, resourceful ones and to move forward despite real or perceived obstacles.

Identifying International Assignees At Risk for Premature Departure: The Interactive Effect of Outcome Favorability and Procedural Fairness


Two studies examined factors that predict expatriate managers' tendencies to think seriously about departing prematurely from their international assignments. Previous research (conducted outside of the expatriate context) has shown that individuals’ willingness to stay with or leave their positions is an interactive function of outcome favorability and procedural fairness. A conceptually analogous interaction effect was found in the present studies. Whereas expatriates more seriously thought of departing prematurely when they perceived the non-work-related outcomes of their overseas assignments to be less favorable, this tendency was much less pronounced when procedural fairness was relatively high. Theoretical and practical implications are discussed, as are limitations of the studies and suggestions for future research.

Individual Resiliency Factors from a Genetic Perspective: Results from a Twin Study


This article is part of the Twin Mother's Study, a study that examines influences on maternal adjustment. A number of studies have investigated the importance of genetic factors for mental health, but few of these examine how genes and the environment influence resiliency/salutogenic factors. This article investigates the relative importance of genetic and environmental influences on resiliency/salutogenic factors. This study includes 326 twin pairs (150 monozygotic and 176 dizygotic) who are mothers, who are living with their spouse, and who are part of the Swedish twin register. Using self-report structured questionnaires, we assessed salutogenic factors, depression, and quality of life; however, we analyzed the questionnaires completed by the
mothers. Statistical analyses were conducted using structural equation modeling. We conclude that nonshared environmental components were of principal importance in individual resiliency/salutogenic factors in a genetically informative design, but we also noted that genetic influences were important. The shared environment had mainly no effect.

**Insecure Attachment and Depressive Symptoms: The Mediating Role of Rumination, Empathy, and Forgiveness**


The authors investigated the associations between attachment, empathy, rumination, forgiveness, and depressive symptoms via the framework of attachment theory. Participants (N = 221; 141 F and 80 M) completed a battery of questionnaires. We hypothesized that (a) anxious and avoidant attachment would be negatively linked to dispositional forgiveness; (b) the anxious attachment–forgiveness link would be mediated through excessive rumination; (c) the avoidance attachment–forgiveness link would be mediated through lack of empathy; and (d) the insecure attachment–depression relation would, in turn, be partially mediated by the forgiveness process. SEM modeling confirmed these propositions, revealing the potential deleterious outcomes associated with insecure attachment and unforgiving responses to offenses.

**Is Screening for the Psychological Effects of War Useful?**


The extensive documentation of the psychological injuries arising as a consequence of conflict in the Middle East highlights the crucial need to establish how this morbidity can be minimized and prevented. A 2014 report from the Institute of Medicine recommended only one evidence-based intervention: mental health screening. The USA, Canada, the Netherlands, and Australia use the approach of post-deployment screening. However, debate about the benefit of post-deployment screening is ongoing. Further, research should examine the effects of screening in the setting of advice provided by a clinician rather than a computer and in the setting of a clinical service in which the adequacy of subsequent care is critiqued.

**Key Facts on Resilience**


Resilience research holds promise for its potential to inform treatment of stress-related pathology. Likewise, a better understanding of the mechanisms that promote resilience can
inform training programs aimed at preventing maladaptive responses to trauma (e.g., stress inoculation training). However, the emergence of programs offering methods to make individuals resilient suggests the term may be misunderstood. Resilience as a construct has traditionally lacked a consistent, complete and measurable definition. Such definitional ambiguity has partly contributed to the term being incorrectly applied and as a result, asymptomatic individuals are often deemed resilient. Moreover, what were previously known as treatment and training have been renamed “resilience building.” At best, such relabeling might reduce the stigma of traditional mental health treatment. At worst, an expanding use of the term may confound a growing database of evidence-based factors that really do differentiate those who do bounce back from stress from those who don’t. This paper aims to define resilience and provide a brief review of the literature that highlights the key psychosocial factors and biological markers of resilience.

**Locally Employed Staff High Stress Mission Guidance**


More than 300 Locally Employed (LE) Staff from around the world have answered the call to serve temporary duty in Iraq. Hundreds of others serve daily at such high stress posts as Islamabad, Sanaa, Kabul, and Asmara. Employees working in these high threat environments, where violence or terrorism is present, may develop stress related symptoms that impact their work performance. Employees and managers alike face many challenges when local employees demonstrate symptomatic behaviors as result of exposure to high stress situations. “What Mission-supported medical resources are available? How can employees apply for employment benefits (e.g. sick leave) if they suspect stress related symptoms? Can you as a manager direct an employee to seek counseling?” This LE Staff High Stress Mission Guidebook is based on extensive policy and program research in collaboration with various offices throughout the Department, including: Office of Medical Services (MED), Employee Relations (HR/ER), Foreign Service Institute (FSI), Family Liaison Office (FLO), Bureau of Near Eastern Affairs (NEA), and Bureau of East Asian & Pacific Affairs (EAP).

**Managing Stress in Humanitarian Aid Workers: A Survey of Humanitarian Aid Agencies’ Psychosocial Training and Support of Staff**


A survey of humanitarian aid organizations was conducted, addressing their practices with respect to mitigating and managing stress in their field staff. Only 17 of over 100 nongovernmental organizations contacted responded to the survey. Even among those that did respond, the limits on their investment in this area were evident. Few reported even the most perfunctory screening of potential staff with respect to risk factors for adverse responses to
stress. Many failed to provide hands-on training with respect to stress management. Awareness of the role of bureaucratic and organizational actions in reducing stress was limited. Concrete preparation of staff for returning home was all but absent. Implications both of the responses and the lack of responsiveness to the survey are discussed.

Managing Stress in Humanitarian Workers – Guidelines for Good Practice


The Guidelines for Good Practice are intended to help organizations define their own needs in relation to stress management and develop their own staff care system. The process will be different for each organization. National and international agencies, big and small organizations, will have to find the process and policies that work for them. The eight principles – policy, screening and assessing, preparation and training, monitoring, ongoing support, crisis support and management, end of assignment support, and post assignment support – suggested in the Guidelines can be universally applied, but they will be implemented using indicators based on the specific context and culture of the organization. The guidelines for good practice include: 1) The agency has a written and active policy to prevent or mitigate the effects of stress. 2) The agency systematically screens and/or assesses the capacity of staff to respond to and cope with the anticipated stresses of a position or contract. 3) The agency ensures that all staff have appropriate pre-assignment preparation and training in managing stress. 4) The agency ensures that staff response to stress is monitored on an ongoing basis. 5) The agency provides training and support on an ongoing basis to help its staff deal with their daily stresses. 6) The agency provides staff and teams with specific culturally appropriate support in the wake of critical or traumatic incidents and other unusual and unexpected sources of severe stress. 7) The agency provides practical, emotional, and culturally-appropriate support for staff at the end of an assignment or contract. 8) The agency has clear written policies which respect to the ongoing support it will offer to staff that have been adversely impacted by exposure to stress and trauma during their assignment. Protocols and policies for stress management may vary from just one page to a fully worked, comprehensive document. In all cases, however, the managers of the organizations will need to feel responsible for the implementation. We hope these principles will assist them in this task.

Moral Injury


The term moral injury has recently begun to circulate in the literature on psychological trauma. It has been used in two related, but distinct, senses; differing mainly in the “who” of moral agency. Moral injury is present when there has been (a) a betrayal of “what’s right”; (b) either by a person in legitimate authority (my definition), or by one’s self—“I did it” (Litz, Maguen, Nash, et al.); (c) in a high stakes situation. Both forms of moral injury impair the capacity for trust and
elevate despair, suicidality, and interpersonal violence. They deteriorate character. Clinical challenges in working with moral injury include coping with [1] being made witness to atrocities and depravity through repeated exposure to trauma narratives, [2] characteristic assignment of survivor’s transference roles to clinicians, and [3] the clinicians’ countertransference emotions and judgments of self and others. A trustworthy clinical community and, particularly, a well-functioning clinical team provide protection for clinicians and are a major factor in successful outcomes with morally injured combat veterans.

Pre-Deployment Stress Briefing: Does It Have An Effect?


Background: The role of giving information about stress and stress reactions to people about to be exposed to hazardous situations remains unclear. Such information might improve coping and hence resilience. Alternatively, it might increase the expectancy of experiencing adverse psychological consequences following exposure to a hazard. Aim: To determine the effect of a pre-operational stress briefing on health and occupational indices among Naval and Marine personnel who were subsequently deployed to the 2003 Iraq War. Method: Controlled, non-randomized, parallel group study. Mental health outcomes post-deployment were compared between those who received a pre-operational stress briefing and those who did not receive such a briefing. Results: Stress briefing attendees were slightly younger, more likely to be marines and to have been exposed to traumatic events than non-attendees. There were no significant differences between the two groups for the health outcomes of common mental health disorders, post-traumatic stress disorder or alcohol misuse. Attendees reported higher morale/cohesion but these differences disappeared following adjustment for demographic and military factors. No differences between the two groups were apparent for experiencing problems during or post-deployment or for marital satisfaction. Conclusions: We found no evidence that a pre-deployment stress briefing reduced subsequent medium-term psychological distress. On the other hand, we found no evidence of harm either. While only a randomize trial can give genuinely unbiased results, at present stress debriefing must be regarded as an unproven intervention, and it remains a matter of judgement as to whether or not it is indicated.

Psychobiological Mechanisms of Resilience and Vulnerability: Implications for Successful Adaptation to Extreme Stress


Objective: Most research on the effects of severe psychological stress has focused on stress-related psychopathology. Here, the author develops psychobiological models of resilience to extreme stress. Method: An integrative model of resilience and vulnerability that encompasses
the neurochemical response patterns to acute stress and the neural mechanisms mediating reward, fear conditioning and extinction, and social behavior is proposed. Results: Eleven possible neurochemical, neuropeptide, and hormonal mediators of the psychobiological response to extreme stress were identified and related to resilience or vulnerability. The neural mechanisms of reward and motivation (hedonia, optimism, and learned helpfulness), fear responsiveness (effective behaviors despite fear), and adaptive social behavior (altruism, bonding, and teamwork) were found to be relevant to the character traits associated with resilience. Conclusions: The opportunity now exists to bring to bear the full power of advances in our understanding of the neurobiological basis of behavior to facilitate the discoveries needed to predict, prevent, and treat stress-related psychopathology.

Psychological Distress, Depression, Anxiety, and Burnout Among International Humanitarian Aid Workers: A Longitudinal Study


Background: International humanitarian aid workers providing care in emergencies are subjected to numerous chronic and traumatic stressors. Objectives: To examine consequences of such experiences on aid workers’ mental health and how the impact is influenced by moderating variables. Methodology: We conducted a longitudinal study in a sample of international non-governmental organizations. Study outcomes included anxiety, depression, burnout, and life and job satisfaction. We performed bivariate regression analyses at three time points. We fitted generalized estimating equation multivariable regression models for the longitudinal analyses. Results: Study participants from 19 NGOs were assessed at three time points: 212 participated at pre-deployment; 169 (80%) post-deployment; and 154 (73%) within 3–6 months after deployment. Prior to deployment, 12 (3.8%) participants reported anxiety symptoms, compared to 20 (11.8%) at post-deployment (p = 0.0027); 22 (10.4%) reported depression symptoms, compared to 33 (19.5%) at post-deployment (p = 0.0117) and 31 (20.1%) at follow-up (p = .00083). History of mental illness (adjusted odds ratio [AOR] 4.2; 95% confidence interval [CI] 1.45–12.50) contributed to an increased risk for anxiety. The experience of extraordinary stress was a contributor to increased risk for burnout depersonalization (AOR 1.5; 95% CI 1.17–1.83). Higher levels of chronic stress exposure during deployment were contributors to an increased risk for depression (AOR 1.1; 95% CI 1.02–1.20) comparing post- versus pre-deployment, and increased risk for burnout emotional exhaustion (AOR 1.1; 95% CI 1.04–1.19). Social support was associated with lower levels of depression (AOR 0.9; 95% CI 0.84–0.95), psychological distress (AOR = 0.9; [CI] 0.85–0.97), burnout lack of personal accomplishment (AOR 0.95; 95% CI 0.91–0.98), and greater life satisfaction (p = 0.0213). Conclusions: When recruiting and preparing aid workers for deployment, organizations should consider history of mental illness and take steps to decrease chronic stressors, and strengthen social support networks.
Psychological Resilience and the Gene Regulatory Impact of Posttraumatic Stress in Nepali Child Soldiers


Adverse social conditions in early life have been linked to increased expression of proinflammatory genes and reduced expression of antiviral genes in circulating immune cells—the conserved transcriptional response to adversity (CTRA). However, it remains unclear whether such effects are specific to the Western, educated, industrialized, rich, and democratic (WEIRD) cultural environments in which previous research has been conducted. To assess the roles of early adversity and individual psychological resilience in immune system gene regulation within a non-WEIRD population, we evaluated CTRA gene-expression profiles in 254 former child soldiers and matched noncombatant civilians 5 y after the People’s War in Nepal. CTRA gene expression was up-regulated in former child soldiers. These effects were linked to the degree of experienced trauma and associated distress—that is, posttraumatic stress disorder (PTSD) severity—more than to child soldier status per se. Self-perceived psychological resilience was associated with marked buffering of CTRA activation such that PTSD-affected former child soldiers with high levels of personal resilience showed molecular profiles comparable to those of PTSD-free civilians. These results suggest that CTRA responses to early life adversity are not restricted to WEIRD cultural contexts and they underscore the key role of resilience in determining the molecular impact of adverse environments.

Psychological Resilience, Positive Emotions, and Successful Adaptation to Stress in Later Life


In 3 studies, the authors investigated the functional role of psychological resilience and positive emotions in the stress process. Studies 1a and 1b explored naturally occurring daily stressors. Study 2 examined data from a sample of recently bereaved widows. Across studies, multilevel random coefficient modeling analyses revealed that the occurrence of daily positive emotions serves to moderate stress reactivity and mediate stress recovery. Findings also indicated that differences in psychological resilience accounted for meaningful variation in daily emotional responses to stress. Higher levels of trait resilience predicted a weaker association between positive and negative emotions, particularly on days characterized by heightened stress. Finally, findings indicated that over time, the experience of positive emotions functions to assist high-resilient individuals in their ability to recover effectively from daily stress. Implications for research into protective factors that serve to inhibit the scope, severity, and diffusion of daily stressors in later adulthood are discussed.
Psychological Resilience


This report investigates new insights in contemporary psychological resilience research. The research draws on peer reviewed articles examining how psychological resilience is built through protective mechanisms, evolves as a dynamic psychosocial process, and can be facilitated through positive adaptation. This research highlights how experiences of coping with traumatic shocks and stresses vary according to age, gender, culture, and socioeconomic status, and how future lines of research can illuminate biological, psychosocial, and lifecycle factors and skills that can support resilience a priori to a shock.

Regulatory Flexibility: An Individual Differences Perspective on Coping and Emotion Regulation


People respond to stressful events in different ways, depending on the event and on the regulatory strategies they choose. Coping and emotion regulation theorists have proposed dynamic models in which these two factors, the person and the situation, interact over time to inform adaptation. In practice, however, researchers have tended to assume that particular regulatory strategies are consistently beneficial or maladaptive. We label this assumption the fallacy of uniform efficacy and contrast it with findings from a number of related literatures that have suggested the emergence of a broader but as yet poorly defined construct that we refer to as regulatory flexibility. In this review, we articulate this broader construct and define both its features and limitations. Specifically, we propose a heuristic individual differences framework and review research on three sequential components of flexibility for which propensities and abilities vary: sensitivity to context, availability of a diverse repertoire of regulatory strategies, and responsiveness to feedback. We consider the methodological limitations of research on each component, review questions that future research on flexibility might address, and consider how the components might relate to each other and to broader conceptualizations about stability and change across persons and situations.

Resilience: An Update


Most individuals are resilient and able to successfully deal with a wide range of life stressors and traumas. In fact, Masten (2001) coined the term “ordinary magic” to point out that resilience is not rare. Humans are endowed with natural protective systems that help them adapt to change.
and adversity. However, in order for these protective systems to develop and operate effectively individuals need basic social and material resources, and, ideally, healthy family and community environments (see discussion in Southwick, Bonanno, Masten, Panter-Brick & Yehuda, 2014). In the future, it will be important to investigate resilience from multiple perspectives and levels of analysis. Genetic, epigenetic, developmental, psychological, cognitive, biological, social, cultural and religious/spiritual factors all play a role in how one responds to stress, trauma, and the challenges of life. While it is important for researchers to investigate general principles related to characterizing and enhancing resilience, it is also important to recognize that no two people are exactly alike and that determinants of resilience may vary from one person to the next. With the shift from a pure deficit model of trauma-related psychological outcomes to one that includes both natural and supported resilience, the field of traumatic stress/resilience can ultimately develop increasingly effective strategies to help people negotiate and potentially grow from stress and adversity.

Resilience and Mental Health


The relationship between disease and good health has received relatively little attention in mental health. Resilience can be viewed as a defense mechanism, which enables people to thrive in the face of adversity and improving resilience may be an important target for treatment and prophylaxis. Though resilience is a widely-used concept, studies vary substantially in their definition, and measurement. Above all, there is no common underlying theoretical construct to this very heterogeneous research which makes the evaluation and comparison of findings extremely difficult. Furthermore, the varying multi-disciplinary approaches preclude meta-analysis, so that clarification of research in this area must proceed firstly by conceptual unification. We attempt to collate and classify the available research around a multi-level biopsychosocial model, theoretically and semiotically comparable to that used in describing the complex chain of events related to host resistance in infectious disease. Using this underlying construct we attempt to reorganize current knowledge around a unitary concept in order to clarify and indicate potential intervention points for increasing resilience and positive mental health.

Resilience as a Dynamic Concept


The concept of resilience has as its starting point the recognition that there is huge heterogeneity in people’s responses to all manner of environmental adversities. Resilience is an inference based on evidence that some individuals have a better outcome than others who have experienced a comparable level of adversity; moreover, the negative experience may have either a sensitizing effect or a strengthening “steeling” effect in relation to the response to later stress or adversity. After noting the crucial importance of first testing for the environmental mediation of risk through “natural experiments,” findings are reviewed on “steeling effects” in animal models and
humans. Gene–environment interaction findings are considered, and it is noted that there is some evidence that the genetic influences concerns responsivity to all environments and not just bad ones. Life course effects are reviewed in relation to evidence on turning point effects associated with experiences that increase opportunities and enhance coping. Attention is drawn to both research implications and substantive findings as features that foster resilience.

Resilience Definitions, Theory, and Challenges: Interdisciplinary Perspectives


In this paper, inspired by the plenary panel at the 2013 meeting of the International Society for Traumatic Stress Studies, Dr. Steven Southwick (chair) and multidisciplinary panelists Drs. George Bonanno, Ann Masten, Catherine Panter-Brick, and Rachel Yehuda tackle some of the most pressing current questions in the field of resilience research including: (1) how do we define resilience, (2) what are the most important determinants of resilience, (3) how are new technologies informing the science of resilience, and (4) what are the most effective ways to enhance resilience? These multidisciplinary experts provide insight into these difficult questions, and although each of the panelists had a slightly different definition of resilience, most of the proposed definitions included a concept of healthy, adaptive, or integrated positive functioning over the passage of time in the aftermath of adversity. The panelists agreed that resilience is a complex construct and it may be defined differently in the context of individuals, families, organizations, societies, and cultures. With regard to the determinants of resilience, there was a consensus that the empirical study of this construct needs to be approached from a multiple level of analysis perspective that includes genetic, epigenetic, developmental, demographic, cultural, economic, and social variables. The empirical study of determinates of resilience will inform efforts made at fostering resilience, with the recognition that resilience may be enhanced on numerous levels (e.g., individual, family, community, culture).

Resilience in the Transition to Adulthood


The emerging adulthood years, commonly defined as the late teens and twenties, represent a period of significant variability and change for much of the population. Thus, it is important for the field to consider pathways of at-risk youth as they move through this key window of development. We review research on positive outcomes in the transition to adulthood following a history of experienced adversity, including both investigations focused on resilience in diverse specific populations as well as broader longitudinal studies. There is compelling evidence for major protective and promotive factors identified in younger age periods continuing to exert an influence at this stage of development, along with evidence for new factors unique to this
developmental time and/or to specific populations. We conclude by noting recommendations for future work in this area, emphasizing Garmezy’s call for the testing of competing models.

Smiling in the Face of Adversity: The Interpersonal and Intrapersonal Functions of Smiling


This study examined hypothesized interpersonal and intrapersonal functions of smiling in positive and negative affective contexts. Smiles were measured during a lab-based monologue task following either happy or sad emotion-evoking films. Psychological adjustment and social integration were measured longitudinally using data obtained in years prior to and after the experimental task. Duchenne (genuine) smiles predicted better long-term adjustment and this effect was mediated independently by both social integration and undoing of negative emotion during the monologue. These effects were observed only in the negative affective context. Non-Duchenne smiles were not related to psychological adjustment. Neither Duchenne nor non-Duchenne smiles during the monologue task were related to personality variables assessed in this study.

Stress Inoculation Training


This article outlines the theory, research, and procedures of stress inoculation training (SIT). SIT consists of three overlapping phases. The first phase, conceptualization, is an education phase that emphasizes the development of a warm, collaborative relationship through which a careful assessment and problem reconceptualization are completed. The second phase, skill acquisition and rehearsal, target and develop a repertoire of palliative and instrumental coping skills for anxiety reduction. A table of common cognitive coping skills is included to exemplify the range of coping skills employed. The third phase, application and follow-through, focuses upon activities that transfer coping skills to real life and prevent relapse. Finally, guidelines for the selection and design of individual and group application of stress inoculation training are provided.

Subjective Well-Being: Measuring Happiness, Suffering, and Other Dimensions of Experience


Subjective well-being refers to how people experience and evaluate their lives and specific domains and activities in their lives. This information has already proven valuable to researchers, who have produced insights about the emotional states and experiences of people belonging to
different groups, engaged in different activities, at different points in the life course, and
involved in different family and community structures. Research has also revealed relationships
between people’s self-reported, subjectively assessed states and their behavior and decisions.
Research on subjective well-being has been ongoing for decades, providing new information
about the human condition. During the past decade, interest in the topic among policy makers,
national statistical offices, academic researchers, the media, and the public has increased
markedly because of its potential for shedding light on the economic, social, and health
conditions of populations and for informing policy decisions across these domains. Subjective
Well-Being: Measuring Happiness, Suffering, and Other Dimensions of Experience explores the
use of this measure in population surveys. This report reviews the current state of research and
evaluates methods for the measurement. In this report, a range of potential experienced well-
being data applications are cited, from cost-benefit studies of health care delivery to commuting
and transportation planning, environmental valuation, and outdoor recreation resource
monitoring, and even to assessment of end-of-life treatment options. Subjective Well-Being finds
that, whether used to assess the consequence of people’s situations and policies that might affect
them or to explore determinants of outcomes, contextual and covariate data are needed alongside
the subjective well-being measures. This report offers guidance about adopting subjective well-
being measures in official government surveys to inform social and economic policies and
considers whether research has advanced to a point which warrants the federal government
collecting data that allow aspects of the population’s subjective well-being to be tracked and
associated with changing conditions.

The Effectiveness of Expatriate Coping Strategies: The Moderating Role of Cultural Distance,
Position Level, and Time on the International Assignment

moderating role of cultural distance, position level, and time on the international
assignment. Journal of Applied Psychology, 90(4), 603-615. doi: 10.10370021-
9010.90.4.603.

On the basis of the stress and coping literature, the authors examined the diverse coping
strategies used by expatriate managers in response to the problems encountered while on
international assignments. It was hypothesized that although problem-focused coping strategies
may be more effective than are emotion-focused coping strategies in affecting cross-cultural
adjustment and intention to remain on the international assignment, the relationship is moderated
by contextual factors such as hierarchical level in the organization, time on the assignment, and
cultural distance. Coded semistructured interview responses from 116 German expatriates on
assignment in either Japan or the United States were analyzed with moderated regression
analyses. The results suggest that the effectiveness of problem-focused coping strategies in
predicting cross-cultural adjustment is moderated by cultural distance and position level but not
by time on the assignment. The use of problem-focused coping strategies was not related to
expatriates’ intention to remain on the assignment.
The Efficacy of Resiliency Training Programs: A Systematic Review and Meta-Analysis of Randomized Trials


Importance: Poor mental health places a burden on individuals and populations. Resilient persons are able to adapt to life’s challenges and maintain high quality of life and function. Finding effective strategies to bolster resilience in individuals and populations is of interest to many stakeholders. Objectives: To synthesize the evidence for resiliency training programs in improving mental health and capacity in 1) diverse adult populations and 2) persons with chronic diseases. Data Sources: Electronic databases, clinical trial registries, and bibliographies. We also contacted study authors and field experts. Study Selection: Randomized trials assessing the efficacy of any program intended to enhance resilience in adults and published after 1990. No restrictions were made based on outcome measured or comparator used. Data Extraction and Synthesis: Reviewers worked independently and in duplicate to extract study characteristics and data. These were confirmed with authors. We conducted a random effects meta-analysis on available data and tested for interaction in planned subgroups. Main Outcomes: The standardized mean difference (SMD) effect of resiliency training programs on 1) resilience/hardiness, 2) quality of life/well-being, 3) self-efficacy/activation, 4) depression, 5) stress, and 6) anxiety. Results: We found 25 small trials at moderate to high risk of bias. Interventions varied in format and theoretical approach. Random effects meta-analysis showed a moderate effect of generalized stress-directed programs on enhancing resilience [pooled SMD 0.37 (95% CI 0.18, 0.57) p = .0002; I² = 41%] within 3 months of follow up. Improvement in other outcomes was favorable to the interventions and reached statistical significance after removing two studies at high risk of bias. Trauma induced stress-directed programs significantly improved stress [20.53 (21.04, 20.03) p = .03; I² = 73%] and depression [20.51 (20.92, 20.10) p = .04; I² = 61%]. Conclusions: We found evidence warranting low confidence that resiliency training programs have a small to moderate effect at improving resilience and other mental health outcomes. Further study is needed to better define the resilience construct and to design interventions specific to it.

The Human Dimensions of Resiliency: A Theory of Contemplative Practices and Resilience


Why do some people crumble under adversity while others bounce back stronger than ever? Challenging situations—from small disappointments to terrible traumas—are a part of daily life, and disruptions such as extreme weather events, conflict and economic dislocation are increasing in frequency. Humans are capable of adapting to a wide variety of difficult physical and psychological circumstances, although in any particular situation, those exhibiting a more resilient state will have a greater ability than others to recover and even flourish. In this paper we define the concept of resilience and build a rationale for how contemplative practices (such as
meditation and yoga) represent an effective means of developing qualities that contribute to resilience. We argue that contemplative practices promote resilience via positive impacts on specific psychobehavioral domains, brain activity, stress response, gene regulation and post-traumatic growth, and we review the evidence supporting these mechanisms. We conclude by exploring how improved individual resilience can strengthen the resilience of larger social networks, and we outline key considerations for future research studying the impact of contemplative practices on resilience.

The Making of a Corporate Athlete


Peak performance in business has often been presented as a matter of sheer brainpower, but we view performance as a pyramid. Physical well-being is its foundation. Above that rests emotional health, then mental acuity, and at the top, a sense of purpose. The Ideal Performance State – peak performance under pressure – is achieved when all levels are working together. Physical capacity builds endurance and promotes mental and emotional recovery. Emotional capacity creates the internal climate that drives the Ideal Performance State. Mental capacity focuses physical and emotional energy on the task and hand, while spiritual capacity provides a powerful source of motivation, determination, and endurance. Rituals that promote oscillation – the rhythmic expenditure and recovery of energy – link the levels of the pyramid. For instance, vigorous exercise can produce a sense of emotional well-being, clearing the way for peak mental performance. The basic strategies for renewing energy as the physical level include: eat five to six small meals a day, go to bed early and wake up early, maintain a consistent bedtime and wake-up time, seek recovery every 90 to 120 minutes, and do at least two weight-training workouts a week. If any of these strategies aren’t part of your life now, their absence may help account for fatigue, irritability, lack of emotional resilience, difficulty concentrating, and even a flagging sense of purpose.

The Metatheory of Resilience and Resiliency


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.
The Mindful Leader


This report details the initial findings of a multi-methods wait-list controlled study conducted with senior leaders who undertook an eight-week ‘Mindful Leader’ program using mindfulness training and practice, along with other elements of leadership development, to foster the capacities of collaboration, resilience, and leading in complexity. Our evidence suggests that the program was effective in developing these capacities and, crucially, our data shows that this effect was reliant on the extent of home practice undertaken. For example, those who practiced more experience improved agility, perspective taking, emotional control and key measures of empathy. More specifically, those who practiced formal mindfulness meditations for ten minutes or more per day over the eight-week period that the program ran were significantly more likely to experience an increase in their resilience and their overall mindfulness. We also, however, established that finding even ten minutes to practice every day can be experienced as challenging by busy senior executives. Based on our course-participant reports, we have formulated the beginnings of a theory of mindful leadership. We suggest that there are three fundamental, higher-order ‘meta-capacities’. They are: improved metacognitive capability (the ability to observe one’s thoughts, feelings, and sensations in the moment) and the attitudes of allowing and curiosity. Between them, they create a ‘space’ which allows more mindful leaders to respond – as opposed to react – to events. This space, in turn, enables a range of cognitive and emotional skills such as focus, emotional regulation, empathy, adaptability and perspective taking, which are vital for successful leadership today. Applying these skills then results in improvements in capacities for resilience, collaboration and leading in complexity. Our findings suggest that mindfulness practice should be considered an important and effective intervention in developing leadership capacity for the 21st century. But one should be under no illusion that it offers a ‘quick win’: sustained mindfulness practice of around ten minutes per day over eight weeks seems to be fundamental in achieving the desired results. This has significant implications for those who are designing, delivering, and participating in mindfulness training programs.

The Neuroscience of True Grit


Convention held that psychological resilience to life’s stresses remained a fairly rare event, a product of lucky genes or good parenting. Research into bereavement and natural disasters has found in recent years that the quality of resilience is, in fact, relatively commonplace. People respond to the worst life has to offer with varied behaviors, some of which might be classified as narcissistic or dysfunctional in some other way. But these behaviors—coping ugly, as one researcher calls it—ultimately help with adaptation in a crisis. The question arises whether interventions to teach resilience—programs already instituted in schools and in the military—will really help if people cope naturally on their own.
The Presence of Resilience is Associated with a Healthier Psychological Profile in ICU Nurses: Results of a National Survey


Objective—ICU nurses are repeatedly exposed to work related stresses resulting in the development of psychological disorders including posttraumatic stress disorder and burnout syndrome. Resilience is a learnable multidimensional characteristic enabling one to thrive in the face of adversity. In a national survey, we sought to determine whether resilience was associated with healthier psychological profiles in intensive care unit nurses. Design—Surveys were mailed to 3500 randomly selected ICU nurses across the United States and included: demographic questions, the Posttraumatic Diagnostic Scale, Hospital Anxiety and Depression Scale, Maslach Burnout Inventory and the Connor-Davidson Resilience Scale. Measurements and Main Results—Overall, 1239 of the mailed surveys were returned for a response rate of 35%, and complete data was available on a total of 744 nurses. Twenty-two percent of the intensive care unit nurses were categorized as being highly resilient. The presence of high resilience in these nurses was significantly associated with a lower prevalence of posttraumatic stress disorder, symptoms of anxiety or depression, and burnout syndrome (<0.001 for all comparisons). In independent multivariable analyses adjusting for five potential confounding variables, the presence of resilience was independently associated with a lower prevalence of posttraumatic stress disorder (p < 0.001), and a lower prevalence of burnout syndrome (p < 0.001).

Conclusions—The presence of psychological resilience was independently associated with a lower prevalence of posttraumatic stress disorder and burnout syndrome in intensive care unit nurses. Future research is needed to better understand coping mechanisms employed by highly resilient nurses and how they maintain a healthier psychological profile.

The Psychobiology of Depression and Resilience to Stress: Implications for Prevention and Treatment


This review discusses neurobiological and psychosocial factors associated with stress-induced depression and compares these factors with those believed to characterize stress resilience. Neurobiological factors that are discussed and contrasted include serotonin, the 5-HT1A receptor, polymorphisms of the 5-HT transporter gene, norepinephrine, alpha-2 adrenergic receptors, neuropeptide Y, polymorphisms of the alpha-2 adrenergic gene, dopamine, corticotropin-releasing hormone (CRH), dehydroepiandrosterone (DHEA), cortisol, and CRH receptors. These factors are described in the context of brain regions believed to be involved in
stress, depression, and resilience to stress. Psychosocial factors associated with depression and/or stress resilience include positive emotions and optimism, humor, cognitive flexibility, cognitive explanatory style and reappraisal, acceptance, religion/spirituality, altruism, social support, role models, coping style, exercise, capacity to recover from negative events, and stress inoculation. The review concludes with potential psychological, social, spiritual, and neurobiological approaches to enhancing stress resilience, decreasing the likelihood of developing stress-induced depression/anxiety, and treating stress-induced psychopathology.

The Roots of Resilience


In the United States, an estimated 50-60% of people will experience a traumatic event at some point in their lives, whether through military combat, assault, a serious car accident or a natural disaster. Acute stress triggers an intense physiological response and cements an association in the brain’s circuits between the event and fear. If this association lingers for more than a month, as it does for about 8% of trauma victims, it is considered to be post-traumatic stress disorder (PTSD). The three main criteria for diagnosis are recurring and frightening memories, avoidance of any potential triggers for such memories and a heightened state of arousal. Scientists have learned that several psychosocial factors – such as strong social networks, recalling and confronting fears and an optimistic outlook – help people to recover. But today, scientists in the field are searching for the biological factors involved. Studies report that people with PTSD, two areas of the brain that are sensitive to stress shrink: the hippocampus, a deep region in the limbic system important for memory, and the anterior cingulate cortex (ACC), a part of the prefrontal cortex that is involved in reasoning and decision-making. This suggests that resilience depends partly on communication between the reasoning circuitry in the cortex and the emotional circuitry of the limbic system. About two-thirds of people diagnosed with PTSD eventually recover.

The Science of Resilience: Implications for the Prevention and Treatment of Depression


Human responses to stress and trauma vary widely. Some people develop trauma-related psychological disorders, such as posttraumatic stress disorder (PTSD) and depression; others develop mild to moderate psychological symptoms that resolve rapidly; still others report no new psychological symptoms in response to traumatic stress. Individual variability in how animals and humans respond to stress and trauma depends on numerous genetic, developmental, cognitive, psychological, and neurobiological risk and protective factors.
Understanding Resilience


Resilience is the ability to adapt successfully in the face of stress and adversity. Stressful life events, trauma, and chronic adversity can have a substantial impact on brain function and structure, and can result in the development of post-traumatic stress disorder (PTSD), depression and other psychiatric disorders. However, most individuals do not develop such illnesses after experiencing stressful life events, and are thus thought to be resilient. Resilience as successful adaptation relies on effective responses to environmental challenges and ultimate resistance to the deleterious effects of stress, therefore a greater understanding of the factors that promote such effects is of great relevance. This review focuses on recent findings regarding genetic, epigenetic, developmental, psychosocial, and neurochemical factors that are considered essential contributors to the development of resilience. Neural circuits and pathways involved in mediating resilience are also discussed. The growing understanding of resilience factors will hopefully lead to the development of new pharmacological and psychological interventions for enhancing resilience and mitigating the untoward consequences.

What Is Health Resilience and How Can We Build It?


Whether a community is in the path of a natural disaster, the target of an act of terror, or simply striving to meet the demands of increasingly dense urban populations, a community resilience paradigm can help communities and individuals not just to mitigate damage and heal, but to thrive. This article discusses experiences from recent, large-scale disasters to explore how community resilience might serve as a sustainable paradigm for organizing public health and medical preparedness, response, and recovery. By strengthening health systems, meeting the needs of vulnerable populations, and promoting organizational competence, social connectedness, and psychological health, community resilience encourages actions that build preparedness, promote strong day-to-day systems, and address the underlying social determinants of health. Thus, community resilience resonates with a wide array of stakeholders, particularly those whose work routinely addresses health, wellness, or societal well-being.
What Resilience Means, and Why It Matters


Resilience was defined by most as the ability to recover from setbacks, adapt well to change, and keep going in the face of adversity. A whopping 75% of workers said that the biggest drain on their resilience reserves was managing difficult people or office politics at work rather than tragedies like the London Tube bombings, appalling business mistakes, or the challenges of the economy. Executives must take four steps in order to become successful in a new way: recognition that their long-honed leadership styles will no longer work; acceptance that it was they who failed in the new role and not outside forces that caused the problem, analysis and understanding of the new type of leadership that’s required, and then decisive action in the new mode. They distill five steps they contend anyone trying to recover from a career catastrophe can use to match or exceed their past accomplishments: decide how to fight back, recruit others to help you emotionally and to land another job, don’t be afraid to criticize the people who let you go, buck yourself up to try again, and find a new mission that renews your passion and creates meaning in your life. The need for resilience can be sidestepped if the environment treats both setbacks and successes as positive learning experiences. Resilient people possess three characteristics – a staunch acceptance of reality, a deep belief, often buttressed by strongly held values, that life is meaningful, and an uncanny ability to improvise.

5.4 Hardiness

Relevance of Hardiness Assessment and Training to the Military Context


Hardiness is a pattern of attitudes and skills that provides the courage and strategies to turn stressful circumstances from potential disasters into growth opportunities instead. As such, hardiness is particularly relevant to inherently stressful settings, such as military service. First, theory and research on hardiness assessment and training is summarized in a manner than highlights relevance to stressful situations. Discussed then are likely applications of hardiness assessment and training in particular military contexts, such as selection and preparation for Special Forces or other extreme assignments, and treatment of combat-related physical and mental disabilities.
Social and Organizational Influences on Psychological Hardiness: How Leaders Can Increase Stress Resilience


Today’s security forces must operate in environments of increasing complexity, uncertainty and change, a fact that has led to increased stress levels along with the challenge to adapt. For many people, such stressful conditions can lead to a range of health problems and performance decrements. But others remain healthy, showing resilience under stress. What accounts for such resilience? This paper focuses on psychological hardiness, a set of mental qualities that has been found to distinguish resilient from non-resilient people. Those high in psychological hardiness show greater commitment – the abiding sense that life is meaningful and worth living; control – the belief that one chooses and can influence his/her own future; and challenge – a perspective on change in life as something that is interesting and exciting. This paper begins with a brief discussion of the major stress sources in modern military and security operations, and the broad range of factors that can influence resilience in organizations. Next the concept of psychological hardiness is described, including theoretical background, representative research findings, and biological underpinnings. Finally, some strategies are suggested for how psychological hardiness can be built up in organizations, primarily through leader actions and policies. By focusing more attention on increasing psychological hardiness, security organizations can realize enhanced health and performance in the workforce, while also preventing many stress-related problems.

Stressful Life Events, Personality, and Health: An Inquiry Into Hardiness


Personality was studied as a conditioner of the effects of stressful life events on illness onset. Two groups of middle and upper level executives had comparably high degrees of stressful life events in the previous 3 years, as measured by the Holmes and Rahe Schedule of Recent Life Events. One group (n = 86) suffered high stress without falling ill, whereas the other (n = 75) reported becoming sick after their encounter with stressful life events. Illness was measured by the Wyler, Masuda, and Holmes Seriousness of Illness Survey. Discriminant function analysis, run on half of the subjects in each group and cross-validated on the remaining cases, supported the prediction that high stress/low illness executives show, by comparison with high stress/high illness executives, more hardiness, that is, have a stronger commitment to self, an attitude of vigorousness toward the environment, a sense of meaningfulness, and an internal locus of control.
The Courage and Strategies of Hardiness as Helpful in Growing Despite Major, Disruptive Stresses


The attitudes of hardiness are the 3Cs of challenge, commitment, and control, which together constitute the courage needed to be resilient and grow through stresses. If you are strong in challenge, you see stress as a normal aspect of living and as an opportunity to grow through what you learn from disruptions and failures, rather than being naively insistent on easy comfort and security. If you are high in commitment, you believe that when stresses mount, it is important, so as to enhance meaning, to stay involved with the events and people in your life, rather than sink into alienation. If you are strong in control, you believe that, no matter how bad things get, it is important to keep trying to influence ensuing outcomes, rather than sink into passivity, powerlessness, and reverence for the past. These attitudes of hardiness have been shown to constitute the existential courage to recognize (rather than deny) stresses and to be motivated to try to turn them to one’s advantage. Building on these courageous attitudes, hardiness also involves strategies for coping, social interaction, and self-care. As these strategies involve hard, even exhausting work, the courage inherent in the hardy attitudes is a necessary motivation. Hardy coping involves problem solving by putting the stressful circumstance in perspective (so that it is more tolerable), deepening one’s understanding of it (by analyzing it in detail), and taking actions that can be decisive in turning it into an advantage (rather than denying and avoiding or exaggerating and striking out).

5.5 Maintain a Positive Outlook

A Harvard Lecturer Reveals 5 Science-Backed Secrets to Being Happier


In the United States, rates of depression are ten times higher today than they were in the 1960s, and the average age for the onset of depression is fourteen and a half compared to twenty-nine and a half in 1960. Happiness is made up of five primary components: 1) You need pleasure and meaning. Feeling good is important but we also need a purpose. To live a meaningful life, we must have self-generated purpose that possess personal significance rather than one that is dictated by society’s standards and expectations; 2) May your life. Note where your time goes and ask if its making you happy. Then do more of the good stuff; 3) “No pain, no gain” is a myth. We’re happiest doing things where we enjoy the process, not just the results; 4) What would you do if no one would judge you? This question can point you in the right direction; 5) Doing beats knowing. Use rituals. Don’t just read these ideas. Make them into habits. Exercise, spend time with friends, express gratitude, and meditate. Be compassionate with yourself. Life is rich and varied. Give yourself permission to be human.
A Neural Link Between Generosity and Happiness


Generous behavior is known to increase happiness, which could thereby motivate generosity. In this study, we use functional magnetic resonance imaging and a public pledge for future generosity to investigate the brain mechanisms that link generous behavior with increases in happiness. Participants promised to spend money over the next 4 weeks either on others (experimental group) or on themselves (control group). Here, we report that, compared to controls, participants in the experimental group make more generous choices in an independent decision-making task and show stronger increases in self-reported happiness. Generous decisions engage the temporo-parietal junction (TPJ) in the experimental more than in the control group and differentially modulate the connectivity between TPJ and ventral striatum. Importantly, striatal activity during generous decisions is directly related to changes in happiness. These results demonstrate that top–down control of striatal activity plays a fundamental role in linking commitment-induced generosity with happiness.

Counting Blessings Versus Burdens: An Experimental Investigation of Gratitude and Subjective Well-Being in Daily Life


The effect of a grateful outlook on psychological and physical well-being was examined. In Studies 1 and 2, participants were randomly assigned to 1 of 3 experimental conditions (hassles, gratitude listing, and either neutral life events or social comparison); they then kept weekly (Study 1) or daily (Study 2) records of their moods, coping behaviors, health behaviors, physical symptoms, and overall life appraisals. In a 3rd study, persons with neuromuscular disease were randomly assigned to either the gratitude condition or to a control condition. The gratitude-outlook groups exhibited heightened well-being across several, though not all, of the outcome measures across the 3 studies, relative to the comparison groups. The effect on positive affect appeared to be the most robust finding. Results suggest that a conscious focus on blessings may have emotional and interpersonal benefits.
Feeling Thanks and Saying Thanks: A Randomized Controlled Trial Examining If and How Socially Oriented Gratitude Journals Work


Objective: This study examined the effect of a reflective interpersonal gratitude journal, a reflective behavioral interpersonal gratitude journal and an active control journal, on primary qualities of well-being and depression. Method: Participants (*n* = 192; 67.2% female) completed this 3-month longitudinal randomized controlled design. Results: Participants in the reflective-behavioral condition experienced the greatest improvements in affect balance and reductions in depression at immediate posttest. Both gratitude interventions improved affect balance at 1 month, compared to the control. Changes in affect balance for those in the reflective-behavioral condition were mediated by the rate at which people expressed gratitude in their existing relationships. This effect was moderated by participant’s baseline depressive status. Conclusion: Expressing felt gratitude to others appears to be a crucial step in deriving benefits, and these benefits may not be limited to the emotionally healthy. Given the applied popularity of gratitude interventions, understanding not only *if* but also *how* they work is essential.

Gratitude and Depressive Symptoms: The Role of Positive Reframing and Positive Emotions


Eight studies (*N* = 2,973) tested the theory that gratitude is related to fewer depressive symptoms through positive reframing and positive emotion. Study 1 found a direct path between gratitude and depressive symptoms. Studies 2-5 demonstrated that positive reframing mediated the relationship between gratitude and depressive symptoms. Studies 6-7 showed that positive emotion mediated the relationship between gratitude and depressive symptoms. Study 8 found that positive reframing and positive emotion simultaneously mediated the relationship between gratitude and depressive symptoms. In sum, these eight studies demonstrate that gratitude is related to fewer depressive symptoms, with positive reframing and positive emotion serving as mechanisms that account for this relationship.

Humor Use Moderates the Relation of Stressful Life Events with Psychological Distress


Three studies examined humor and adjustment to stressful events. In Study 1, patients with fibromyalgia syndrome (*N* = 22) reported on mental and physical adjustment, social interaction,
and reappraisal of their illness. Dispositional humor was associated with reduced distress and fewer physical symptoms. Study 2 \((N = 109)\) examined undergraduates’ reports of stressful events. Dispositional, self-enhancing, affiliative, and self-defeating humor showed direct effects on distress, which were mediated by social interaction and reappraisal. Moreover, dispositional and aggressive humor showed stress-buffering effects. Study 3 \((N = 105)\) examined undergraduates’ adjustment to the September 11, 2001, attacks at 1 and 3 months postattack. At T1, affiliative humor showed a stress-buffering effect on distress. Social interaction mediated the relation of self-enhancing humor with reduced T1 distress, and mediated relations of aggressive and self-defeating humor with greater distress. Relations of T1 dispositional and self-defeating humor to changes in T2 distress were mediated by reappraisal.

**Neural Correlates of Gratitude**


Gratitude is an important aspect of human sociality, and is valued by religions and moral philosophies. It has been established that gratitude leads to benefits for both mental health and interpersonal relationships. It is thus important to elucidate the neurobiological correlates of gratitude, which are only now beginning to be investigated. To this end, we conducted an experiment during which we induced gratitude in participants while they underwent functional magnetic resonance imaging. We hypothesized that gratitude ratings would correlate with activity in brain regions associated with moral cognition, value judgment and theory of mind. The stimuli used to elicit gratitude were drawn from stories of survivors of the Holocaust, as many survivors report being sheltered by strangers or receiving lifesaving food and clothing, and having strong feelings of gratitude for such gifts. The participants were asked to place themselves in the context of the Holocaust and imagine what their own experience would feel like if they received such gifts. For each gift, they rated how grateful they felt. The results revealed that ratings of gratitude correlated with brain activity in the anterior cingulate cortex and medial prefrontal cortex, in support of our hypotheses. The results provide a window into the brain circuitry for moral cognition and positive emotion that accompanies the experience of benefitting from the goodwill of others.

**Optimism is the Enemy of Action**


This article is an interview with Dr. Gabrielle Oettigan, the author of “Rethinking Positive Thinking.” This article explains the value of being realistically optimistic. In order to achieve goals, it’s not enough to simply imagine what you want, you must also consider the obstacles that could stop you from reaching them. Positive thinking and an understanding of the obstacles ahead is the key to behavioral change. Dreaming about goals without obstacles can reduce a person’s motivation to take the steps needed to achieve those goals.
Positive Psychology Coaching Manual for Coach


The goal of this manual is to bridge the gap between science and practice, by using Positive Psychology interventions to enhance wellbeing. Positive psychology has brought us a diverse set of scientifically tested exercises and positive interventions; interventions that have been found to promote wellbeing by fostering healthy self-regulation. Instead of primarily focusing on the question: “what is the problem of my client and how can this problem be solved?” the question is: “what does a valuable life look like in the eyes of my client and how can this be achieved?” Although both questions may seem similar at first glance, they are not. Repairing weakness is not the same as building strengths. Moving closer to a desired direction is not the same as preventing oneself to move in an undesired direction. Subjective wellbeing is more than the absence of mental illness or problems. Getting rid of fear, anger, and depression will not automatically fill you with peace, love, and joy. Getting rid of weaknesses will not automatically maximize your strengths. The focus of this manual is not on what is wrong with the client and on repairing what is worst, but first and foremost on strengths, what is right with him and on creating what is best. The goal of the manual is to help your client to move closer to a desired outcome, to desired regulatory goal.

Psychological Resilience and Positive Emotional Granularity: Examining the Benefits of Positive Emotions on Coping and Health


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.
The Broaden-And-Build Theory of Positive Emotions


The broaden-and-build theory describes the form and function of a subset of positive emotions, including joy, interest, contentment and love. A key proposition is that these positive emotions broaden an individual’s momentary thought–action repertoire: joy sparks the urge to play, interest sparks the urge to explore, contentment sparks the urge to savor and integrate, and love sparks a recurring cycle of each of these urges within safe, close relationships. The broadened mindsets arising from these positive emotions are contrasted to the narrowed mindsets sparked by many negative emotions (i.e. specific action tendencies, such as attack or flee). A second key proposition concerns the consequences of these broadened mindsets: by broadening an individual’s momentary thought–action repertoire—whether through play, exploration or similar activities—positive emotions promote discovery of novel and creative actions, ideas and social bonds, which in turn build that individual’s personal resources; ranging from physical and intellectual resources, to social and psychological resources. Importantly, these resources function as reserves that can be drawn on later to improve the odds of successful coping and survival. This chapter reviews the latest empirical evidence supporting the broaden-and-build theory and draws out implications the theory holds for optimizing health and well-being.

Why Gratitude Enhances Well-Being: What We Know, What We Need To Know


Gratitude is an acknowledgment that we have received something of value from others. It arises from a posture of openness to others, where we are able to gladly recognize their benevolence. In the first part of this chapter, we review research on gratitude and positive human functioning. First, we briefly consider the research on gratitude and well-being. After a consideration of this evidence, we explore the mechanisms by which gratitude enhances wellbeing. We consider several explanations and evaluate the empirical evidence for each. In the latter part of the chapter, we establish an agenda for the future by considering some ways in which the scientific field of gratitude can be advanced.
5.6 Meaning & Purpose

Association of Religious Service Attendance with Mortality Among Women


Importance: Studies on the association between attendance at religious services and mortality often have been limited by inadequate methods for reverse causation, inability to assess effects over time, and limited information on mediators and cause-specific mortality. Objective: To evaluate associations between attendance at religious services and subsequent mortality in women. Design, Setting, and Participants: Attendance at religious services was assessed from the first questionnaire in 1992 through June 2012, by a self-reported question asked of 74,534 women in the Nurses’ Health Study who were free of cardiovascular disease and cancer at baseline. Data analysis was conducted from return of the 1996 questionnaire through June 2012. Main Outcomes and Measures: Cox proportional hazards regression model and marginal structural models with time-varying covariates were used to examine the association of attendance at religious services with all-cause and cause-specific mortality. We adjusted for a wide range of demographic covariates, lifestyle factors, and medical history measured repeatedly during the follow-up, and performed sensitivity analyses to examine the influence of potential unmeasured and residual confounding. Results: Among the 74,534 women participants, there were 13,537 deaths, including 2,721 owing to cardiovascular deaths and 4,479 owing to cancer deaths. After multivariable adjustment for major lifestyle factors, risk factors, and attendance at religious services in 1992, attending a religious service more than once per week was associated with 33% lower all-cause mortality compared with women who had never attended religious services (hazard ratio, 0.67; 95% CI, 0.62-0.71; *P* < .001 for trend). Comparing women who attended religious services more than once per week with those who never attend, the hazard ratio for cardiovascular mortality was 0.73 (95% CI, 0.62-0.85; *P* < .001 for trend) and for cancer mortality was 0.79 (95% CI, 0.70-0.89; *P* < .001 for trend). Results were robust in sensitivity analysis. Depressive symptoms, smoking, social support, and optimism were potentially important mediators, although the overall proportion of the association between attendance at religious services and mortality was moderate (e.g., social support explained 23% of the effect [*P* = .003], depressive symptoms explained 11% [*P* < .001], smoking explained 22% [*P* < .001], and optimism explained 9% [*P* < .001]). Conclusions and Relevance: Frequent attendance at religious services was associated with significantly lower risk of all-cause, cardiovascular, and cancer mortality among women. Religion and spirituality may be an underappreciated resource that physicians could explore with their patients, as appropriate.
Benevolent Images of God, Gratitude, and Physical Health Status


This study has two goals. The first is to assess whether a benevolent image of God is associated with better physical health. The second goal is to examine the aspects of congregational life that is associated with a benevolent image of God. Data from a new nationwide survey (N = 1774) are used to test the following core hypotheses: (1) people who attend worship services more often and individuals who receive more spiritual support from fellow church members (i.e., informal assistance that is intended to increase the religious beliefs and behaviors of the recipient) will have more benevolent images of God, (2) individuals who believe that God is benevolent will feel more grateful to God, (3) study participants who are more grateful to God will be more hopeful about the future, and (4) greater hope will be associated with better health. The data provide support for each of these relationships.

Character Strengths and Deep Connections Following Hurricanes Katrina and Rita: Spiritual and Secular Pathways to Resistance Among Volunteers


This study investigated a conceptual model with two pathways, altruism and perceived spiritual support, leading to resilience among student volunteers following Hurricanes Katrina and Rita (H-KR). Both strengths share the sense of deep connections. Parallel pathways with the two major constructs were estimated using structural equation modeling, adjusting for demographics and peritraumatic emotional reactions. The two indicators may have served as a protective mechanism for all volunteers despite differing racial/cultural backgrounds. The potential protection of these strength factors was mediated through optimism and hope. Resilience among minority volunteers was associated more with faith-related strengths, as indicated in the relevant pathway that also contributed to their altruistic actions. The resilience of white volunteers, however, was directly associated with altruism, a strength that does depend heavily on religious beliefs. Further, the modification index suggested a direct path from race to depression.
Forgiveness Increases Meaning in Life


Close relationships are a source of meaning in life. Interpersonal offenses can disrupt one’s sense of meaning within close relationships. To restore a sense of meaning, people may employ relational repair strategies such as forgiveness. We hypothesized that forgiveness is a meaning-making mechanism because it helps repair relationships, thus restoring the positive effects of relationships on meaning. Study 1 (N = 491) revealed that dispositional forgiveness and the degree of forgiveness following an offense were positively related to meaning in life. Study 2 (N = 210), a 6-month longitudinal study of romantic couples, revealed that participants who regularly forgave their partner reported increased meaning in life over time. In addition, forgiveness helped recover lost meaning among those participants reporting more frequent partner offenses. These results provide initial evidence that forgiveness recovers a sense of meaning in life after interpersonal offenses.

Greek Christian Orthodox Ecclesiastical Lifestyle: Could It Become a Pattern of Health-Related Behavior?


Background: Although past research has globally supported the salutary impact of religion on health and health-related behaviors, it has not extensively examined the impact of the Christian Orthodox Church’s way of living on people's health and health-related behavior. Methods: Semi-structured personal interviews were used to investigate a stratified sample of 20- to 65-yearold individuals in the greater Athens area. Constructs were compared to single items and indices, which varied across data sets. Results: Multiple-regression analysis specify that persons adopting the Christian Orthodox Church’s lifestyle were more likely to behave in ways that enhance their health (e.g., relaxation, life satisfaction, healthful nutrition, personal hygiene, and physical activity), after controlling for a set of socio-demographic factors and their current health status. Conclusion: These results suggest that the Christian Orthodox Church’s lifestyle constitutes a pattern of health-related behavior.
Parent Spirituality, Grief, and Mental Health at 1 and 3 Months After Their Infant’s/Child’s Death in an Intensive Care Unit


Problem: The death of an infant/child is one of the most devastating experiences for parents and immediately throws them into crisis. Research on the use of spiritual/religious coping strategies is limited, especially with Black and Hispanic parents after a neonatal (NICU) or pediatric intensive care unit (PICU) death. Purpose: The purpose of this longitudinal study was to test the relationships between spiritual/religious coping strategies and grief, mental health (depression and post-traumatic stress disorder) and personal growth for mothers and fathers at 1 (T1) and 3 (T2) months after the infant’s/child’s death in the NICU/PICU, with and without control for race/ethnicity and religion. Results: Bereaved parents’ greater use of spiritual activities was associated with lower symptoms of grief, mental health (depression and post-traumatic stress), but not post-traumatic stress in fathers. Use of religious activities was significantly related to greater personal growth for mothers, but not fathers. Conclusion: Spiritual strategies and activities helped parents cope with their grief and helped bereaved mothers maintain their mental health and experience personal growth.

Pathways to Meaning-Making through Leisure-Like Pursuits in Global Contexts


This paper incorporates international and multicultural perspectives on meaning-making through leisure-like pursuits, by acknowledging voices of non-western people including Asians, Middle-Easterners, Indigenous persons, Africans, and South Americans, in addition to some dominant Euro-North American perspectives. Based on a literature review and content analysis and synthesis, major pathways linking leisure-like pursuits to meaning-making are identified, specifically, their roles in facilitating: (a) positive emotions and well-being; (b) positive identities, self-esteem, and spirituality; (c) social and cultural connections and a harmony; (d) human strengths and resilience; and (e) learning and human development across the life-span. More generally, however, in people's quest for a meaningful life, the processes of meaning-making through leisure-like engagements involve both remedying the bad and enhancing the good. Achieving a more balanced understanding of leisure-like engagements and meaning-making as a global phenomenon is implied and advocated. **KEYWORDS**: Culture, globalization, international, leisure, meaning.
Religion as a Meaning-Making Framework in Coping with Life Stress


This article explores how religion, as a meaning system, influences coping with adversity. First, a model emphasizing the role of meaning making in coping is presented. Next, religion as a meaning system is defined, and theory and research on the role of religion in the coping process are summarized. Results from the author’s study of 169 bereaved college students are then presented to illustrate some of the pathways through which religious meaning can influence the coping process in making meaning following loss. Findings indicate that associations between religion and adjustment vary across time since loss, and that these associations are mediated by meaning-making coping. Finally, implications for individual and societal well-being and suggestions for future research are discussed.

Religious Coping and Psychological Adjustment to Stress: A Meta-Analysis


A growing body of literature suggests that people often turn to religion when coping with stressful events. However, studies on the efficacy of religious coping for people dealing with stressful situations have yielded mixed results. No published studies to date have attempted to quantitatively synthesize the research on religious coping and psychological adjustment to stress. The purpose of the current study was to synthesize the research on situation-specific religious coping methods and quantitatively determine their efficacy for people dealing with stressful situations. A meta-analysis of 49 relevant studies with a total of 105 effect sizes was conducted in order to quantitatively examine the relationship between religious coping and psychological adjustment to stress. Four types of relationships were investigated: positive religious coping with positive psychological adjustment, positive religious coping with negative psychological adjustment, negative religious coping with positive psychological adjustment, and negative religious coping with negative psychological adjustment. The results of the study generally supported the hypotheses that positive and negative forms of religious coping are related to positive and negative psychological adjustment to stress, respectively. Implications of the findings and their limitations are discussed.

Some Key Differences between a Happy Life and a Meaningful Life


Being happy and finding life meaningful overlap, but there are important differences. A large survey revealed multiple differing predictors of happiness (controlling for meaning) and meaningfulness (controlling for happiness). Satisfying one’s needs and wants increased
happiness but was largely irrelevant to meaningfulness. Happiness was largely present-oriented, whereas meaningfulness involves integrating past, present, and future. For example, thinking about future and past was associated with high meaningfulness but low happiness. Happiness was linked to being a taker rather than a giver, whereas meaningfulness went with being a giver rather than a taker. Higher levels of worry, stress, and anxiety were linked to higher meaningfulness but lower happiness. Concerns with personal identity and expressing the self-contributed to meaning but not happiness. We offer brief composite sketches of the unhappy but meaningful life and of the happy but meaningless life.

Spirituality and Personality: Understanding their Relationship to Health Resilience


A growing body of research suggests there are important relationships among spirituality, certain personality traits, and health (organismic) resilience. In the present study, 83 college students from two southeastern universities completed a demographic questionnaire, the NEO Five Factor Inventory, and the Resilience Questionnaire. The Organismic resilience and Relationship with something greater subscales of the Resilience Questionnaire were used for analyses. Health resilience was associated with four of the Big Five personality variables and the spirituality score. Health resilience was positively correlated with ratings of extraversion, agreeableness, conscientiousness, and spirituality and negatively correlated with neuroticism. Forty-three percent of the variance of the health resilience score was accounted for by two of the predictor variables: spirituality and neuroticism. These findings are consistent with the literature and provide further support for the idea that spirituality and health protective personality characteristics are related to and may promote better health resilience.

The Power of Intention

Hanson, R. (n.d.). The power of intention. *The Rick Hanson Blog*.

This essay was posted on the rickhanson.net blog exploring how to establish powerful intentions and sustain the commitment to see them through. Visualization of future outcomes is a useful tool for establishing intentions and goals. Finding purpose and defining priorities gives direction to intentions. Making specific commitments related to intentions gives people the power to turn their goals and dreams into reality.
There’s More to Life than Being Happy


“There’s more to life than being happy,” Frankl wrote in *Man’s Search for Meaning*, the last of the human freedoms – to choose one’s attitude in any given set of circumstances, to choose one’s own way.” The uniqueness and singleness which distinguishes each individual and gives a meaning to his existence has a bearing on creative work as much as it does on human love. When the impossibility of replacing a person is realized, it allows the responsibility which a man has for his existence and its continuance to appear in all its magnitude. Happiness cannot be pursued; it must ensue. Research has shown that having purpose and meaning in life increases overall well-being and life satisfaction, improves mental and physical health, enhances resiliency, enhances self-esteem, and decreases the chances of depression. Leading a happy life, the psychologists found, is associated with being a ‘taker’ while leading a meaningful life corresponds with being a ‘giver.’ Because individuals with meaning have invested themselves in something bigger than themselves, they also worry more and have higher levels of stress and anxiety in their lives than happy people. Meaning is not only about transcending the self, but also about transcending the present moment. While happiness is an emotion felt in the here and now, it ultimately fades away, just as all emotions do; positive affect and feelings of pleasure are fleeting.

Trajectories of Spiritual Change Among Expatriate Humanitarian Aid Workers: A Prospective Longitudinal Study


Expatriate humanitarian aid workers are often exposed to traumatic events and human suffering in the context of their deployments. Internal resources, such as having recourse to a transcendent spiritual framework, may play an important part in creating a meaningful perspective on the work and developing coping strategies to overcome challenging experiences. Aid workers from agencies based in North America and Europe participated in a longitudinal study of stress and mental health between 2005 and 2009 (Lopes Cardozo et al., 2012). Participants completed assessments of spiritual transcendence, trauma exposure, psychiatric distress, and posttraumatic life changes at pre-deployment (*n* =212), post-deployment (*n* =170), and a 3- to 6-month follow-up assessment (*n* =154). Latent class growth analysis indicated 3 distinct trajectories of spiritual changes across the sample: (1) a group with high spiritual transcendence at pre-deployment with small, but significant, decreases over time; (2) a group with moderate and stable spiritual transcendence scores; and (3) a group with low and slightly decreasing spiritual transcendence scores over the study period. Participants who reported a religious affiliation were more likely to be in the high spiritual transcendence group, and different trajectories were not associated with likelihood of psychiatric distress at post-deployment or follow-up. However, those reporting higher spiritual transcendence were more likely to report positive life changes following their
deployments. Findings suggest that spiritual transcendence was relatively stable in this sample, and that aid workers with greater spiritual transcendence may be more oriented toward personal growth after trauma exposure in their work.

### 5.7 Personal Resilience Scales

**Overview: Connor-Davidson Resilience Scale (CD-RISC)**


This report presented psychometric data establishing validity and reliability of the scale (known as the Connor-Davidson Scale or CD-RISC), as well as briefly describing each of the 25 items, and giving general scoring directions. The CD-RISC literature continues to grow: the scale has now been translated into many different languages and studied in a variety of populations, including large community samples, survivors of various traumas, Alzheimer’s caregivers, adolescents, elders, patients in treatment for PTSD, members of different ethnic groups and cultures, and selected professional or athletic groups (e.g. university students, nurses, social workers, physicians, military medical personnel, medical students, missionaries, cricketers). The CD-RISC has been included in studies of functional neuroimaging, genotyping, and treatment outcome. Psychometric properties of the RISC hold up well, although its factor structure and mean score varies with setting.

**A Methodological Review of Resilience Measurement Scales**


Background: The evaluation of interventions and policies designed to promote resilience, and research to understand the determinants and associations, require reliable and valid measures to ensure data quality. This paper systematically reviews the psychometric rigor of resilience measurement scales developed for use in general and clinical populations. Methods: Eight electronic abstract databases and the internet were searched and reference lists of all identified papers were hand searched. The focus was to identify peer reviewed journal articles where resilience was a key focus and/or is assessed. Two authors independently extracted data and performed a quality assessment of the scale psychometric properties. Results: Nineteen resilience measures were reviewed; four of these were refinements of the original measure. All the measures had some missing information regarding the psychometric properties. Overall, the Connor-Davidson Resilience Scale, the Resilience Scale for Adults and the Brief Resilience Scale received the best psychometric ratings. The conceptual and theoretical adequacy of a number of the scales was questionable. Conclusion: We found no current ‘gold standard’ amongst 15 measures of resilience. A number of the scales are in the early stages of development, and all require further validation work. Given increasing interest in resilience from
major international funders, key policy makers and practice, researchers are urged to report relevant validation statistics when using the measures.

A New Rating Scale for Adult Resilience: What are the Central Protective Resources Behind Healthy Adjustment?


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.

Development of a New Resilience Scale: The Connor-Davidson Resilience Scale (CD-RISC)


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 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.

Examination of a Theoretical Model of Psychological Resilience in Older Age


Objective: This article integrates a number of theoretical perspectives and examines the concept of psychological resilience in older age. Drawing on the literature it is hypothesized that an overarching construct – resilience – accounts for the functioning of a number of psychological resources (self-esteem, personal competence and control). Method: The factorial validity of the resources as indicators of resilience is tested using confirmatory factor analysis. The analyses focus on previously unexplored survey data drawn from a representative sample of people aged between 50 and 90 in England, Wales and Scotland (N=1847). Results: The results find a common factor (a higher-order model) provides the best explanation of the relationships between the resources, demonstrating an important first account for developing further work on this concept. Conclusion: Exploring what might form the basis of resilience from a psychological perspective enables a deeper understanding of why some individuals can remain positive in difficult circumstances, particularly some of the challenges of ageing.

The Brief Resilience Scale: Assessing the Ability to Bounce Back


Background: While resilience has been defined as resistance to illness, adaptation, and thriving, the ability to bounce back or recover from stress is closest to its original meaning. Previous resilience measures assess resources that may promote resilience rather than recovery, resistance, adaptation, or thriving. Purpose: To test a new brief resilience scale. Method: The brief resilience scale (BRS) was created to assess the ability to bounce back or recover from stress. Its psychometric characteristics were examined in four samples, including two student samples and samples with cardiac and chronic pain patients. Results: The BRS was reliable and measured as a unitary construct. It was predictably related to personal characteristics, social relations, coping, and health in all samples. It was negatively related to anxiety, depression, negative affect, and physical symptoms when other resilience measures and optimism, social support, and Type D personality (high negative affect and high social inhibition) were controlled. There were large differences in BRS scores between cardiac patients with and without Type D and women with and without fibromyalgia. Conclusion: The BRS is a reliable means of assessing resilience as the
ability to bounce back or recover from stress and may provide unique and important information about people coping with health-related stressors.

5.8 Stress Management

A Randomized Controlled Trial of a Self-Guided, Multimedia, Stress Management, and Resilience Training Program


Background: Stress is a common and costly behavioral health issue. Technology-based behavioral health programs (e.g., computer or web-based programs) are effective for treating anxiety or depression. These programs increase availability of evidence-based interventions to individuals who are not able or willing to receive such in-person treatments. Stress management training has empirical support, but little data exists on its efficacy with stressed but healthy individuals, and there are no prior studies employing a self-guided, multimedia intervention. We conducted a randomized controlled trial of a self-guided, multimedia stress management and resilience training program (SMART-OP) with a stressed but healthy sample. Methods: Participants \((N = 66)\) were randomized to SMART-OP or an attention control (AC) group that received marketed videos and published material on stress management. Participants were evaluated on self-report measures and Trier Social Stress Test (TSST) performance. Analyses were based on study completers \((N = 59)\). Results: SMART-OP group reported significantly less stress, more perceived control over stress, and rated SMART-OP as significantly more useful than AC. During the TSST, the data suggests the SMART-OP group showed greater within-task \(\alpha\)-amylase recovery at post-assessment. Conclusions: SMART-OP is highly usable and is a more effective and useful stress management training program than an educational comparison.

Five Myths about Stress


This article was published by The Washington Post and debunks five common misconceptions about stress. There is significant difference between treating the causes of stress versus the sources of stress. Stress doesn’t always make people more vulnerable to illness. The majority of people exposed to trauma do not develop PTSD. The difference between men and women’s reactions to stress are not necessarily due to hormones. It should be noted that this article is not supported by other articles/research.
Stress Alters Personal Moral Decision Making


While early studies of moral decision making highlighted the role of rational, conscious executive processes involving frontal lobe activation more recent work has suggested that emotions and gut reactions have a key part to play in moral reasoning. Given that stress can activate many of the same brain regions that are important for and connected to brain centers involved in emotional processing we sought to evaluate if stress could influence moral decision making. Sixty-five undergraduate volunteers were randomly assigned to control \( (n = 33) \) and experimental groups \( (n = 32) \). The latter underwent the Trier Social Stress Test (TSST) and induction of stress was assessed by measurement of salivary cortisol levels. Subjects were then required to provide a response to thirty moral dilemmas via a computer interface that recorded both their decision and reaction time. Three types of dilemmas were used: non-moral, impersonal moral and personal moral. Using a binary logistic model there were no significant predictors of utilitarian response in non-moral and impersonal moral dilemmas. However the stressed group and females were found to predict utilitarian responses to personal moral dilemmas. When comparing percentage utilitarian responses there were no significant differences noted for the non-moral and impersonal moral dilemmas but the stressed group showed significantly less utilitarian responses compared to control subjects. The stress response was significantly negatively correlated with utilitarian responses. Females also showed significantly less utilitarian responses than males. We conclude that activation of the stress response predisposed participants to less utilitarian responses when faced with high conflict personal moral dilemmas and suggest that this offers further support for dual process theory of moral judgment. We also conclude that females tend to make less utilitarian personal moral decisions compared to males, providing further evidence that there are gender differences in moral reasoning.

When Daily Stress Gets in the Way of Life


This article was published by the New York Times explaining the effects of persistent stress and gives solutions for lowering daily stress levels. Having high levels of stress every day can make it harder to deal with serious problems when they arise. To deal with everyday anxiety: focus on being present in the moment, ask friends for advice, and take a break from the stressful situation.
5.9 Social Support

Close Relationships, Inflammation, and Health


Different aspects of personal relationships including social integration, social support, and social conflict have been related to inflammation. This article summarizes evidence linking the quality and quantity of relationships with gene expression, intracellular signaling mechanisms, and inflammatory biomarkers, and highlights the biological and psychological pathways through which close relationships impact inflammatory responses. Relationship conflict and lower social support can effectively modulate proinflammatory cytokine secretion both directly (via CNS/neural/endocrine/immune biobehavioral pathways), and indirectly, by promoting depression, emotional stress responses, and detrimental health behaviors. Accordingly, thorough assessments of health behaviors and attention to key methodological issues are necessary to identify the contributions of relationships to inflammation, and thus we highlight procedural issues to be considered in the design of studies. Despite some notable methodological challenges, the evidence suggests that learning more about how close relationships influence inflammation will provide important new insights into the ways that relationships impact health.

Everyday Prosociality in the Workplace: The Reinforcing Benefits of Giving, Getting, and Glimpsing


A functional analysis of prosociality considers how predispositions for prosocial behavior prompt, reinforce, and propagate kind behaviors in the real world. To examine the effects of practicing, receiving, and observing everyday prosociality—as well as the mechanisms underlying these effects—we randomly assigned employees in a Spanish corporate workplace (N = 111) to be Givers, Receivers, and Controls. Givers practiced 5 acts of kindness for a personalized list of Receivers over 4 weeks. We found that Givers and Receivers mutually benefited in well-being in both the short-term (e.g., on weekly measures of competence and autonomy) and the long-term (e.g., Receivers became happier after 2 months, and Givers became less depressed and more satisfied with their lives and jobs). In addition, Givers’ prosocial acts inspired others to act: Receivers paid their acts of kindness forward with 278% more prosocial behaviors than Controls. Our results reveal that practicing everyday prosociality is both emotionally reinforcing and contagious (inspiring kindness and generating hedonic rewards in others) and that receiving everyday prosociality is an unequivocally positive experience (which may further reinforce Givers’ actions). Prosociality’s benefits shed light on its surprising ubiquity in humanity compared with our closest evolutionary cousins.
Prosocial Behavior Mitigates the Negative Effects of Stress in Everyday Life


Recent theories of stress reactivity posit that, when stressed, individuals tend to seek out opportunities to affiliate with and nurture others to prevent or mitigate the negative effects of stress. However, few studies have tested empirically the role of prosocial behavior in reducing negative emotional responses to stress. The current analyses used daily diary data to investigate whether engaging in prosocial behavior buffered the negative effects of naturally occurring stressors on emotional well-being. Results showed that on a given day, prosocial behavior moderated the effects of stress on positive affect, negative affect, and overall mental health. Findings suggest that affiliative behavior may be an important component of coping with stress and indicate that engaging in prosocial behavior might be an effective strategy for reducing the impact of stress on emotional functioning.

Psychometric Properties and Confirmatory Factor Analysis of the UCLA Loneliness Scale


This study investigated the psychometric properties of the UCLA Loneliness Scale. Test-retest and internal consistency reliability were found to be highly acceptable, and support for the concurrent related validity of the scale was also indicated. Confirmatory factor analysis provided support for the unidimensionality of the scale. Evidence was found that the scale is not multivariate normal and in fact appears to be bimodal. Implications point to the need to reconsider the nature of the loneliness construct and to develop conceptually or theoretically based models for testing.

Relation of Social Integration to Inflammatory Marker Concentrations in Men and Women 70 to 79 Years


The lack of social integration has predicted coronary heart disease morbidity and mortality in prospective observational studies; however, the biologic mechanisms by which this may occur are not well understood. The objective of this study was to determine whether social integration is associated with inflammatory risk factors for coronary heart disease, specifically C-reactive protein (CRP) and interleukin-6. The study participants (aged 70 to 79 years; 380 men and 425 women) were from the MacArthur Successful Aging Study, a longitudinal study of 3
community-based cohorts in the United States of older adults with relatively high physical and cognitive functioning at baseline (1988 to 1989). The plasma concentrations of interleukin-6 and CRP were assessed using a high-sensitivity enzyme-linked immunosorbent assay. Cross-sectional logistic regression analyses were performed. Multivariate adjusted analyses indicated that social integration was significantly inversely associated with CRP concentration in men after adjusting for age, race/ethnicity, smoking, alcohol consumption, physical activity, body mass index, cardiovascular disease, other major or chronic conditions, physical functioning, socioeconomic status, and depression (odds ratio 2.23, 95% confidence interval 1.05 to 4.76, for elevated CRP [>3.19 mg/L] in the least socially integrated quartile vs the most socially integrated quartile). No significant associations were found between social integration and interleukin-6 in men or either inflammatory marker in women. In conclusion, social integration was negatively associated with the plasma CRP concentration in men. These findings suggest a potential biologic mechanism for the observed associations between social integration and coronary heart disease in prospective studies. Differences may exist between women and men in the biologic pathways associated with social integration.

Social Influences on Neuroplasticity: Stress and Intervention to Promote Well-Being


Experiential factors shape the neural circuits underlying social and emotional behavior from the prenatal period to the end of life. These factors include both incidental influences, such as early adversity, and intentional influences that can be produced in humans through specific interventions designed to promote prosocial behavior and well-being. Here we review important extant evidence in animal models and humans. Although the precise mechanisms of plasticity are still not fully understood, moderate to severe stress appears to increase the growth of several sectors of the amygdala, whereas the effects in the hippocampus and prefrontal cortex tend to be opposite. Structural and functional changes in the brain have been observed with cognitive therapy and certain forms of meditation and lead to the suggestion that well-being and other prosocial characteristics might be enhanced through training.

Social Integration and Concentrations of C-Reactive Protein Among US Adults


Purpose: This study tests whether social integration is associated with C-reactive protein (CRP) level, a biologic risk factor for cardiovascular disease. Methods: Using data from 14,818 participants aged > 20 years from the Third National Health and Nutrition Examination Survey (1988 to 1994), we created a social network index using marital status; number of contacts with family, friends, and neighbors; frequency of religious service attendance; and participation in voluntary organizations. Serum CRP concentration was measured by means of latex-enhanced
nephelometry, a low-sensitivity assay, and dichotomized into 3 mg/L or less and greater than 3 mg/L. Results: After adjustment for multiple potential confounders, men aged > 60 years with the fewest ties were more likely to have an elevated CRP concentration than men with the most ties (odds ratio = 1.80; 95% confidence interval, 1.11–2.92). This occurred in a dose-response manner, with each decrease in number of ties associated with an increase in the proportion of men with elevated CRP levels. The association between social networks and CRP level after multivariate adjustment was not significant in women or younger men. Conclusion: In this nationally representative cohort, CRP level was associated with social integration in older men, but not women or younger men. There may be sex- and age-related differences in biologic processes influenced by social integration.

Social Isolation and Adult Mortality: The Role of Chronic Inflammation and Sex Differences


The health and survival benefits of social embeddedness have been widely documented across social species, but the underlying biophysiological mechanisms have not been elucidated in the general population. We assessed the process by which social isolation increases the risk for all-cause and chronic disease mortality through proinflammatory mechanisms. Using the 18-year mortality follow-up data (n = 6,729) from the National Health and Nutrition Examination Survey (1988–2006) on Social Network Index and multiple markers of chronic inflammation, we conducted survival analyses and found evidence that supports the mediation role of chronic inflammation in the link between social isolation and mortality. A high-risk fibrinogen level and cumulative inflammation burden may be particularly important in this link. There are notable sex differences in the mortality effects of social isolation in that they are greater for men and can be attributed in part to their heightened inflammatory responses.

Social Networks and Health


People are interconnected, and so their health is interconnected. In recognition of this social foot, there has been growing conceptual and empirical attention over the past decade to the impact of social networks on health. This article reviews prominent findings from this literature. After drawing a distinction between social network studies and social support studies, we explore current research on dyadic and supradyadic network influences on health, highlighting findings from both egocentric and sociocentric analyses. We then discuss the policy implications of this body of work, as well as future research directions. We conclude that the existence of social networks means that people's health is interdependent and that health and health care can transcend the individual in ways that patients, doctors, policy makers, and researchers should care about.
Social Networks and Inflammatory Markers in the Framingham Heart Study


Lack of social integration predicts coronary heart disease mortality in prospective studies; however, the biological pathways that may be responsible are poorly understood. The specific aims of this study were to examine whether social networks are associated with serum concentrations of the inflammatory markers interleukin-6 (IL-6), C-reactive protein (CRP), soluble intercellular adhesion molecule-1 (sICAM-1) and monocyte chemoattractant protein-1 (MCP-1). Participants in the Framingham Study attending examinations from 1998 to 2001 (n=3267) were eligible for inclusion in the study. Social networks were assessed using the Berkman–Syme Social Network Index (SNI). Concentrations of IL-6, CRP, sICAM-1 and MCP-1 were measured in fasting serum samples. Multivariable linear regression analyses were used to assess the association of social networks with inflammatory markers adjusting for potential confounders including age, smoking, blood pressure, total:HDL cholesterol ratio, body mass index, lipid-lowering and antihypertensive medication, diabetes, cardiovascular disease, depression and socioeconomic status. Results found that the SNI was significantly inversely associated with IL-6 in men (p=0.03) after adjusting for potential confounders. In age-adjusted analyses, social networks also were significantly inversely associated with IL-6 for women (p=0.03) and were marginally to modestly associated with CRP and sICAM-1 for men (p=0.08 and 0.02, respectively), but these associations were not significant in the multivariate analyses. In conclusion, social networks were found to be inversely associated with interleukin-6 levels in men. The possibility that inflammatory markers may be potential mediators between social integration and coronary heart disease merits further investigation.

Social Support, Social Strain, Loneliness, and Well-Being Among Older Adults: An Analysis of the Health and Retirement Study


This study proposed that, among older adults, higher support and lower strain received from each of the four relational sources (spouse/partner, children, family, and friends) were associated with reduced loneliness and improved well-being and that loneliness might mediate the relationship between support/strain and well-being. Structural equation modeling was conducted using a national sample of adults aged 50 years and older (N =7,367) from the Health and Retirement Study. Findings indicated that support from spouse/partner and friends alleviated loneliness, while strain from all the four sources intensified loneliness; higher support and lower strain from various sources directly and indirectly improved well-being, with indirect effects mediated through reduced loneliness. It was concluded that, in later life, various sources of support/strain...
engender distinct effects on loneliness and well-being, and loneliness serves as one of the psychological pathways linking support/strain to well-being.

The Negative Consequences of Maximizing Friendship Selection


Previous studies have shown that the maximizing orientation, reflecting a motivation to select the best option among a given set of choices, is associated with various negative psychological outcomes. In the present studies, we examined whether these relationships extend to friendship selection and how the number of options for friends moderated these effects. Across 5 studies, maximizing in selecting friends was negatively related to life satisfaction, positive affect, and self-esteem, and was positively related to negative affect and regret. In Study 1, a maximizing in selecting friends scale was created, and regret mediated the relationships between maximizing and well-being. In a naturalistic setting in Studies 2a and 2b, the tendency to maximize among those who participated in the fraternity and sorority recruitment process was negatively related to satisfaction with their selection, and positively related to regret and negative affect. In Study 3, daily levels of maximizing were negatively related to daily well-being, and these relationships were mediated by daily regret. In Study 4, we extended the findings to samples from the U.S. and Japan. When participants who tended to maximize were faced with many choices, operationalized as the daily number of friends met (Study 3) and relational mobility (Study 4), the opportunities to regret a decision increased and further diminished well-being. These findings imply that, paradoxically, attempts to maximize when selecting potential friends is detrimental to one’s well-being.

The Social Ecology of Resilience: Addressing Contextual and Cultural Ambiguity of a Nascent Construct


More than two decades after E. E. Werner and R. S. Smith (1982), N. Garmezy (1983), and M. Rutter (1987) published their research on protective mechanisms and processes that are most likely to foster resilience, ambiguity continues regarding how to define and operationalize positive development under adversity. This article argues that, because resilience occurs even when risk factors are plentiful, greater emphasis needs to be placed on the role social and physical ecologies play in positive developmental outcomes when individuals encounter significant amounts of stress. Four principles are presented as the basis for an ecological interpretation of the resilience construct: decentrality, complexity, atypicality, and cultural relativity. These 4 principles, and the research upon which they are based, inform a definition of resilience that emphasizes the environmental antecedents of positive growth. This framework can
guide future theory development, research, and the design of interventions that promote well-being among populations who experience environments that inhibit resilience-promoting processes.

5.10 Take Care of Yourself

Building Resilience by Wasting Time


Research suggests that engaging in some activities we assume are nonproductive—such as tiny exercises—may actually be a smart way to spend time, especially at work. These practices can make people more resourceful problem solvers, more collaborative, and less likely to give up when the going gets tough. There are four aspects to the ability to snap back and go on after a hit—physical, mental, emotional, and social—and each one can be developed with activities that appear to fritter away time. As you might expect, physical resilience is crucial because it allows your heart, lungs, and brain to react efficiently to stressful situations. Research also shows that willpower gets stronger the more we exercise it. How about emotional resilience? To be less afraid of failure and more open to using different strategies, try to experience, on average, three positive emotions for every one negative emotion over the course of the day. Finally, social resilience is about the relationships that help us find resources when we need them.

Enhancing Daily Well-Being at Work Through Lunchtime Park Walks and Relaxation Exercises: Recovery Experiences as Mediators


Only few studies so far have examined recovery from work during workday breaks. In this intervention study, based on the effort-recovery model and the conservation of resources theory, we examined how to enhance recovery during lunch breaks. More specifically, we examined the within-person effects of lunchtime park walks and relaxation exercises on employees’ levels of concentration, strain, and fatigue experienced at the end of a working day. We moreover tested whether detachment from work and enjoyment experienced during lunch breaks transmitted the effects of these activities to well-being outcomes. Participants in the park walk (n = 51) and relaxation (n = 46) groups were asked to complete a 15-min exercise during their lunch break on 10 consecutive working days. Afternoon well-being, lunchtime detachment, and lunchtime enjoyment were assessed twice a week before, during, and after the intervention, related to better concentration and less fatigue in the afternoon through enjoyment. Relaxation exercises were related to better concentration in the afternoon via detachment. In addition, relaxation exercises were directly linked to lower levels of strain and fatigue in the afternoon. Our study suggests that on days on which employees engage in recovering activities during lunch breaks, they experience higher levels of well-being at the end of a working day. These results add to the
theory-based knowledge on recovery during workday breaks and highlight the importance of breaks for organizational practices.

**Essential Principles of Staff Care: Practices to Strengthen Resilience in International Humanitarian and Development Organizations**


There are a number of benefits to promoting the health and safety of humanitarian and development personnel. People who are feel physically safe and psychologically secure are more likely to be productive and engaged. A productive and engaged workforce may have low levels of absenteeism and high levels of loyalty. An organization’s reputation for taking care of their team members may mean they are able to attract the top talent. These factors arguably contribute to an organization that has greater likelihood of achieving its mission. *Essential Principles of Staff Care: Practices to Strengthen Resilience in International Humanitarian and Development Organizations* aims to outline the principles and practices that, if implemented, will contribute to the resilience and psychological health of humanitarian and development personnel and strengthen an organization’s ability to offer a comprehensive staff care program. Throughout this document we use the phrase “staff care and resilience.” The use of this phrase reflects a central philosophy in our work. We believe organizations have a role to play in promoting psychological health. They do this through staff care programs and services. We believe that individuals have reservoirs of strengths and abilities and a responsibility to protect and steward those strengths and abilities. This is resilience. We use the phrase “staff care and resilience” to reflect the joint responsibility and opportunity to contribute to a workforce that thrives.

**The Resilience Ingredient List**


This article was published by CNBC explaining the 7 ‘ingredients’ of resilience and provides real-life examples of each one. The seven resilience ingredients include: emotional awareness and control, impulse control, realistic optimism, flexible thinking, self-efficacy, empathy, and reaching out. Everyone has some ingredients they’re stronger at and some they’re weaker in, and everyone can work to strengthen these ingredients.
5.10.1 Mindfulness

**Argentine Tango Dance Compared to Mindfulness Meditation and a Waiting-List Control: A Randomized Trial for Treating Depression**


Objectives: To determine whether tango dancing is as effective as mindfulness meditation in reducing symptoms of psychological stress, anxiety and depression, and in promoting well-being. Design: This study employed analysis of covariance (ANCOVA) and multiple regression analysis. Participants: Ninety-seven people with self-declared depression were randomized into tango dance or mindfulness meditation classes, or to control/waiting-list. Setting: classes were conducted in a venue suitable for both activities in the metropolitan area of Sydney, Australia. Interventions: Participants completed six-week programs (1½ h/week of tango or meditation). The outcome measures were assessed at pre-test and post-test. Main outcome measures: Depression, Anxiety and Stress Scale; The Self Esteem Scale; Satisfaction with Life Scale, and Mindful Attention Awareness Scale. Results: Sixty-six participants completed the program and were included in the statistical analysis. Depression levels were significantly reduced in the tango (effect size $d = 0.50$, $p = .010$), and meditation groups (effect size $d = 0.54$, $p = .025$), relative to waiting-list controls. Stress levels were significantly reduced only in the tango group (effect size $d = 0.45$, $p = .022$). Attending tango classes was a significant predictor for the increased levels of mindfulness $R^2 = .10$, adjusted $R^2 = .07$, $F(2,59) = 3.42$, $p = .039$. Conclusion: Mindfulness-meditation and tango dance could be effective complementary adjuncts for the treatment of depression and/or inclusion in stress management programs. Subsequent trials are called to explore the therapeutic mechanisms involved.

**Mindfulness Meditation Training Changes Brain Structure in Eight Weeks**


Participating in an 8-week mindfulness meditation program appears to make measurable changes in brain region associated with memory, sense of self, and empathy and stress. Previous studies have found structural differences between the brains of experienced meditation practitioners and individuals with no history of meditation, observing thickening of the cerebral cortex in areas associated with attention and emotional integration. An analysis of MR images, which focused on areas where meditation-associated differences were seen in earlier studies, found increase grey matter density in the hippocampus, known to be important for learning and memory, and in structures associated with self-awareness, compassion, and introspection. Participant reported reductions in stress also were correlated with decreased grey matter density in the amygdala, which is known to play an important role in anxiety and stress. Although no change was seen in
a self-awareness associated structure called the insula, which had been identified in earlier studies, the authors suggest that longer-term meditation practice might be needed to produce changes in that area. None of these changes were seen in the control group, indicating that they had not resulted merely from the passage of time.

**Mindfulness-Based Mind Fitness Training (MMFT)**


Mindfulness-based Mind Fitness Training (MMFT) is a 20-hour course designed to improve performance and enhance resilience for individuals working in an extreme stress environment. MMFT blends (1) mindfulness skills training with (2) information and skills that promote stress resilience and (3) concrete applications for the operational environment. The result is a ‘mental armor’ which both increases warriors’ operational effectiveness and enhances their capacity to bounce back from stressful experience. Concrete applications and contextual information demonstrate the utility of mindfulness skills and make them accessible, while mindfulness skills support the body’s natural stress self-regulation process. This blend of skills training and contextual understanding helps practitioners learn how to be aware, what they need to be aware of and why they need to be aware. Ultimately, the result is the ability to respond effectively to stressors, both internal and external, rather than react habitually in ways that may undermine individual or group objectives.

**Thriving or Just Surviving?**


Pressure is simply a demand to perform, and when there’s high demand there’s also high arousal to meet the demand. Adrenaline levels rise and the body is provoked into ‘fight or flight’ mode, but this is not stress. Rumination provokes ‘fight or flight’ where levels of hormone like adrenaline and cortisol increase, and blood pressure rises. Nothing is actually happening, all you’re reacting to is a thought in your head. Ruminating about emotional upset is the most appropriate way of defining stress. A state of captured attention is what lies between the ordinary states of sleep and being awake, and is defined as waking sleep. Of course, these pleasant reveries are hardly stressful, but since you can’t work and sleep, for as long as attention is caught like this, no work gets done. The first two steps of waking up and taking control of your attention allow you to connect fully with the present, where the action is. This in turn leads to the third step, which is to develop a detached view. ‘Detachment’ can suggest being aloof or cold, but what’s really meant by detachment is keeping things in perspective, people who are detached don’t turn molehills into mountains. Resilience is a fundamental life skill that can be learned and perfected and resilient people work smarter because they can negotiate the inevitable changes that are the one certainty in life.
5.11 The Brain-Neuroscience

Brain Facts: A Primer on the Brain and Nervous System


The human brain – a spongy, three-pound mass of tissue – is the most complex living structure in the universe. With the capacity to create a network of connections that far surpasses any social network and stores more information than a supercomputer, the brain has enabled humans to achieve breathtaking milestones – walking on the moon, mapping the human genome, and composing masterpieces of literature, art, and music. Neuroscientists, whose specialty is the study of the brain and nervous system, have the daunting task of deciphering the mystery of how the brain commands the body. Recently, significant findings have been documented in the following areas: genetics, gene-environment interactions, brain plasticity, new therapies, imaging, cell death, and brain development. This book provide a glimpse of what is known about the nervous system, the disorders of the brain, and some of the exciting avenues of research that promise new therapies for many neurological diseases. In the years ahead, neuroscience research funded by public and private support will continue to expand our knowledge of how this extraordinary organ and the entire nervous system functions.

Adapting to Stress: Understanding the Neurobiology of Resilience


There is significant variation in the way individuals react and respond to extreme stress and adversity. While some individuals develop psychiatric conditions such as posttraumatic stress disorder or major depressive disorder, others recover from stressful experiences without displaying significant symptoms of psychological ill-health, demonstrating stress-resilience. To understand why some individuals exhibit characteristics of a resilient profile, the interplay between neurochemical, genetic, and epigenetic processes over time needs to be explained. In this review, we examine the hormones, neuropeptides, neurotransmitters, and neural circuits associated with resilience and vulnerability to stress-related disorders. We debate how this increasing body of knowledge could also be useful in the creation of a stress-resilient profile. Additionally, identification of the underlying neurobiological components related to resilience may offer a contribution to improved approaches toward the prevention and treatment of stress-related disorders.
Alterations in Resting State Functional Connectivity Link Mindfulness Meditation with Reduced Interleukin-6: A Randomized Controlled Trial


Background: Mindfulness meditation training interventions have been shown to improve markers of health, but the underlying neurobiological mechanisms are not known. Building on initial cross-sectional research showing that mindfulness meditation may increase default mode network (DMN) resting state functional connectivity (rsFC) with regions important in top-down executive control (dorsolateral prefrontal cortex, d1PFC), here we test whether these rsFC alterations prospectively explain improvements in interleukin-6 (IL-6) in a randomized controlled trial. Method: Stressed job-seeking unemployed community adults (N=35) were randomized to either a 3-day intensive residential mindfulness meditation or relaxation training program. Participants completed a five-minute resting state scan before and after the intervention program. Participants also provided blood samples at pre-intervention and at 4-month follow-up, which were assayed for circulating IL-6, a biomarker of systemic inflammation. Results: We tested for alterations in DMN rsFC using a posterior cingulate cortex (PCC) seed-based analysis, and found that mindfulness meditation training, and not relaxation training, increased PCC rsFC with left d1PFC (p<.05, corrected). These pre-post training alterations in PCC-d1PFC rsFC statistically mediated mindfulness meditation training improvements in IL-6 at 4-month follow-up. Specifically, these alteration in rsFC statistically explained 30% of the overall mindfulness meditation training effects on IL-6 at follow-up. Conclusions: These findings provide the first evidence that mindfulness meditation training functionally couples the DMN with a region known to be important in top-down executive control at rest (left d1PFC), which in turn is associated with improvements in a marker of inflammatory disease risk.

Autonomic Nervous System Responses to Viewing Green and Built Settings: Differentiating Between Sympathetic and Parasympathetic Activity


This laboratory study explored buffering and recovery effects of viewing urban green and built spaces on autonomic nervous system activity. Forty-six students viewed photos of green and built spaces immediately following, and preceding acute stress induction. Simultaneously recorded electrocardiogram and impedance cardiogram signal was used to derive respiratory sinus arrhythmia (RSA) and pre-ejection period (PEP), indicators of respectively parasympathetic and sympathetic activity. The findings provide support for greater recovery after viewing green scenes, as marked by a stronger increase in RSA as a marker of
parasympathetic activity. There were no indications for greater recovery after viewing green scenes in PEP as a marker of sympathetic activity, and there were also no indications of greater buffering effects of green space in neither RSA nor PEP. Overall, our findings are consistent with a predominant role of the parasympathetic nervous system in restorative effects of viewing green space.

Cellular Plasticity and Resilience and the Pathophysiology of Severe Mood Disorders


Recent advances in the identification of the neural circuits, neurochemicals, and signal transduction mechanisms involved in the pathophysiology and treatment of mood disorders have led to much progress toward understanding the roles of genetic factors and psychosocial stressors. The monoaminergic neurotransmitter systems have received the most attention, partly because of the observation that effective antidepressant drugs exert their primary biochemical effects by regulating intrasynaptic concentrations of serotonin and norepinephrine. Furthermore, the monoaminergic systems are extensively distributed throughout the network of limbic, striatal, and prefrontal cortical neuronal circuits thought to support the behavioral and visceral manifestations of mood disorders. Increasing numbers of neuroimaging, neuropathological, and biochemical studies indicate impairments in cellular plasticity and resilience in patients who suffer from severe, recurrent mood disorders. In this paper, we describe studies identifying possible structural, functional, and cellular abnormalities associated with depressive disorders, which are potentially the cellular underpinnings of these diseases. We suggest that drugs designed to enhance cellular plasticity and resilience, and attenuate the activity of maladaptive stress-responsive systems, may be useful for the treatment of severe mood disorders.

Cognitive Rehabilitation of Attention Deficits in Traumatic Brain Injury Using Action Video Games: A Controlled Trial


This paper investigates the utility and efficacy of a novel eight-week cognitive rehabilitation programme developed to remediate attention deficits in adults who have sustained a traumatic brain injury (TBI), incorporating the use of both action video game playing and a compensatory skills programme. Thirty-one male TBI patients, aged 18–65 years, were recruited from 2 Australian brain injury units and allocated to either a treatment or waitlist (treatment as usual) control group. Results showed improvements in the treatment group, but not the waitlist control group, for performance on the immediate trained task (i.e. the video game) and in non-trained measures of attention and quality of life. Neither group showed changes to executive behaviors
or self-efficacy. The strengths and limitations of the study are discussed, as are the potential applications and future implications of the research.

**Decision Making Under Stress: A Selective Review**


Many decisions must be made under stress, and many decision situations elicit stress responses themselves. Thus, stress and decision making are intricately connected, not only on the behavioral level, but also on the neural level, i.e., the brain regions that underlie intact decision making are regions that are sensitive to stress-induced changes. The purpose of this review is to summarize the findings from studies that investigated the impact of stress on decision making. The review includes those studies that examined decision making under stress in humans and were published between 1985 and October 2011. The reviewed studies were found using PubMed and PsycInfo searches. The review focuses on studies that have examined the influence of acutely induced laboratory stress on decision making and that measured both decision-making performance and stress responses. Additionally, some studies that investigated decision making under naturally occurring stress levels and decision-making abilities in patients who suffer from stress-related disorders are described. The results from the studies that were included in the review support the assumption that stress affects decision making. If stress confers an advantage or disadvantage in terms of outcome depends on the specific task or situation. The results also emphasize the role of mediating and moderating variables. The results are discussed with respect to underlying psychological and neural mechanisms, implications for everyday decision making and future research directions.

**Decreased SGK1 Expression and Function Contributes to Behavioral Deficits Induced by Traumatic Stress**


Exposure to extreme stress can trigger the development of major depressive disorder (MDD) as well as post-traumatic stress disorder (PTSD). The molecular mechanisms underlying the structural and functional alterations within corticolimbic brain regions, including the prefrontal cortex (PFC) and amygdala of individuals subjected to traumatic stress, remain unknown. In this study, we show that serum and glucocorticoid regulated kinase 1 (SGK1) expression is downregulated in the postmortem PFC of PTSD subjects. Furthermore, we demonstrate that inhibition of SGK1 in the rat medial PFC results in helplessness- and anhedonic-like behaviors in rodent models. These behavioral changes are accompanied by abnormal dendritic spine morphology and synaptic dysfunction. Together, the results are consistent with the possibility that altered SGK1
signal contributes to the behavioral and morphological phenotypes associated with traumatic stress pathophysiology.

Effects of Lifetime Stress Exposure on Mental and Physical Health in Young Adulthood: How Stress Degrades and Forgiveness Protects Health


To examine risk and resilience factors that affect health, lifetime stress exposure histories, dispositional forgiveness levels, and mental and physical health were assessed in 148 young adults. Greater lifetime stress severity and lower levels of forgiveness each uniquely predicted worse mental and physical health. Analyses also revealed a graded Stress × Forgiveness interaction effect, wherein associations between stress and mental health were weaker for persons exhibiting more forgiveness. These data are the first to elucidate the interactive effects of cumulative stress severity and forgiveness on health, and suggest that developing a more forgiving coping style may help minimize stress-related disorders.

Enhancing Depression Mechanisms in Midbrain Dopamine Neurons Achieves Homeostatic Resilience


Typical therapies try to reverse pathogenic mechanisms. Here, we describe treatment effects achieved by enhancing depression-causing mechanisms in ventral tegmental area (VTA) dopamine (DA) neurons. In a social defeat stress model of depression, depressed (susceptible) mice display hyperactivity of VTA DA neurons, caused by an up-regulated hyperpolarization-activated current ($I_h$). Mice resilient to social defeat stress, however, exhibit stable normal firing of these neurons. Unexpectedly, resilient mice had an even larger $I_h$, which was observed in parallel with increased potassium ($K^+$) channel currents. Experimentally further enhancing $I_h$ or optogenetically increasing the hyperactivity of VTA DA neurons in susceptible mice completely reversed depression-related behaviors, an antidepressant effect achieved through resilience-like, projection-specific homeostatic plasticity. These results indicate a potential therapeutic path of promoting natural resilience for depression treatment.
Inflammation, Sanitation, and Consternation


Context: Inflammation is increasingly recognized as contributing to the pathogenesis of major depressive disorder (MDD), even in individuals who are otherwise medically healthy. Most studies in search of sources for this increased inflammation have focused on factors such as psychosocial stress and obesity that are known to activate inflammatory processes and increase the risk for depression. However, MDD may be so prevalent in the modern world not just because proinflammatory factors are widespread, but also because we have lost contact with previously available sources of anti-inflammatory, immunoregulatory signaling. Objective: To examine evidence that disruptions in coevolved relationships with a variety of tolerogenic microorganisms that were previously ubiquitous in soil, food, and the gut, but that are largely missing from industrialized societies, may contribute to increasing rates of MDD in the modern world. Data Sources: Relevant studies were identified using PubMed and Ovid MEDLINE. Study Selection: Included were laboratory animal and human studies relevant to immune functioning, the hygiene hypothesis, and major depressive disorder identified via PubMed and Ovid MEDLINE searches. Data Extraction: Studies were reviewed by all authors, and data considered to be potentially relevant to the contribution of hygiene-related immune variables to major depressive disorder were extracted. Data Synthesis: Significant data suggest that a variety of microorganisms (frequently referred to as the “old friends”) were tasked by coevolutionary processes with training the human immune system to tolerate a wide array of nonthreatening but potentially proinflammatory stimuli. Lacking such immune training, vulnerable individuals in the modern world are at significantly increased risk of mounting inappropriate inflammatory attacks on harmless environmental antigens (leading to asthma), benign food contents and commensals in the gut (leading to inflammatory bowel disease), or self-antigens (leading to any of a host of autoimmune diseases). Loss of exposure to the old friends may promote MDD by increasing background levels of depressogenic cytokines and may predispose vulnerable individuals in industrialized societies to mount inappropriately aggressive inflammatory responses to psychosocial stressors, again leading to increased rates of depression. Conclusion: Measured exposure to the old friends or their antigens may offer promise for the prevention and treatment of MDD in modern industrialized societies.

MAP Training: Combining Meditation and Aerobic Exercise Reduces Depression and Rumination while Enhancing Synchronized Brain Activity


Mental and physical (MAP) training is a novel clinical intervention that combines mental training through meditation and physical training through aerobic exercise. The intervention was translated from neuroscientific studies indicating that MAP training increases neurogenesis in the adult brain. Each session consisted of 30 min of focused-attention (FA) meditation and 30 min of
moderate-intensity aerobic exercise. Fifty-two participants completed the 8-week intervention, which consisted of two sessions per week. Following the intervention, individuals with major depressive disorder (MDD; \(n=22\)) reported significantly less depressive symptoms and ruminative thoughts. Typical healthy individuals \((n=30)\) also reported less depressive symptoms at follow-up. Behavioral and event-related potential indices of cognitive control were collected at baseline and follow-up during a modified flanker task. Following MAP training, N2 and P3 component amplitudes increased relative to baseline, especially among individuals with MDD. These data indicate enhanced neural responses during the detection and resolution of conflicting stimuli. Although previous research has supported the individual beneficial effects of aerobic exercise and meditation for depression, these findings indicate that a combination of the two may be particularly effective in increasing cognitive control processes and decreasing ruminative thought patterns.

**Mind Changing Brain Changing Mind**


‘Mind’ is defined as the flow of information through the nervous system, most of which is forever unconscious. The ‘brain’ is embedded in larger systems, including the nervous system as a whole, other bodily systems, and then biology, culture, and evolution. The view, generally shared within Western science, is that every mental state is correlated with a necessary and proximally sufficient brain state. This integration of mind and brain has three important implications. First, as your mind changes, your brain changes. Second, as your mind changes, your brain changes. Many of those changes are fleeting, as your brain changes moment to moment to support the movement of information. But many are lasting, as neurons wire together: structure builds in the brain. The third implication is the practical one, and that’s where we’ll focus: you can use your mind to change your brain to benefit your whole being. Meditation benefits us through multiple pathways. Parasympathetic activation (“rest-and-digest”) – relaxation, in other words – is very supportive of immune system functioning whereas sympathetic activation (“fight-or-flight”) suppresses immune function. In the Dharma, there’s this notion of the chain of Dependent Origination. One part of that chain that contains great opportunities to reduce or eliminate suffering is the sequence of contact > feeling tone > craving > clinging > suffering. Equanimity can break the chain between feeling tone and craving as it increasingly allows us to just be present with the pleasant, the unpleasant, and the neutral alike without getting reactivated around them.
Neuroinflammatory Dynamics Underlie Memory Impairments after Repeated Social Defeat


Repeated social defeat (RSD) is a murine stressor that recapitulates key physiological, immunological, and behavioral alterations observed in humans exposed to chronic psychosocial stress. Psychosocial stress promotes prolonged behavioral adaptations that are associated with neuroinflammatory signaling and impaired neuroplasticity. Here, we show that RSD promoted hippocampal neuroinflammatory activation that was characterized by proinflammatory gene expression and by microglia activation and monocyte trafficking that was particularly pronounced within the caudal extent of the hippocampus. Because the hippocampus is a key area involved in neuroplasticity, behavior, and cognition, we hypothesize that stress-induced neuroinflammation impairs hippocampal neurogenesis and promotes cognitive and affective behavioral deficits. We show here that RSD caused transient impairments in spatial memory recall that resolved within 28 d. In assessment of neurogenesis, the number of proliferating neural progenitor cells (NPCs) and the number of young, developing neurons were not affected initially after RSD. Nonetheless, the neuronal differentiation of NPCs that proliferated during RSD was significantly impaired when examined 10 and 28 d later. In addition, social avoidance, a measure of depressive-like behavior associated with caudal hippocampal circuitry, persisted 28 d after RSD. Treatment with minocycline during RSD prevented both microglia activation and monocyte recruitment. Inhibition of this neuroinflammatory activation in turn prevented impairments in spatial memory after RSD but did not prevent deficits in neurogenesis nor did it prevent the persistence of social avoidance behavior. These findings show that neuroinflammatory activation after psychosocial stress impairs spatial memory performance independent of deficits in neurogenesis and social avoidance.

Neurobiology of Resilience


Humans exhibit a remarkable degree of resilience in the face of extreme stress, with most resisting the development of neuropsychiatric disorders. Over the past 5 years, there has been increasing interest in the active, adaptive coping mechanisms of resilience; however, in humans, most published work focuses on correlative neuroendocrine markers that are associated with a resilient phenotype. In this review, we highlight a growing literature in rodents that is starting to complement the human work by identifying the active behavioral, neural, molecular and hormonal basis of resilience. The therapeutic implications of these findings are important and can pave the way for an innovative approach to drug development for a range of stress-related syndromes.
Psychobiological Mechanisms of Resilience and Vulnerability: Implications for Successful Adaptation to Extreme Stress


Objective: Most research on the effects of severe psychological stress has focused on stress-related psychopathology. Here, the author develops psychobiological models of resilience to extreme stress. Method: An integrative model of resilience and vulnerability that encompasses the neurochemical response patterns to acute stress and the neural mechanisms mediating reward, fear conditioning and extinction, and social behavior is proposed. Results: Eleven possible neurochemical, neuropeptide, and hormonal mediators of the psychobiological response to extreme stress were identified and related to resilience or vulnerability. The neural mechanisms of reward and motivation (hedonism, optimism, and learned helpfulness), fear responsiveness (effective behaviors despite fear), and adaptive social behavior (altruism, bonding, and teamwork) were found to be relevant to the character traits associated with resilience. Conclusions: The opportunity now exists to bring to bear the full power of advances in our understanding of the neurobiological basis of behavior to facilitate the discoveries needed to predict, prevent, and treat stress-related psychopathology.

Stress Increases Ethanol Self-Administration via a Shift toward Excitatory GABA Signaling in the Ventral Tegmental Area


Stress is a well-known risk factor for subsequent alcohol abuse, but the neural mechanisms underlying interactions between stress and alcohol remain largely unknown. Addictive drug reinforcement and stress signaling involve common neural circuitry, including the mesolimbic dopamine system. We demonstrate in rodents that pre-exposure to stress attenuates alcohol-induced dopamine responses and increases alcohol self-administration. The blunted dopamine signaling resulted from ethanol induced excitation of GABA neurons in the ventral tegmental area. Excitation of GABA neurons was mediated by GABAA receptor activation and involved stress-induced functional downregulation of the K+, Cl− cotransporter, KCC2. Blocking stress hormone receptors, enhancing KCC2 function, or preventing excitatory GABA signaling by alternative methods all prevented the attenuated alcohol-induced dopamine response and prevented the increased alcohol self-administration. These results demonstrate that stress alters the neural and behavioral responses to alcohol through a neuroendocrine signal that shifts inhibitory GABA transmission toward excitation.
The Effects of Incentive Framing on Performance Decrements for Large Monetary Outcomes: Behavioral and Neural Mechanisms


There is a nuanced interplay between the provision of monetary incentives and behavioral performance. Individuals’ performance typically increases with increasing incentives only up to a point, after which larger incentives may result in decreases in performance, a phenomenon known as “choking.” We investigated the influence of incentive framing on choking effects in humans: in one condition, participants performed a skilled motor task to obtain potential monetary gains; in another, participants performed the same task to avoid losing a monetary amount. In both the gain and loss frame, the degree of participants’ behavioral loss aversion was correlated with their susceptibility to choking effects. However, the effects were markedly different in the gain and loss frames: individuals with higher loss aversion were susceptible to choking for large prospective gains and not susceptible to choking for large prospective losses, whereas individuals with low loss aversion choked for large prospective losses but not for large prospective gains. Activity in the ventral striatum was predictive of performance decrements in both the gain and loss frames. Moreover, a mediation analysis revealed that behavioral loss aversion hindered performance via the influence of ventral striatal activity on motor performance. Our findings indicate that the framing of an incentive has a profound effect on an individual’s susceptibility to choking effects, which is contingent on their loss aversion. Furthermore, we demonstrate that the ventral striatum serves as an interface between incentive-driven motivation and instrumental action, regardless of whether incentives are framed in terms of potential losses or gains.

The Neuroscience of Resilience


This cutting edge article explores how to strengthen our capacities for resilience from the bottom up – at the level of neurons firing in new patterns that promote flexibility in the face of change. The article traces the nine functions of the pre-frontal cortex, considered by some neuropsychologists to be an evolutionary masterpiece, and offers practical tools to strengthen each of the nine functions: 1) regulating our nervous system so we can stay calm and engaged, 2) quelling the fear response, 3) regulating emotions so resilience is not blocked by fear or shame, 4) attunement – the safety and trust of feeling felt, 5) empathy – the safety and trust of being seen, known, and understood, 6) response flexibility – the capacity to pause, recognize and evaluate options, and make appropriate decisions, the fulcrum of resilience, 7) insight – self-awareness, 8) intuition – the guidance of our gut feelings, and 9) morality based on a sense of connection with others and the common good. It is in the integration of these functions that is the true neural substrate of resilience.
When the Brain Does Not Adequately Feel the Body: Links Between Low Resilience and Interoception


This study examined neural processes of resilience during aversive interoceptive processing. Forty-six individuals were divided into three groups of resilience Low (LowRes), high (HighRes), and normal (NormRes), based on the Connor-Davidson Resilience Scale (2003). Participants then completed a task involving anticipation and experience of loaded breathing during functional magnetic resonance imaging (fMRI) recording. Compared to HighRes and NormRes groups, LowRes self-reported lower levels of interoceptive awareness and demonstrated higher insular and thalamic activation across anticipation and breathing load conditions. Thus, individuals with lower resilience show reduced attention to bodily signals but greater neural processing to aversive bodily perturbations. In low resilient individuals, this mismatch between attention to and processing of interoceptive afferents may result in poor adaptation in stressful situations.

6.0 PTSD

A Systematic Review of PTSD Prevalence and Trajectories in DSM-5 Defined Trauma Exposed Populations: Intentional and Non-Intentional Traumatic Events


Objective: We conducted a systematic review of the literature to explore the longitudinal course of PTSD in DSM-5-defined trauma exposed populations to identify the course of illness and recovery for individuals and populations experiencing PTSD. Methods: We reviewed the published literature from January 1, 1998 to December 31, 2010 for longitudinal studies of directly exposed trauma populations in order to: (1) review rates of PTSD in the first year after a traumatic event; (2) examine potential types of proposed DSM-5 direct trauma exposure intentional and non-intentional); and (3) identify the clinical course of PTSD (early onset, later onset, chronicity, remission, and resilience). Of the 2537 identified articles, 58 articles representing 35 unique subject populations met the proposed DSM-5 criteria for experiencing a traumatic event, and assessed PTSD at two or more time points within 12 months of the traumatic event. Results: The mean prevalence of PTSD across all studies decreases from 28.8% (range = 3.1–87.5%) at 1 month to 17.0% (range = 0.6–43.8%) at 12 months. However, when traumatic events are classified into intentional and non-intentional, the median prevalence’s trend down for the non-intentional trauma exposed populations, while the median prevalence’s in the intentional trauma category steadily increases from 11.8% to 23.3%. Across five studies with sufficient data, 37.1% of those exposed to intentional trauma develop PTSD. Among those with
PTSD, about one third (34.8%) remit after 3 months. Nearly 40% of those with PTSD (39.1%) have a chronic course, and only a very small fraction (3.5%) of new PTSD cases appears after three months. Conclusions: Understanding the trajectories of PTSD over time, and how it may vary by type of traumatic event (intentional vs. non-intentional) will assist public health planning and treatment.

Association of DSM-IV Posttraumatic Stress Disorder with Traumatic Experience Type and History in the World Health Organization World Mental Health Surveys


Importance: Previous research has documented significant variation in the prevalence of posttraumatic stress disorder (PTSD) depending on the type of traumatic experience (TE) and history of TE exposure, but the relatively small sample sizes in these studies resulted in a number of unresolved basic questions. Objective: To examine disaggregated associations of type of TE history with PTSD in a large cross-national community epidemiologic data set. Design, Setting, and Participants: The World Health Organization World Mental Health surveys assessed 29 TE types (lifetime exposure, age at first exposure) with DSM-IV PTSD that was associated with 1 randomly selected TE exposure (the random TE) for each respondent. Surveys were administered in 20 countries (n = 34 676 respondents) from 2001 to 2012. Data were analyzed from October 1, 2015, to September 1, 2016. Main Outcomes and Measures: Prevalence of PTSD assessed with the Composite International Diagnostic Interview. Results: Among the 34 676 respondents (55.4% [SE, 0.6%] men and 44.6% [SE, 0.6%] women; mean [SE] age, 43.7 [0.2] years), lifetime TE exposure was reported by a weighted 70.3% of respondents (mean [SE] number of exposures, 4.5 [0.04] among respondents with any TE). Weighted (by TE frequency) prevalence of PTSD associated with random TEs was 4.0%. Odds ratios (ORs) of PTSD were elevated for TEs involving sexual violence (2.7; 95%CI, 2.0-3.8) and witnessing atrocities (4.2; 95%CI, 1.0-17.8). Prior exposure to some, but not all, same-type TEs was associated with increased vulnerability (e.g., physical assault; OR, 3.2; 95%CI, 1.3-7.9) or resilience (e.g., participation in sectarian violence; OR, 0.3; 95%CI, 0.1-0.9) to PTSD after the random TE. The finding of earlier studies that more general history of TE exposure was associated with increased vulnerability to PTSD across the full range of random TE types was replicated, but this generalized vulnerability was limited to prior TEs involving violence, including participation in organized violence (OR, 1.3; 95%CI, 1.0-1.6), experience of physical violence (OR, 1.4; 95%CI, 1.2-1.7), rape (OR, 2.5; 95%CI, 1.7-3.8), and other sexual assault (OR, 1.6; 95%CI, 1.1-2.3). Conclusion and Relevance: The World Mental Health survey findings advance understanding of the extent to which PTSD risk varies with the type of TE and history of TE exposure. Previous findings about the elevated PTSD risk associated with TEs involving assaultive violence was refined by showing agreement only for repeated occurrences. Some types of prior TE exposures are associated with increased resilience rather than increased vulnerability, connecting the literature on TE history with the literature on resilience after adversity. These results are valuable
in providing an empirical rationale for more focused investigations of these specifications in future studies.

Chapter 5: Religion and Spirituality in the Description of Posttraumatic Stress Disorder


PTSD, by its nature, involves consideration of worldview, and therefore of religion and spirituality, so considerations of religion and spirituality are important for accurate diagnosis of the condition. Herman wrote that traumatic events “undermine the belief systems that give meaning to human experience. They violate the victim’s faith in a natural or divine order and cast the victim into a state of existential crisis.” Traditional Christians believe in providence, God’s ultimately protective ordering of things. Hindus, Jains, Buddhists, and others believe in karma, the notion that the totality of a person’s actions in this life and in past lives determines the course of events. A study by Patel of Zimbabweans seeking care at a public health clinic found that half the subjects used spiritual models of illness and those patients who held the spiritual model had higher levels of mental disorder and were more likely to have a mental illness than those who did not. In DSM-V, proposed wording for regarding the role of religious and spiritual factors would be included as a second paragraph in the PTSD section on “Specific Culture and Age Features” and would read as follows: Individuals in different parts of the world interpret traumatizing events in widely varying ways. Their interpretations may reflect deeply held religious views that can shape the experience of the traumatic event either positively or negatively. Clinicians should familiarize themselves with the worldview of the patient to maximize their ability to offer culturally sensitive care. They found that religious coping, both positive and negative, was associated with severity of PTSD symptoms. Positive religious coping meant seeking spiritual support, collaboration with God in solving the problem, and positive religious appraisal of the problem. Negative religious coping was interpersonal religious discontent, questioning God’s power, and appraisal of the problem as God’s punishment. This suggests that an extreme reaction to trauma can threaten religious beliefs as well as needed social support.

Delayed-Onset Posttraumatic Stress Disorder: A Systematic Review of the Evidence


Objective: Since the diagnosis of delayed-onset posttraumatic stress disorder (PTSD) was introduced in DSM-III, there has been controversy over its prevalence and even its existence. The authors sought to resolve discrepant findings concerning the prevalence of delayed-onset PTSD by conducting a systematic review of the evidence. Method: A literature search was conducted for case reports and group studies with adequate measurement of delayed onset
PTSD according to DSM criteria. Studies that met inclusion criteria were examined for the defined length of delay for delayed-onset PTSD, presence of symptoms before full diagnostic criteria were met, length of follow-up, prevalence estimates, and other variables. Studies were also examined for differences between immediate-onset PTSD, delayed onset PTSD, and no-PTSD cases. Results: Ten case studies and 19 group studies met criteria for inclusion in the review. Studies consistently showed that delayed-onset PTSD in the absence of any prior symptoms was rare, whereas delayed onsets that represented exacerbations or reactivations of prior symptoms accounted on average for 38.2% and 15.3%, respectively, of military and civilian cases of PTSD. Conclusions: The discrepant findings in the literature concerning prevalence can be largely, but not completely, explained as being due to definitional issues. Little is known about what distinguishes the delayed-onset and immediate-onset forms of the disorder. Continuing scientific study of delayed-onset PTSD would benefit if future editions of DSM were to adopt a definition that explicitly accepts the likelihood of at least some prior symptoms.

Developing an Agenda for Translational Studies of Resilience and Vulnerability Following Trauma Exposure


Here we outline a translational research agenda for studies of resilience, defined as the process of adapting well in the face of adversity or trauma. We argue that an individual differences approach to the study of resilience, in which the full range of behavioral and biological responses to stress exposure is examined can be applied across human samples (e.g., people who have developed psychopathology versus those who have not; people who have been exposed to trauma versus those who have not) and even, in some cases, across species. We delineate important psychological resilience-related factors including positive affectivity and optimism, cognitive flexibility, coping, social support, emotion regulation, and mastery. Key brain regions associated with stress-related psychopathology have been identified with animal models of fear (e.g., extinction and fear conditioning; memory reconsolidation) and we describe how these regions can be studied in humans using neuroimaging technology. Finally, we cite recent research identifying neuroendocrine markers of resilience and recovery in humans (e.g., neuropeptide Y [NPY], dehydroepiandrosterone [DHEA]) that can also be measured, in some cases, in other species. That exposure to adversity or trauma does not necessarily lead to impairment and the development of psychopathology in all people is an important observation. Understanding why this is so will provide clues for the development of therapeutic interventions for those people who do develop stress-related psychopathology, or even for the prevention of adverse outcomes.
Emotion Regulation Difficulties and Posttraumatic Stress Disorder Symptom Cluster Severity Among Trauma-Exposed College Students


The present investigation examined the role of emotion regulation difficulties in predicting severity of the 3 posttraumatic stress disorder (PTSD) symptom clusters (i.e., re-experiencing, hyperarousal, avoidance) in a sample of undergraduates who reported exposure to at least 1 DSM–IV–TR Criterion A traumatic event (n=297; 77.1% female, M_age = 20.46, SD =4.64, range = 18–50 years). Results indicated that greater difficulties with emotional acceptance significantly predicted greater avoidance and hyperarousal symptom severity above and beyond the effects of number of trauma types endorsed and negative affect. Emotion regulation difficulties were not significantly predictive of re-experiencing symptom severity. Results from an exploratory analysis indicated that greater difficulties with emotional acceptance and greater difficulties accessing effective emotion regulation strategies when upset significantly predicted the DSM–5 negative alterations in cognitions and mood symptom cluster. These findings suggest that difficulties accepting one’s emotional responses, in particular, may heighten emotional responding to and avoidance of trauma-related cues. Thus, individuals who experience such difficulties may be more likely to experience negative outcomes after experiencing a traumatic event.

Feasibility, Acceptability, and Potential Efficacy of the PTSD Coach App: A Pilot Randomized Controlled Trial with Community Trauma Survivors


Objective: Posttraumatic stress disorder (PTSD) is a major public health concern. Although effective treatments exist, affected individuals face many barriers to receiving traditional care. Smartphones are carried by nearly 2 thirds of the U.S. population, offering a promising new option to overcome many of these barriers by delivering self-help interventions through applications (apps). As there is limited research on apps for trauma survivors with PTSD symptoms, we conducted a pilot feasibility, acceptability, and potential efficacy trial of PTSD Coach, a self-management smartphone app for PTSD. Method: A community sample of trauma survivors with PTSD symptoms (N = 49) were randomized to 1 month using PTSD Coach or a waitlist condition. Self-report assessments were completed at baseline, postcondition, and 1-month follow-up. Following the postcondition assessment, waitlist participants were crossed-over to receive PTSD Coach. Results: Participants reported using the app several times per week, throughout the day across multiple contexts, and endorsed few barriers to use. Participants also reported that PTSD Coach components were moderately helpful and that they had learned tools
and skills from the app to manage their symptoms. Between conditions effect size estimates were modest (d = −0.25 to −0.33) for PTSD symptom improvement, but not statistically significant. Conclusions: Findings suggest that PTSD Coach is a feasible and acceptable intervention. Findings regarding efficacy are less clear as the study suffered from low statistical power; however, effect size estimates, patterns of within group findings, and secondary analyses suggest that further development and research on PTSD Coach is warranted.

Meditation-Based Approaches in the Treatment of PTSD


Evidence-based psychotherapies (EBPs), such as Prolonged Exposure and Cognitive Processing Therapy, are generally the first-line interventions for PTSD. Unfortunately, many Veterans still have diagnosable PTSD following EBPs (Steenkamp, Litz, Hoge, & Marmar, 2015) or prefer to try other strategies (Markowitz et al., 2016). Thus, there is a strong need for ways to supplement existing treatments, reduce barriers to engagement in EBPs and provide alternatives for individuals who are affected by PTSD. As meditation-based treatments have gained popularity, many practitioners and researchers are incorporating them in the treatment of PTSD (Libby, Pilver, & Desai, 2012). Multiple types of meditation, which differ in philosophy and practice, have been applied clinically. This line of research is in its relative infancy, but initial evidence suggests that meditation-based approaches merit continued investigation to evaluate their efficacy, mechanisms, and implementation within Department of Veterans Affairs (VA) settings. Recent reviews summarize the impact of meditation as applied to PTSD and other mental health conditions. Hofmann, Grossman and Hinton (2011) reviewed evidence for the broadly beneficial effects of meditation on mental health. They observed that brief instruction and practice are sufficient to produce change in some trials and that improvements may occur via improved positive affect. Hilton and colleagues (2016) recently conducted a meta-analysis of meditation for PTSD. They observed that meditation trials generally led to small to moderate between-group effect sizes (standardized mean differences of -0.41 and -0.34 respectively) for improvements in PTSD and depressive symptoms compared to control conditions. Based on these observed positive effects on PTSD symptoms, they concluded that meditation is a promising adjunct to current PTSD treatments. However, it requires further investigation as much of the current literature base has insufficient methodological rigor. For instance, the authors noted that improving the descriptions of treatment as usual (TAU) control conditions could help elucidate the unique effects of meditation; analyzing adherence to protocols could help determine the minimum effective and optimal doses; and more detailed descriptions of the experience of therapists/practitioners could help understand how providers could implement these practices. Finally, Rees (2011) reviewed the role of meditation in resilience programs for military service members. This review found the most support for transcendental meditation (TM), followed by mindfulness and progressive muscle relaxation. Each was associated with a decrease in likelihood of experiencing a range of physical and mental health problems as well as lower health care utilization and overall costs. These reviews suggest meditation is promising as either an intervention or preventative measure for management of stress/PTSD and point to a future research agenda in this area.
Mindfulness And Meditation Training Could Ease PTSD Symptoms, Researchers Say


Over the past nine years, more than 2 million American soldiers have served in Iraq and Afghanistan. As many as several hundred thousand may now suffer from post-traumatic stress disorders, experts say. Practitioners of mindfulness meditation focus on a single thing happening in the moment, such as breathing, for a set period of time, generally at least 15 to 20 minutes. Studies have found that for regular practitioners, mindfulness has physical and emotional benefits. Mindfulness training improved soldiers’ capacity to retain new information, expanding their working memory. Mindfulness increases levels of insulin-like growth factor 1, a hormone that repairs cellular damage caused by stress. At the same time, it decreases levels of cortisol and neuropeptide Y, stress-related chemicals that over time can damage tissues. Mindfulness also alters brain circuitry. Using MRI scans, neuroscientists have found that meditation increases activity in the insula. This region of the brain plays a major role in the perception of bodily sensation – whether a given signal is interpreted as innocuous, painful, or pleasurable. The insula may improve the ability to handle stress and trauma by making the body’s physical and emotional signals more noticeable. Meditation also boosts activity in the frontal cortex and the parietal cortex, two brain regions that play a role in controlling emotions.

New Insights into Secondary Prevention in Post-traumatic Stress Disorder


Post-traumatic stress disorder (PTSD) is unique amongst psychiatric disorders in two ways. Firstly, there is usually a very clear point of onset—the traumatic event. The second unique feature of PTSD is that it is characterized by a failure of the normal response to resolve. Given these two characteristics, PTSD appears a good candidate for secondary prevention, i.e., interventions immediately after the trauma. Evidence available starting from current concepts and contemporary research of potential secondary prevention interventions is presented. Common practices in the aftermath of trauma such as debriefing and benzodiazepines need to be carefully considered, taking into account their potential harm to the spontaneous recovery process, and the trajectory of PTSD, and not only judging them according to their immediate (comforting) effects. A discussion of the balance required between aiding recovery but not interfering with the potent natural resolution of symptoms (that is expected in most cases), along with potential avenues of future research, are presented. Results of a small pilot study with a single intervention of hydrocortisone immediately after trauma appear to be promising, and clearly indicate the need for further studies.

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Posttraumatic Stress Disorder: Does the Gut Microbiome Hold the Key?


Gut bacteria strongly influence our metabolic, endocrine, immune, and both peripheral and central nervous systems. Microbiota do this directly and indirectly through their components, shed and secreted, ranging from fermented and digested dietary and host products to functionally active neurotransmitters including serotonin, dopamine, and γ-aminobutyric acid. Depression has been associated with enhanced levels of proinflammatory biomarkers and abnormal responses to stress. Posttraumatic stress disorder (PTSD) appears to be marked in addition by low cortisol responses, and these factors seem to predict and predispose individuals to develop PTSD after a traumatic event. Dysregulation of the immune system and of the hypothalamic-pituitary-adrenal axis observed in PTSD may reflect prior trauma exposure, especially early in life. Early life, including the prenatal period, is a critical time in rodents, and may well be for humans, for the functional and structural development of the immune and nervous systems. These, in turn, are likely shaped and programmed by gut and possibly other bacteria. Recent experimental and clinical data converge on the hypothesis that imbalanced gut microbiota in early life may have long-lasting immune and other physiologic effects that make individuals more susceptible to develop PTSD after a traumatic event and contribute to the disorder. This suggests that it may be possible to target abnormalities in these systems by manipulation of certain gut bacterial communities directly through supplementation or indirectly by dietary and other novel approaches.

Post-Traumatic Stress Disorder (PTSD): The Management of PTSD in Adults and Children in Primary and Secondary Care


Initial response to trauma: For individuals who have experienced a traumatic event, the systematic provision to that individual alone of brief, single-session interventions (often referred to as debriefing) that focus on the traumatic incident, should not be routine practice when delivering services. Where symptoms are mild and have been present for less than 4 weeks after the trauma, watchful waiting, as a way of managing the difficulties presented by people with posttraumatic stress disorder (PTSD), should be considered. A follow-up contact should be arranged within 1 month. Trauma-focused psychological treatment: Trauma-focused cognitive behavioral therapy should be offered to those with severe posttraumatic symptoms or with severe PTSD in the first month after the traumatic event. These treatments should normally be provided on an individual outpatient basis. All people with PTSD should be offered a course of trauma-focused psychological treatment (trauma-focused cognitive behavioral therapy [CBT] or eye movement desensitization and reprocessing [EMDR]). These treatments should normally be provided on an individual outpatient basis. Children and young people: Trauma-focused CBT
should be offered to older children with severe post-traumatic symptoms or with severe PTSD in the first month after the traumatic event. Children and young people with PTSD, including those who have been sexually abused, should be offered a course of trauma-focused CBT adapted appropriately to suit their age, circumstances and level of development. Drug treatments for adults: Drug treatments for PTSD should not be used as a routine first-line treatment for adults (in general use or by specialist mental health professionals) in preference to a trauma-focused psychological therapy. Drug treatments (paroxetine or mirtazapine for general use, and amitriptyline or phenelzine for initiation only by mental health specialists) should be considered for the treatment of PTSD in adults who express a preference not to engage in trauma-focused psychological treatment. Screening for PTSD: For individuals at high risk of developing PTSD following a major disaster, consideration should be given (by those responsible for coordination of the disaster plan) to the routine use of a brief screening instrument for PTSD at 1 month after the disaster.

Predeployment Mental Health and Trauma Exposure of Expatriate Humanitarian Aid Workers: Risk and Resilience Factors


Expatriate aid workers (*n* = 214) representing 19 nongovernmental organizations (NGOs) completed a predeployment survey, including measures of mental health (depression, anxiety, and posttraumatic stress disorder [PTSD]); risk factors (childhood trauma, family risk, and adult trauma exposure); and resilience factors (coping, social support, and healthy lifestyle) to assess their baseline mental health during preparation for deployment. Multiple regression analysis indicated that childhood trauma/family risk was not significantly related to depression, anxiety, or PTSD symptoms when controlling for report of prior mental illness; yet, adult trauma exposure was significantly related to all three. Social support contributed significant variance to depression and PTSD. NGOs can help applicants recognize the effects of recent trauma and the resilience provided by a healthy social network.

Predictors of Posttraumatic Stress Disorder and Other Psychological Symptoms in Trauma-Exposed Firefighters


Firefighters are exposed to a range of potentially traumatic stressors, yet studies examining the impact of this exposure are equivocal. Although some studies suggest increased risk for mental health problems, others suggest unusual resilience. Type of assessment methodology may contribute to the lack of consistent findings. We assessed 142 trauma-exposed, professional
firefighters utilizing a standardized clinical interview and self-report measures and found low rates of posttraumatic stress disorder (PTSD) diagnoses (4.2%), and depressive, anxiety, and alcohol-abuse symptoms. Frequency of trauma exposure did not predict psychological symptoms. Perceived social support, occupational stress, coping, as well as the interaction between perceived social support and self-blame were significant predictors of symptoms. Firefighters reporting low perceived social support and high self-blame demonstrated the highest levels of clinically significant symptoms. These findings may inform education, treatment, and resilience training for emergency personnel.

Psychobiology of Posttraumatic Disorder A Decade of Progress


Since the New York Academy of Sciences sponsored its 1996 conference, Psychobiology of Post-Traumatic Stress Disorder (PTSD), in New York City, there have been major research advances in the understanding and treatment of this disorder. Most of the biologic findings presented at the 1996 conference in extremely preliminary form have withstood the test of time and replication, and almost without exception the researchers who presented at the previous conference are still active researchers in the field of PTSD. The field has undergone a dramatic improvement in the quality of findings--issues that appeared to be relatively simple ten years ago with only limited data available are now far more complex. However, strategies for examining the psychobiology of PTSD have allowed the field to keep pace with these complexities. This volume integrates basic science and clinical research, so that both bench researchers and clinicians can develop a comprehensive understanding of recent progress in posttraumatic stress research, including its molecular biology, pathophysiology, neurology, epidemiology, clinical care, and psychosocial management.

Psychological Effect of an Analogue Traumatic Event Reduced by Sleep Deprivation


Study Objective: To examine the effect of sleep deprivation compared to sleep, immediately after experimental trauma stimuli on the development of intrusive memories to that trauma stimuli. Design: Participants were exposed to a film with traumatic content (trauma film). The immediate response to the trauma film was assessed, followed by either total sleep deprivation (sleep deprived group, N = 20) or sleep as usual (sleep group, N = 22). Twelve hours after the film viewing the initial psychological effect of the trauma film was measured and for the subsequent 6 days intrusive emotional memories related to the trauma film were recorded in daily life. Setting: Academic sleep laboratory and participants’ home environment. Participants: Healthy paid volunteers. Measurements and results: On the first day after the trauma film, the psychological effect as assessed by the Impact of Event Scale – Revised was lower in the sleep
deprived group compared to the sleep group. In addition, the sleep deprived group reported fewer intrusive emotional memories (mean 2.28, standard deviation [SD] 2.91) compared to the sleep group (mean 3.76, SD 3.35). Because habitual sleep/circadian patterns, psychological health, and immediate effect of the trauma film were similar at baseline for participants of both groups, the results cannot be accounted for by pre-existing inequalities between groups. Conclusions: Our findings suggest that sleep deprivation on one night, rather than sleeping, reduces emotional effect and intrusive memories following exposure to experimental trauma.

Psychological Trauma and Posttraumatic Stress Disorder: A Review


This paper presents a concise, fully-referenced, state-of-the-art review of psychological trauma and Posttraumatic Stress Disorder (PTSD) for emergency mental health practitioners. The nature of traumatic events, their common symptomatology, their disruptions to normal psychological and biological functioning, and the negative health consequences of untreated incidents are presented. Implications for the treatment of victims of traumatic events within the context of a Critical Incident Stress Management.

Resilience: Research Evidence and Conceptual Considerations for Posttraumatic Stress Disorder


The growing recognition and occurrence of traumatic exposure in the general population has given increased salience to the need to understand the concept of resilience. More than just the “flip side” of a risk factor, the notion of resilience encompasses psychological and biological characteristics, intrinsic to an individual, that might be modifiable and that confer protection against the development of psychopathology in the face of stress. In this review, we provide some perspective on the concept of “resilience” by examining early use of the term in research on “children at risk” and discuss the relationship between risk and resilience factors. We then review psychological and biological factors that may confer resilience to the development of posttraumatic stress disorder (PTSD) following trauma, examine how resilience has been assessed and measured, and discuss issues to be addressed in furthering our understanding of this critical concept going forward.
Risk and Resiliency in Posttraumatic Stress Disorder: Distinct Roles of Anxiety and Disgust Sensitivity


Although anxiety sensitivity and disgust sensitivity have been shown to predict adverse reactions to traumatic events, it remains unclear whether these traits are best conceptualized as risk or resilience factors for posttraumatic stress disorder (PTSD). In the present study, veterans with PTSD (n = 21), trauma-exposed veterans without PTSD (n =16), and healthy nonveteran controls (n =22) completed measures of anxiety sensitivity, disgust sensitivity, and emotion regulation. The findings showed that veterans with PTSD reported significantly higher levels of anxiety sensitivity than veterans without PTSD and healthy nonveteran controls. However, veterans without PTSD and healthy nonveteran controls did not significantly differ in anxiety sensitivity. In contrast, veterans without PTSD reported significantly lower disgust sensitivity than veterans with PTSD and healthy nonveteran controls. Furthermore, veterans with PTSD and healthy nonveteran controls did not significantly differ from each other in disgust sensitivity. These distinct patterns of differences in anxiety sensitivity and disgust sensitivity remained significant when controlling for group differences in expressive emotion suppression. These preliminary findings suggest that anxiety sensitivity and disgust sensitivity may differ in the extent to which they represent risk or resilience factors for the development of PTSD.

Stress and the Microbiota-Gut-Brain Axis: An Evolving Concept in Psychiatry


Evidence of the crucial role for the microbiota in regulating stress-related changes in physiology, behavior, and brain function has emerged mostly from animal studies. Findings have emerged showing that stress (either early in life or in adulthood) changed the microbiota composition or depended on it to induce its deleterious effects. The concept that bacteria were required for normal brain development emerged soon afterward. Indeed, the microbiota is shown to regulate many key processes in the adult brain, such as neurogenesis, and microglia activation. Psychobiotics (bacteria with positive effects on mental health) include specific strains such as bifidobacteria, lactobacilli, or bacteroides.
The Association of Exposure, Risk, and Resiliency Factors with PTSD Among Jews and Arabs Exposed to Repeated Acts of Terrorism in Israel


Israel has faced ongoing terrorism since the beginning of the Al Aqsa Intifada in September 2000. The authors examined risk and resiliency factors associated with posttraumatic stress disorder (PTSD) among 1,117 Jews and 394 Arab adult citizens of Israel during August and September 2004 through telephone interviews. Probable PTSD was found among 6.6% of Jews and 18.0% of Arabs. Predictors of probable PTSD in a multivariate model for Jews were refusal to report income, being traditionally religious, economic and psychosocial resource loss, greater traumatic growth, and lower social support. For Arabs, predictors were low education and economic resource loss among those exposed to terrorism. Findings for only those directly exposed to terrorism were similar to those for the overall national sample.

The Body Keeps the Score: Memory and the Evolving Psychobiology of Post-Traumatic Stress


Ever since people's responses to overwhelming experiences have been systematically explored, researchers have noted that a trauma is stored in somatic memory and expressed as changes in the biological stress response. Intense emotions at the time of the trauma initiate the long-term conditional responses to reminders of the event, which are associated both with chronic alterations in the physiological stress response and with the amnesias and hypermnesias characteristic of posttraumatic stress disorder (PTSD). Continued physiological hyperarousal and altered stress hormone secretion affect the ongoing evaluation of sensory stimuli as well. Although memory is ordinarily an active and constructive process, in PTSD failure of declarative memory may lead to organization of the trauma on a somatosensory level (as visual images or physical sensations) that is relatively impervious to change. The inability of people with PTSD to integrate traumatic experiences and their tendency, instead, to continuously relive the past are mirrored physiologically and hormonally in the misinterpretation of innocuous stimuli as potential threats. Animal research suggests that intense emotional memories are processed outside of the hippo-campally mediated memory system and are difficult to extinguish. Cortical activity can inhibit the expression of these subcortically based emotional memories. The effectiveness of this inhibition depends, in part, on physiological arousal and neurohormonal activity. These formulations have implications for both the psychotherapy and the pharmacotherapy of PTSD.
The Hidden Price of Repeated Traumatic Exposure: Different Cognitive Deficits in Different First-Responders


Studies on first responders who are repeatedly exposed to traumatic events report low levels of PTSD symptoms and diagnosis. However, neuroimaging and behavioral studies show that traumatic exposure is associated with brain and cognitive dysfunctions. Taking together it may suggest that traumatic exposure have a price, which is not sufficiently defined by the standard PTSD measures. In a recent study we revealed that similar to individuals with PTSD, non-PTSD highly exposed firefighters display a selective impairment in hippocampal related functions. In the current study we aimed to test whether different first responders display a similar impairment. We concentrated on unique populations of active duty firefighters and criminal scene-investigators (CSI) police, who are frequently exposed to similar levels and types of traumatic events, and compared them to civilian matched-controls with no history of trauma-exposure. We used a hippocampal dependent cue-context reversal paradigm, which separately evaluates reversal of negative and positive outcomes of cue and context related information. We predicted and found that all participants were equally able to acquire and retain stimulus-outcome associations. However, there were significant differences in reversal learning between the groups. Performance among firefighters replicated out prior findings; they struggled to learn that a previously negative context is later associated with a positive outcome. CSI police on the other hand showed a selective impairment in reversing the outcome of a negative cue. Hence after learning that a specific cue is associated with a negative outcome, they could not learn that later a specific cue is associated with a positive outcome. Performance in both groups did not correlate with levels of PTSD, anxiety, depression, or behavioral inhibition symptoms. The results provide further evidence of the hidden price of traumatic exposure, suggesting that this price may differ as a function of occupation.

The Role of Exposure Therapy in the Psychological Treatment of PTSD


Exposure therapies are empirically documented, effective treatments for PTSD. Efficacy studies with war veterans, rape victims, and survivors of a broad array of traumatic events demonstrate that this form of treatment is a valuable addition to a therapist’s clinical skills. When utilized with a comprehensive treatment program that addresses the psychological, social, and physiological elements of the disorder, exposure therapies offer innovative methods for addressing the symptoms of PTSD and for alleviating the residual emotion, distress, and physiological reactions to specific traumatic events.
Trauma, PTSD, and Resilience: A Literature Review


Based on the available literature, this review article investigates the issue of resilience in relation to trauma and posttraumatic stress disorder. Resilient coping to extreme stress and trauma is a multifaceted phenomenon characterized as a complex repertoire of behavioral tendencies. An integrative Person Situation model is developed based on the literature that specifies the nature of interactions among five classes of variables: (a) personality, (b) affect regulation, (c) coping, (d) ego defenses, and (e) the utilization and mobilization of protective factors and resources to aid coping.

Update on Posttraumatic Stress Disorder (PTSD)


The goal of this program is to improve the diagnosis and treatment of posttraumatic stress disorder (PTSD). After hearing and assimilating this program, the clinician will be better able to: 1) assess the risk for PTSD associated with different types of trauma; 2) list risk factors that predispose patients to development of PTSD; 3) identify approaches to secondary prevention of PTSD; 4) treat chronic PTSD with approved medical therapy; and 5) evaluate evidence on investigative and alternative therapies for PTSD.

What If PTSD Is More Physical Than Psychological?


Daniel Perl, a neuropathologist, examined brains of service members who died after blast exposures, finding a dust like scarring at the border between gray matter (whereas synapses reside) and the white matter that interconnects it. Several possibilities have now been explored for how blast damages the brain, including surges of blood upward from the chest; shearing loads on brain tissue; and the brain bouncing back and forth inside the skull, as it happens with concussions. It has been found that even if an animal’s head is protected during a blast, the brain can sustain damage, because the blast wave transfers through the body via blood and tissue. Blast injuries to the brain are cumulative and even small explosion with no discernible effects could, if repeated, produce terrible and irreversible damage. Blasts reflects off of hard surfaces and multiplies, so that people who appear to be protected inside an enclosed space like a Humvee often suffer much worse brain injuries than those outside. These patterns of scarring occur in places that correspond to the brains center for sleep, cognition, and other classic brain-injury trouble spots. Much of what has passed for emotional trauma may be reinterpreted and many veterans may step forward to demand recognition of an injury that cannot be definitely diagnosed.
until after death. The military has found a civilian contractor to build blast gauges. Every recruit or officer in a combat zone now wears three of these tiny devices which weight 20 grams each. The gauges are designed to turn red if they register a force of more than 12 pounds per square inch, the lower limit indicating a possible concussion or brain injury. The soldiers can no longer brush it off: If your sensor is red, you must be screened for brain injury. There will be calls for more research, for drug trials, for better helmets and for expanded veteran care. But these palliatives are unlikely to erase the crude message that lurks, unavoidable behind Perl’s discovery: Modern warfare destroys your brain.

Yoga for Trauma and Related Mental Health Problems: A Meta-Review with Clinical and Service Recommendations


Health and human service providers have expressed growing interest in the benefits of yoga to help individuals cope with the effects of trauma, including anxiety, depression, and posttraumatic stress disorder (PTSD). Despite the growing popularity and strong appeal of yoga, providers must be mindful of the evidence regarding the efficacy of yoga in treating trauma effects as well as trauma-related mental health symptoms and illnesses. Therefore, our research team sought to answer two questions: (a) What is the evidence regarding yoga as a treatment for trauma effects, including anxiety, depression, and PTSD and (b) what are the clinical and service recommendations for using yoga with trauma-exposed individuals? Our initial scans identified a substantial body of research, including reviews. Rather than replicate earlier efforts, we undertook a systematic meta-review of 13 literature reviews, one of which included a meta-analysis. We determined the 13 reviews examined 185 distinct studies. Findings show that the evidence regarding yoga as an intervention for the effects of trauma as well as the mental health symptoms and illnesses often associated with trauma is encouraging but preliminary. Overall, the body of research is lacking in rigor as well as specificity regarding trauma. Review results also only allow for the recommendation of yoga as an ancillary treatment. Further, the reviews had considerable differences in their methods and limitations. Nonetheless, the results yielded findings concerning how clinicians and service providers can use yoga in their own practices, which is an important step for building an evidence base in this area.
6.1 EMDR Research


EMDR is an active psychological treatment for PTSD that has received widely divergent reactions from the scientific and professional community. This article examines points of confusion in the published literature on EMDR, including the theoretical, empirical, and historical issues around EMDR and placebo effects, exposure procedures, the eye movement component, treatment fidelity issues, and outcome studies. It also examines historical information relevant to the scientific process and charges of “pseudoscience” regarding EMDR. We conclude that the confusion in the literature is due to (a) the lack of an empirically validated model capable of convincingly explaining the effects of the EMDR method, (b) inaccurate and selective reporting of research, (c) some poorly designed empirical studies, (d) inadequate treatment fidelity in some outcome research, and (e) multiple biased or inaccurate reviews by a relatively small group of authors. Reading the original research articles frequently helps to reduce the confusion arising from the research review literature.

Comparison of Two Treatments for Traumatic Stress: A Community-Based Study of EMDR and Prolonged Exposure


This pilot study compared the efficacy of two treatments for posttraumatic stress disorder (PTSD): Eye Movement Desensitization and Reprocessing (EMDR) and Prolonged Exposure (PE). Data were analyzed for 22 patients from a university-based clinic serving the outside community (predominantly rape and crime victims) who completed at least one active session of treatment after three preparatory sessions. Results showed both approaches produced a significant reduction in PTSD and depression symptoms, which were maintained at three-month follow-up. Successful treatment was faster with EMDR as a larger number of people (7 of 10) had a 70% reduction in PTSD symptoms after three active sessions compared to 2 of 12 with PE. EMDR appeared to be better tolerated as the dropout rate was significantly lower in those randomized to EMDR versus PE (0 of 10 vs. 3 of 10). However all patients who remained in treatment with PE had a reduction in PTSD scores. Finally, Subjective Units of Distress (SUDS) ratings decreased significantly during the initial session of EMDR, but changed little during PE. Postsession SUDS were significantly lower for EMDR than for PE. Suggestions for future research are discussed.
EMDR as an Integrative Psychotherapy Approach: Experts of Diverse Orientations Explore the Paradigm Prism


In this volume, luminaries and clinicians of a wide variety of psychological orientations have been asked to view eye movement desensitization and reprocessing (EMDR) and its clinical effects through the lenses of their paradigms. Each chapter contains the wisdom of not only a leader or seminal thinker but also a practicing clinician. This gives readers a range of theoretical and therapeutic insight not only into EMDR but also into the very process of change as well as the human condition. It is my hope that this volume will result in a greater appreciation of the integrative nature of EMDR and, more important, of the need for an integration of the field of psychology.

EMDR: A Putative Neurobiological Mechanism of Action


Numerous studies have provided evidence for the efficacy of eye movement desensitization and reprocessing therapy (EMDR) in the treatment of posttraumatic stress disorder (PTSD), including recent studies showing it to be more efficient than therapist-directed flooding. But few theoretical explanations of how EMDR might work have been offered. Shapiro, in her original description of EMDR, proposed that its directed eye movements mimic the saccades of rapid eye movement sleep (REM), but provided no clear explanation of how such mimicry might lead to clinical improvement. We now revisit her original proposal and present a complete model for how EMDR could lead to specific improvement in PTSD and related conditions. We propose that the repetitive redirecting of attention in EMDR induces a neurobiological state, similar to that of REM sleep, which is optimally configured to support the cortical integration of traumatic memories into general semantic networks. We suggest that this integration can then lead to a reduction in the strength of hippocampally mediated episodic memories of the traumatic event as well as the memories’ associated, amygdala-dependent, negative affect. Experimental data in support of this model are reviewed and possible tests of the model are suggested.

Practice Guideline for the Treatment of Patients with Acute Stress Disorder and Post-traumatic Stress Disorder

This practice guideline is based on available evidence and clinical consensus and offers recommendations to help psychiatrists in assessing and treating adult patients with acute stress disorder (ASD) and posttraumatic stress disorder (PTSD). This report is not intended to be construed or to serve as a standard of medical care. This practice guideline has been developed by psychiatrists who are in active clinical practice. The guideline has been extensively reviewed by members of the American Psychiatric Association (APA) as well as by representatives from related fields. The Practice Guideline for the Treatment of Patients With Acute Stress Disorder and Posttraumatic Stress Disorder consists of three parts (Parts A, B, and C) and many sections, not all of which will be equally useful for all readers. The following guide is designed to help readers find the sections that will be most useful to them. Part A, “Treatment Recommendations,” is published as a supplement to The American Journal of Psychiatry and contains general and specific treatment recommendations. Section I summarizes the key recommendations of the guideline and codes each recommendation according to the degree of clinical confidence with which the recommendation is made. Section II provides further discussion of the formulation and implementation of a treatment plan as it applies to the individual patient. Section III, “Specific Clinical Features Influencing the Treatment Plan,” discusses a range of clinical considerations that could alter the general recommendations discussed in Section I. Part B, “Background Information and Review of Available Evidence,” and Part C, “Future Research Needs,” are not included in The American Journal of Psychiatry supplement but are provided with Part A in the complete guideline, which is available in print format, in guideline compendiums, from American Psychiatric Publishing, Inc. (http://www.appi.org), and online through the American Psychiatric Association (http://www.psych.org). Part B provides an overview of ASD and PTSD, including general information on natural history, course, and epidemiology. It also provides a structured review and synthesis of the evidence that underlies the recommendations made in Part A. Part C draws from the previous sections and summarizes areas for which more research data are needed to guide clinical decisions.

### 6.2 Post Traumatic Growth

**A Correlational Test of the Relationship Between Posttraumatic Growth, Religion, and Cognitive Processing**


The present study examined the degree to which event related rumination, a quest orientation to religion, and religious involvement is related to posttraumatic growth. Fifty-four young adults, selected based on prescreening for experience of a traumatic event, completed a measure of event related ruminations, the Quest Scale, an index of religious participation, and the Posttraumatic Growth Inventory. The three subscales of the Quest Scale, the two groups of rumination items (soon after event/within past two weeks), and the index of religious participation were entered in a standard multiple regression with the total score of the Posttraumatic Growth Inventory as the dependent variable. The degree of rumination soon
after the event and the degree of openness to religious change were significantly related to Posttraumatic Growth. Congruent with theoretical predictions, more rumination soon after the event, and greater openness to religious change were related to more posttraumatic growth. Present findings offer some confirmation of theoretical predictions, and also offer clear direction for further research on the relationships of religion, rumination, and posttraumatic growth.

Exploring the Impact of Trauma on Therapists: Vicarious Resilience and Related Concepts in Training


An integrative training framework articulating multiple perspectives on the impact of trauma work is offered with a training/supervision exercise to address the complex and systemic relationships that affect therapists in both positive and negative manners. The concepts of vicarious trauma, vicarious resilience, compassion fatigue, resilience, posttraumatic growth, altruism born of suffering, and reciprocity are reviewed. The paper highlights the importance of vicarious resilience as a dimension of experience that counteracts the normally occurring fatiguing processes that trauma therapists experience.

Post-Traumatic Growth and Building Resilience


This article is an interview with Martin Seligman, director of the Positive Psychology Center at the University of Pennsylvania. He explains that human reaction to trauma is bell-curved: some people fall apart (anxiety, depression, PTSD), many are resilient, and others grow from trauma. He also describes 3 parts of Penn Resilience Plan: 1) mental toughness, 2) lead with strengths, and 3) social skills for leadership. People are more likely to grow from trauma if they know that post-traumatic growth is normal. Penn Resilience Plan can be adapted to serve a variety of audiences.

Posttraumatic Growth: Conceptual Foundations and Empirical Evidence


This article describes the concept of posttraumatic growth, its conceptual foundations, and supporting empirical evidence. Posttraumatic growth is the experience of positive change that occurs as a result of the struggle with highly challenging life crises. It is manifested in a variety of ways, including an increased appreciation for life in general, more meaningful interpersonal relationships, an increased sense of personal strength, changed priorities, and a richer existential
and spiritual life. Although the term is new, the idea that great good can come from great suffering is ancient. We propose a model for understanding the process of posttraumatic growth in which individual characteristics, support and disclosure, and more centrally, significant cognitive processing involving cognitive structures threatened or nullified by the traumatic events, play an important role. It is also suggested that posttraumatic growth mutually interacts with life wisdom and the development of the life narrative, and that it is an ongoing process, not a static outcome.

Post-Traumatic Stress’s Surprisingly Positive Flip Side


This is a news article for the New York Times which combines anecdotes from military personnel with studies in psychology to build a case for post traumatic growth. Post traumatic growth and distress are not mutually exclusive, rather it is a spectrum. Growth, takes time. Growth often follows or even co-exists with PTSD, depression, and anxiety.

The Core Beliefs Inventory: A Brief Measure of Disruption in the Assumptive World


Stressful events that disrupt the assumptive world can force people to make cognitive changes to accommodate these highly stressful experiences. As fundamental assumptions are reestablished, many people report changes and experiences that reflect posttraumatic growth (PTG). The present research describes the development of the Core Beliefs Inventory (CBI), a brief measure of disruption of the assumptive world developed for use in applied research and clinical settings. Three studies, two using college samples (Study 1, n=181 and Study 2, n=297 time 1; 85 time 2) and the third using leukemia patients (Study 3, n=70 time 1; 43 time 2), assessed the utility of the CBI to predict PTG in both cross-sectional and longitudinal designs. Relationships between the CBI and measures of self-reported PTG and well-being indicate that the CBI has construct validity, acceptable test-retest reliability, and very good internal consistency. The CBI may be a useful tool in investigating predictions about the effects of stressful experiences on an individual's assumptive world, PTG, and successful adaptation.

The Foundations of Posttraumatic Growth: New Considerations


In response to comments on our model of posttraumatic growth, we consider the validity of reports of posttraumatic growth, appropriate methodology to use to assess posttraumatic growth,
and its relation with other variables that appear to bear a resemblance to posttraumatic growth (e.g., well-being and psychological adjustment). The potentially important role of proximate and distal cultural factors is also addressed. Clinicians are encouraged to use interventions that facilitate posttraumatic growth with care, so as not to create expectations for posttraumatic growth in all trauma survivors, and to instead promote a respect for the difficulty of trauma recovery while allowing for the exploration of possibilities for various kinds of growth even in those who have suffered greatly.

The Upside of Trauma


“The Upside of Trauma” is an article published in Pacific Standard Magazine that utilizes anecdotes to explain the phenomenon of post-traumatic growth. Instead of developing PTSD or simply being resilient, many people experience PTG following trauma. Trauma is a social experience that can bring communities together if members perceive each other as having dignity and strong morals. PTG occurs in several areas: greater appreciation of life, changed priorities, more intimate personal relationships, greater personal strength, recognition of new possibilities, and spiritual growth.

Vicarious Post-Traumatic Growth in Psychotherapy


Previous investigations of the impact of trauma-related psychotherapy on clinicians have emphasized the hazardous nature of such work. The present study is the first exploration of clinicians’ perceptions of trauma work to investigate in depth the positive consequences of working with trauma survivors. A sample of 21 psychotherapists participated in a naturalistic interview exploring the impact of trauma work with a particular focus on (a) changes in memory systems and schemas about self and the world (the hallmarks of vicarious traumatization) and (b) perceived psychological growth. In addition to reporting several negative consequences, all of the clinicians in this sample described positive outcomes. These descriptions of positive sequelae are strikingly similar to reports of growth following directly experienced trauma and suggest that the potential benefits of working with trauma survivors may be significantly more powerful and far-reaching than the existing literature’s scant focus on positive sequelae would indicate.
7.0 Resilience and Crisis

Crime Victim Compensation: Program Directory 2002


Founded in 1977, the National Association of Crime Victim Compensation Boards promotes an exchange of information and ideas through a nationwide network of victim compensation programs. The Association advances better methods for serving crime victims through various training and technical assistance activities, helping its members establish sound administrative practices, achieve fiscal stability, and engage in effective outreach, communication and advocacy. The Association maintains an executive office near Washington, D. C., from which it works actively to provide support to its members and represent their interests.

Crisis Management Handbook


A crisis is any significant event with potentially severe consequences that requires immediate action or response. For the purposes of this Handbook the focus will be on crises of a regional or national scope including: accidents, natural disasters, civil unrest, political uprising, and environmental catastrophes. All of these crises have several aspects in common: 1) they can result in a disruption or early termination of service, or the closing of a Peace Corps program in country; 2) they usually cause significant emotional stress to the individuals involved, resulting in predictable cognitive, physical, and behavioral reaction; and 3) they can be managed. Crisis management is the process of preparing for, mitigating, responding to and recovering from a crisis situation. It requires (1) an organized plan to ensure the safety and survival of self and community, and (2) an understanding of the human response to stress. The core of the Handbook is presented in three chapters, titled Before, During, and After the Crisis. The first chapter, Before the Crisis, will provide strategies to help you: develop an emergency action plan (EAP), rehearse the plan, implement a warning system, and continue to test and update the plan. The second chapter, During the Crisis, will discuss how to: mobilize and activate the plan, coordinate with other agencies, and support your volunteers and crisis workers. The third chapter, After the Crisis, will give advice on how to: debrief all victims (direct, indirect, hidden), return to normal, continue counseling and support as needed, reassess hazards, and revise the emergency action plan.
Cultural Variation in Resilience as a Response to Traumatic Experience


Trauma is a universal experience for people living across the globe. However, the way in which trauma is interpreted, as well as the effects of trauma on an individual, are all influenced by the cultural lens through which the person views the event. Since rehabilitation counselors assist individuals from diverse cultures it is imperative that services are culturally informed. The need for rehabilitation counselors who are knowledgeable about cultural diversity is clearly stated in the CORE standards. This paper explores the variation in a resilient response to trauma within a cultural context. The diverse ways in which trauma is understood among different cultural orientations are contrasted, as well as subsequent resilient response to adversity. The implications of these findings for rehabilitation counselors are outlined, including therapeutic foundation, barriers to counseling and culturally appropriate treatment approaches.

Disaster Psychiatry: What Psychiatrists Need to Know


The most commonly reported symptoms after a disaster are sleeplessness; anxiety; depression; and constant, overwhelming bereavement. Posttraumatic stress disorder (PTSD), major depressive disorder (MDD), and substance abuse are more prevalent in communities in which traumatic events have occurred. Distress behaviors include increased smoking, chronic irritability, and even overwork. Disasters place additional stress on preexisting social friction along cultural, economic, or political lines. In general, people respond better to natural disasters than to man-made disasters. Additional individual risk factors include sex and age, actual and perceived level of support, and coping skills. There are also community risk factors, such as trauma experience, disaster response experience, level of social support, and community leadership. To better understand how psychiatric care can be integrated into the overall disaster response process, it is important to conceptualize the 3 phases of disaster: pre-event phase – the focus is on disaster education, mitigation, and preparedness; acute response phase – the acute or actual disaster response which could last hours to weeks depending on the nature of the event; and post-event phase – disaster recovery can last for months or years again depending on the severity of the event. Licensure and credentialing represent an important medicolegal challenge for psychiatrists who do disaster work. Know the requirements of the state where you will be doing the volunteer work. The American Psychiatric Association can provide information regarding licensure in disasters. Self-deployment to a disaster can add to chaos, prevent adequate distribution of health resources, and expose you to danger (e.g., aftershocks from earthquakes, exposure to chemical/biological/radiological events).
People perceive, judge, and behave differently in disasters and in a wide range of other difficult situations depending on their personal characteristics. The power to live, as captured by characteristics that are advantageous for survival in such situations, has thus far been modeled in arbitrary ways. Conceptualizing such characteristics in more objective ways may be helpful for systematic preparations for future disasters and life difficulties. Here, we attempted to identify the major factors of the power to live by summarizing the opinions of survivors of the 2011 Great East Japan Earthquake disaster. We conducted personal interviews with 78 survivors about their survival experiences and elicited their opinions about the power to live as relevant to those experiences. We then incorporated these opinions into a questionnaire that was completed by 1400 survivors. Factor analysis identified eight factors related to the power to live: leadership, problem solving, altruism, stubbornness, etiquette, emotional regulation, self-transcendence, and active well-being. All factors had sufficient internal construct validity, and six of them showed significant associations with one or more measures of survival success in the disaster, including immediate tsunami evacuation, problem solving in refugee situations, recovery during reconstruction, physical health, and mental health. Overall, the personal characteristics described by the eight factors largely overlap with those described in previous arbitrary models. Further research should investigate the domains, phases, and contexts in which each factor contributes to survival, address whether the factors are rooted in nature or in nurture, and explore their psychological or physiological bases.

Guidelines for Assisting Victims of Domestic Violence


Domestic violence is coercive behavior through the use of intimidating, threatening, harassing, or harmful behavior that occurs between two people in a marriage or other intimate relationship. The term domestic violence generally includes three forms of abuse: physical, sexual, and emotional or psychological. This abuse may also include financial or economic abuse. In some cases, the jealous and controlling behavior of the abuser includes stalking of and threatening behavior toward the victim and/or other family members. In most cases of domestic abuse, the female is the victim and the male is the perpetrator. However, in some cases the woman is considered the abuser; domestic violence may also occur within same sex relationships. Children living in an abusive home may also be victims of physical abuse; if they are not physically abused, they often suffer emotional consequences of witnessing violence. American victims of domestic violence overseas may seek help at any point in the abusive relationship, for example when the abuse is primarily emotional, shortly after the first violent incident, or after a pattern of...
physical abuse has been established over time. Consular officers are in a position to provide battered women with information about abuse, safety, and resources.

How to Use Your Brain in a Crisis


This article originates from Discovery Channel News and discusses how imagining stressful situations can help individuals survive them. Thinking about crises, especially violent ones, helps the brain respond more efficiently during an emergency. Self-esteem boosts performance under pressure, and practice under pressure boosts self-esteem. All kinds of self-defense may work, but the brain is mightier than the sword.

Launching a National Conversation on Disaster Resilience in America: Workshop Summary


With the increasing frequency of natural and human-induced disasters and the increasing magnitude of their consequences, a clear need exists for governments and communities to become more resilient. The National Research Council's 2012 report Disaster Resilience: A National Imperative addressed the importance of resilience, discussed different challenges and approaches for building resilience, and outlined steps for implementing resilience efforts in communities and within government. Launching a National Conversation on Disaster Resilience in America is a summary of a one-day event in November 2012 to formally launch a national conversation on resilience. Nationally-recognized experts in disaster resilience met to discuss developing a culture of resilience, implementing resilience, and understanding federal perspectives about resilience. This report includes a broad range of perspectives and experiences derived from many types of hazards and disasters in all parts of the country.

Loss, Trauma, and Human Resilience: Have We Underestimated the Human Capacity to Thrive After Extremely Aversive Events?


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.

Measuring Psychological Resilience to Disasters: Are Evidence-Based Indicators an Achievable Goal?


Despite rising interest on the concept of societal resilience and its measurement, little has been done to provide operational indicators. Importantly, an evidence-based approach to assess the suitability of indicators remains unexplored. Furthermore, few approaches that exist do not investigate indicators of psychological resilience, which is emerging as an important component of societal resilience to disasters. Disasters are events which overwhelm local capacities, often producing human losses, injury and damage to the affected communities. As climate hazards and disasters are likely to increase in the coming decades, strengthening the capacity of societies to withstand these shocks and recover quickly is vital. In this review, we search the Web of Knowledge to summarize the evidence on indicators of psychological resilience to disasters and provided a qualitative assessment of six selected studies. We find that an evidence-based approach using features from systematic reviews is useful to compile, select and assess the evidence and elucidate robust indicators. We conclude that strong social support received after a disaster is associated with an increased psychological resilience whereas a female gender is connected with a decrease in the likelihood of a resilient outcome. These results are consistent across disaster settings and cultures and are representative of approximately 13 million disaster-exposed civilians of adult age. An approach such as this that collects and evaluates evidence will allow indicators of resilience to be much more revealing and useful in the future. They will provide a robust basis to prioritize indicators to act upon through intersectoral policies and post-disaster public health interventions.

Mental Health and Resiliency Following 44 Months of Terrorism: A Survey of an Israeli National Representative Sample


Background: Israeli citizens have been exposed to intense and ongoing terrorism since September 2000. We previously studied the mental health impact of terrorism on the Israeli population (Bleich et al., 2002), however the long-term impact of ongoing terrorism has not yet
been examined. The present study evaluated the psychological sequelae of 44 months of terrorism in Israel, and sought to identify factors that may contribute to vulnerability and resilience. Methods: This was a telephone survey using strata sampling of 828 households, which reached a representative sample of 702 adult Israeli residents (84.8% contact rate). In total, 501 people (60.5%) agreed to participate. The methodology was similar to that of our previous study. Exposure to terrorism and other traumatic events, number of traumatic stress-related symptoms (TSRS), percentage of respondents with symptom criteria for post-traumatic stress disorder (PTSD), traumatic stress (TS) resiliency and feelings of depression, anxiety, optimism, sense of safety, and help-seeking were the main outcome measures. Results: In total, 56 participants (11.2%) were directly exposed to a terrorist incident, and 101 (20.2%) had family members or friends exposed. Respondents reported a mean ± SD of 5.0 ± 4.5 TSRS; 45 (9%) met symptom criteria for PTSD; and 72 (14.4%) were TS-resilient. There were 147 participants (29.5%) who felt depressed, 50 (10.4%) felt anxious, and almost half (235; 47%) felt life-threatening danger; 48 (9.7%) felt the need for professional help. Women and people of Arab ethnicity had more TSRS, more PTSD, and less TS resiliency. Injury following a life-threatening experience, a major stressful life event, and a major loss of income were associated with PTSD. Immigrant status, lower education, low sense of safety, low sense of social support, high societal distress, and injury following life-threatening experiences were associated with TSRS. TSRS did not increase with exposure severity. This study revealed less depression and functional impairment, similar rates of PTSD, increased help-seeking and poorer TSRS and TS resiliency than our initial study, 2 years previously. Discussion: The response of people in Israel to 4 years of terrorism is heterogeneous. Vulnerability factors change over time; Arab ethnicity, immigrant status and less education, not found to be risk factors in our previous study, were found in the present study to contribute to trauma-related distress. Prior experience of highly stressful events increases vulnerability to adverse psychological effects of terror.

Pandemic Influenza Preparedness: Adaptive Responses to an Evolving Challenge


In the United States, preparation for a potential influenza pandemic is receiving heightened media coverage and scrutiny. Scientific attention is focused on the potential for the current Southeastern Asian avian flu virus, influenza A (H5N1), to become a pandemic threat through genetic mutation and viral reassortment. It is imperative that we act now, as we face an evolving and advancing disease state with insufficient national preparation. Existing preparedness plans address laboratory and disease surveillance, community containment and border protection, and mass dispensing and vaccination strategies. However, little attention has been directed to identifying and managing psychological and social factors likely to influence human behavior during a pandemic. All of our health and medical strategies require people to behave in prescribed ways to avoid exposure, prevent infection, or halt disease transmission. This article provides timely expert panel recommendations for pandemic influenza response and recovery by addressing human behavior and adaptation.
Quality of Life, Vulnerability, and Resilience: A Qualitative Study of the Tsunami Impact on the Affected Population of Sri Lanka


Aim: This qualitative study is aimed at analyzing the impact of the 2004 tsunami on the Quality of Life of the Sri Lankan population. It focused on the factors that have contributed to an increase in the people's susceptibility to the impact of hazards - their vulnerability - as well as of the natural ability to cope of the populations affected - their resilience. Methodology: The study is based on the conduction of 10 Focus Group discussions and 18 In-depth Interviews, then analyzed through a qualitative analysis software. Results and Conclusions: The analysis shows that each factor involved in the interplay among the different processes that produced the changes in the affected people's quality of life is at the same time a damaged asset, a vulnerability factor and a resource to draw upon for coping. The complexity of this situation opens further speculation as to how disasters and relief interventions influence relationships and dynamics in society. This should thus be further investigated, together with the effects of individual and group trauma on society.

Resilience in the Face of Adversity: Protective Factors and Resistance to Psychiatric Disorder


It was suggested that the patterning of stresses, individual differences caused by both constitutional and experiential factors, compensating experiences outside the home, the development of self-esteem, the scope and range of available opportunities, an appropriate degree of structure and control, the availability of personal bonds and intimate relationships, and the acquisition of coping skills. Subsequent research has broadly confirmed that list of postulated variables, but has also begun to provide clarification of some of the possible mechanisms that may be involved. To begin with, a person's response to any stressor will be influenced by his appraisal of the situation and by his capacity to process the experience, attach meaning to it, and incorporate it into his belief system. Age-related susceptibilities are important in that connection: babies may be protected by their cognitive incapacities, but older children may be more resilient as a result of their great level of understanding. Secondly, it matters greatly how people deal with adversities and life stressors perhaps not so much in the particular coping strategy employed but in the fact that they do act and not simply react. Thirdly, people's ability to act positively is a function of their self-esteem and feelings of self-efficacy as much as of their range of problem-solving skills. Fourthly, such a cognitive set seems to be fostered by features as varied as secure stable affecional relationships and success, achievement, and positive experiences, as well as by temperamental attributes. Fifthly, such personal qualities seem to be operative as much in their
effects on interactions with and responses from other people, as in their role in regulating individual responses to life events. Sixthly, coping successfully with stress situations can be strengthening: throughout life, it is normal to have to meet challenges and overcome difficulties. The promotion of resilience does not lie in an avoidance of stress, but rather in encountering stress at a time and in a way that allows self-confidence and social competence to increase through mastery and appropriate responsibility. Lastly, all the evidence points to the importance of developmental links. Protection does not primarily lie in the buffering effect of some supportive factor, operating at one point in time, or even over a prolonged time. Rather, the quality of resilience resides in how people deal with life changes and what they do about their situations. That quality is influenced by early life experiences, by happening during later childhood and adolescence, and by circumstances in adult life. None of these is in itself determinative of later outcomes, but in combination they may serve to create a chain of indirect linkages that foster escape from adversity. It cannot be claimed that we have an adequate understanding of how this development takes place, but already the little we do know provides pointers to the elements likely to be necessary in effective prevention and therapeutic intervention.

Resilience in the Face of Potential Trauma


Until recently, resilience among adults exposed to potentially traumatic events was thought to occur rarely and in either pathological or exceptionally healthy individuals. Recent research indicates, however, that the most common reaction among adults exposed to such events is a relatively stable pattern of healthy functioning coupled with the enduring capacity for positive emotion and generative experiences. A surprising finding is that there is no single resilient type. Rather, there appear to be multiple and sometimes unexpected ways to be resilient, and sometimes resilience is achieved by means that are not fully adaptive under normal circumstances. For example, people who characteristically use self-enhancing biases often incur social liabilities but show resilient outcomes when confronted with extreme adversity. Directions for further research are considered.

Shut Happens


Getting your business ready to ‘get thru’ is partly about doing some planning and partly about ensuring you develop practices to become more resilient. This short guide will take you through steps that help you with both. Each area will have a what, a how, and a why, as well as links to further resources or help at the end of the guide. There are simple, practical easy things that will get you well on the way to surviving in a crisis and potentially thriving in the aftermath. The nine areas include: awareness of external environment, identify core business needs, getting back
together, backup your data, be clear about what your business is trying to achieve, cultivate open-mindedness and adaptability, leadership, staff engagement, and testing and keeping up to date.

The Debriefing “Controversy” and Crisis Intervention: A Review of Lexical and Substantive Issues


Despite a long and rich history as a specialty within applied mental health, crisis intervention has, within recent years, been the target of criticism. Singled out for specific criticism has been the intervention referred to as “debriefing.” Some authors have not only challenged its effectiveness but have raised the specter that it may cause significant harm. While superficially such arguments appear to have merit, closer scrutiny reveals an antiquated interpretation of even the most fundamental of terms and concepts inextricably intertwined with research based upon applications contrary to the most recent principles, prescriptions, and protocols regarding clinical use. A review of research based upon more extant formulations reveals many crisis intervention practices, including the Critical Incident Stress Debriefing model of "debriefing" and the Critical Incident Stress Management (CISM) model of crisis intervention to be highly clinically effective, indeed. This paper will review the terms and concepts which serve as the foundation of the field of crisis intervention, while subsequently reviewing key research investigations addressing its efficacy. It may be that outcome research directed toward assessing the effectiveness of crisis intervention can prosper from following trails blazed by psychotherapy researchers. The parallels seem striking. It may be that outcome research in crisis intervention (and "debriefing") needs to now focus upon "who" does crisis intervention, to "whom," and in "what specific situations," so as to maximize outcome associated with this clinically effective tool.

Vicarious Resilience: A New Concept in Work With Those Who Survive Trauma


This study explores the formulation of a new concept: vicarious resilience. It addresses the question of how psychotherapists who work with survivors of political violence or kidnapping are affected by their clients' stories of resilience. It focuses on the psychotherapists' interpretations of their clients' stories, and how they make sense of the impact that these stories have had on their lives. In semistructured interviews, 12 psychotherapists who work with victims of political violence and kidnapping were interviewed about their perceptions of their clients' overcoming of adversity. A phenomenological analysis of the transcripts was used to describe the themes that speak about the effects of witnessing how clients cope constructively with
adversity. These themes are discussed to advance the concept of vicarious resilience and how it can contribute to sustaining and empowering trauma therapists.

**What Predicts Psychological Resilience After Disaster? The Role of Demographics, Resources, and Life Stress**


A growing body of evidence suggests that most adults exposed to potentially traumatic events are resilient. However, research on the factors that may promote or deter adult resilience has been limited. This study examined patterns of association between resilience and various sociocontextual factors. The authors used data from a random-digit-dial phone survey (*N* = 2,752) conducted in the New York City area after the September 11, 2001, terrorist attack. Resilience was defined as having 1 or 0 posttraumatic stress disorder symptoms and as being associated with low levels of depression and substance use. Multivariate analyses indicated that the prevalence of resilience was uniquely predicted by participant gender, age, race/ethnicity, education, level of trauma exposure, income change, social support, frequency of chronic disease, and recent and past life stressors. Implications for future research and intervention are discussed.

**8.0 Resilience Leadership**

**Expatriate Managers and the Psychological Contract**


The authors investigate employer practices toward expatriate managers and how those practices relate to retention-relevant outcomes (e.g., organizational commitment, intent to quit, and intent to return early to a domestic assignment). The psychological contract is investigated as a mediator of this relationship. A model in which the psychological contract mediates the relationship between organizational practices and retention-relevant outcomes is empirically constructed. The authors also refine the construct of the psychological contract and report managers' experiences as expatriates.

**Exploring the Professional Journeys of Exemplary Expatriate Field Leaders in the International Aid Sector**

The international aid sector is a multi-billion dollar industry that has continued to grow in size, influence and complexity since the 1970s. The stakeholders are globalized and diverse, from elite UN politicians in New York and Geneva to malnourished infants in Somalia. This study attempts to focus on the professional development of one category of player in this multifaceted sector, that is the expatriate field leader employed international non-government organizations (INGO) and responsible for the implementation of projects in a cross-cultural environment. The study found that relationships, results, and grit were three foundational traits of exemplary expatriate filed leaders in the international aid sector. This collective case study takes a grounded theory approach to explore the professional journeys of 12 exemplary expatriate field practitioners in the international aid sector who work in Central Asia, Middle East, and North Africa with ten different INGOs and have an average of 12.5 years of field experience. The participants were nominated for the study by their supervisors or peers as being exemplary field leaders. The study purposes to gain insight into the professional journey of exemplary field leaders by examining their work-life experience from age 18 until present. Biographic narrative interviews were conducted and supplemented with professional development timelines to create the initial data set. The study provides insight into the processes of professional identity formation of expatriate aid workers and identifies seven events that shape their professional self-identity. These experiences consist of a variety of reflected appraisals and intrinsic rewards that validated or changed how the research participants saw themselves. Participants credited good relationships and seeing the results of their work as what keeps them going in spite of difficulties. On the other hand, the most difficult work experiences of the aid workers were not carjacking, riots, dust, heat, bugs, strange food, or low funding but relational conflicts and the grief associated with relational disappointments. Interpersonal relationships were core to both the best experiences and the most difficult experiences of the research participants. Gritty appears to be a better construct to describe exemplary field leaders than resilient. Grit is a trait defined as perseverance and passion for long-term goals. The research participants demonstrated grit in many situations, not least of which was in their commitment to learn the local language in-situ of crisis-affected people. The research participants believed that learning local languages was a key to establish and maintain meaningful relationships and cooperation with local people. The study also includes a discussion of an apparent incongruity in the international aid sector. On one hand the sector promotes the necessity of humanitarian professionals to establish and maintain collaborative relationships with crisis-affected people, but survey evidence suggests most workers in the humanitarian sector put a low priority on learning the languages of crisis-affected people while others do not have sufficient opportunity to learn the local languages because of the well-entrenched tradition of short-term employment contracts of 1-12 months and the practice of churning (rotating experienced staff from project to project). It appears that the current system of doing business in the humanitarian sector may actually obstruct professional competence and contribute to failed outcomes.

Growing Transformational Leaders: Exploring the Role of Personality Hardiness

Purpose: The purpose of this paper is to evaluate the role of personality hardiness in facilitating change or growth in transformational leadership of Norwegian Navy cadets following a stressful military training exercise. Design/methodology/approach: leadership styles were measured in cadets before and after an intensive leadership training exercise, and again six months later. Hardiness was measured near the end of the first academic year. Leader performance was measured with first year leader development grades. Findings: Repeated measures ANOVAS showed a sustained increase in transformational and transactional leadership following the exercise, and a decrease in the passive-avoidant style (management by exception – passive and laissez-faire). Research limitations/implications: This research was conducted with a relatively small group and findings may not generalize to other populations. Practical implications: These results suggest high hardy individuals have a greater readiness to make use of stressful training experiences as opportunities for developmental growth as leaders. Originality/value: This study is the first of its kind to explore the role of a key personality variable – hardiness – to facilitate positive benefit from a real-world training experience designed to develop better leadership capabilities. Further, it is one of few studies to identify factors contributing to the growth transformational leadership style. A strength of the study is that it was conducted in the context of a real-world leadership training activity.

Handling Traumatic Events


Many of us are ill-prepared to handle the traumatic events discussed in this handbook – suicides, assaults, threats, natural disasters, etc. And yet these events can and do occur in our workplace. They are events for which preparation helps, and this handbook tells us how to prepare. In addition to using this handbook for preparation purposes, it is an invaluable guide to follow should a traumatic event occur at your workplace. It is a good idea to keep it hand just in case. It will give you practical ideas on what to say to your employees and approaches to take to facilitate recovery. This manual includes: how to listen to someone who is hurting, recovering from the death of a co-worker, when tragedy strikes at work, supervising an employee with suicidal concerns, helping an employee recover from an assault, managing after a disaster, managing when the stress doesn’t go away, workplace violence and stopping it before it starts, when domestic violence comes to work, tips for coping with extreme stress, and a form for emergency phone numbers.

Leadership Behaviors and Subordinate Resilience


Utilizing a sample of 150 part-time MBA students, this study evaluated the relationship between leader behaviors and subordinate resilience. We proposed that the transformational leadership dimensions of Attributed Charisma, Idealized Influence, Inspirational Motivation, Intellectual
Stimulation, and Individualized Consideration, as well as the transactional leadership dimension of Contingent Reward would be positively associated with subordinate resilience. We also proposed that the transactional leadership dimensions of Management-by-Exception Active and Management-by-Exception Passive and the non-leadership dimension of Laissez-Faire leadership would not be positively associated with subordinate resilience. With the exception of Inspirational Motivation, all hypothesized relationships were supported. A post-hoc analysis of open-ended responses to the question "What helped you to deal with this situation?" indicated that participants who mentioned their leaders as a positive factor in dealing with the situation exhibited greater resilience than participants who did not. The implications of these results and suggestions for future research are discussed.

Leading in Times of Trauma


A leader’s ability to enable a compassionate response throughout a company directly affects the organizations ability to maintain high performance in difficult times. It fosters a company’s capacity to heal, to learn, to adapt, and to excel. Leaders can facilitate a compassionate institutional response at two levels: 1) a context for meaning – the leader creates an environment in which people can freely express and discuss the way they feel, which in turn helps them to make sense of their pain, seek or provide comfort, and imagine a more hopeful future; and 2) a context for action – the leader creates an environment in which those who experience or witness pain can find ways to alleviate their own and others suffering. You can start by setting an example for others by openly revealing your own humanity. When people know they can bring their pain to the office, they no longer have to expend energy trying to ignore or suppress it, and they can more easily and effectively get back to work. A seemingly simple but important aspect of demonstrating your humanity is just being present, physically, and emotionally. For a quick high-level check on your organization’s capacity for compassion, consider how it performs on the following four dimensions: 1) the scope of compassionate response refers to the breadth of resources provided to people in need, such as money, work flexibility, physical aid, and other people’s time and attention; 2) the scale of compassionate responses gauge the volume of resources, time, and attention that people who are suffering receive; 3) speed of response can vary widely as well; 4) specialization measures the degree to which the system customizes resources to the particular needs of an individual or a group in pain. Perhaps the most important step you can take is to model the behaviors you would like to see others demonstrate. When tragedy strikes, a company’s existing infrastructure (its formal and informal networks and routines) can be helpful in locating useful resources, generating ideas, coordinating groups that are not typically connected, and communicating to people what is happening and how the company is responding.

Management Practices for On-Site Consultants Lessons Learned from the Expatriate Experience

Over the past decade, research on two specific types of nontraditional work arrangements, expatriate employees and consultants, has increased. However, despite the plethora of research exploring the key factors associated with effective expatriation, few links have been made between the similarities in job attributes and experiences of consultants and expatriates. This article reviews the similarities between consultants and expatriates, including issues related to selection, socialization, learning orientation, role definition, family adjustment, career development, and repatriation. An examination of the management practices related to each of the key dimensions of expatriate assignments is made and lessons for consultants are offered.

Promoting Resilience


As the Foreign Service community has moved in the past decade toward a more expeditionary approach to diplomacy, personnel have been assigned to war zones and other dangerous areas. Beyond the risk to their lives, employees and family members sometimes face severe stress and trauma, and can sustain damage to their careers, self-respect, self-esteem, and relationships. The Transition Center at the Foreign Service Institute has developed a series of courses and ad hoc interventions designed to help individuals and groups become more resilient. Resilience is the attribute that allows people to endure unusual life circumstances and return to a normal equilibrium. Tactics that, in the short term, help one deal with stressful environments help increase resilience, including good sleep; healthy diet; aerobic exercise; positive mental attitude and maintaining networks of family, friends, and colleagues. Choose a career path that alternates higher-threat and/or more stressful assignments with less-demanding jobs. Jerry White, deputy assistant secretary in the Bureau of Conflict and Stabilization Operations, has developed five steps to overcoming a life crisis: 1) facing facts and accepting reality; 2) choosing to fully engage in restoring one’s life; 3) reaching out and maintaining personal social networks; 4) identifying and accomplishing goals; and 5) giving back to one’s community by participating in altruistic activities.

Resilience Through Mindful Leadership


We live in an era of globalization and rapid technological change that is creating volatility, uncertainty, chaos, and ambiguity. For institutions, the velocity of the business cycle and risks of the multi-polar global environment create instability. For individuals, the volatility creates more emotional ups and downs and can cause us to lose confidence. Amid such volatility, a reserve of mental and physical energy is required to be resilient. Resilience is the combination of heartiness, toughness, and buoyancy of spirit. The best way to become more resilient is to develop oneself into a calm, compassionate, and adaptable Mindful Leader. Meditation enables me to forget less important events and focus with clarity on significant issues. Other regular practices include prayer, journaling, intimate discussions and solitary exercises like jogging.
hiking, and swimming. the important thing is to have some form of introspective practice that enables you to slow down your mind and reflect on what is important.

Social and Organizational Influences on Psychological Hardiness: How Leaders Can Increase Stress Resilience


Today’s security forces must operate in environments of increasing complexity, uncertainty and change, a fact that has led to increased stress levels along with the challenge to adapt. For many people, such stressful conditions can lead to a range of health problems and performance decrements. But others remain healthy, showing resilience under stress. What accounts for such resilience? This paper focuses on psychological hardiness, a set of mental qualities that has been found to distinguish resilient from non-resilient people. Those high in psychological hardiness show greater commitment – the abiding sense that life is meaningful and worth living; control – the belief that one chooses and can influence his/her own future; and challenge – a perspective on change in life as something that is interesting and exciting. This paper begins with a brief discussion of the major stress sources in modern military and security operations, and the broad range of factors that can influence resilience in organizations. Next the concept of psychological hardiness is described, including theoretical background, representative research findings, and biological underpinnings. Finally, some strategies are suggested for how psychological hardiness can be built up in organizations, primarily through leader actions and policies. By focusing more attention on increasing psychological hardiness, security organizations can realize enhanced health and performance in the workforce, while also preventing many stress-related problems.

Sustainable Leadership Practices for Enhancing Business Resilience and Performance


Purpose: The purpose of this paper is to present an alternative leadership model to the prevailing shareholder-first approach that research, management experts and practice indicate can lead to higher performance and resilience of a firm.

Design/methodology/approach: This conceptual paper is based on published literature, empirical research, and observations conducted in firms worldwide. Finding: Avery and Bergsteiner's 23 principles differentiate sustainable or “honeybee” practices from shareholder-first or “locust” leadership. Sustainable practices are arranged in a pyramid with three levels of practices and five performance outcomes at the apex. A total of 14 foundation practices can be introduced immediately. At the next level in the pyramid, six higher-level practices emerge once the foundations are in place. Finally, three practices cover the key performance drivers of innovation, quality, and staff engagement – all of which end customers’ experience. Together the 23 practices influence five outcomes,
namely brand and reputation, customer satisfaction, operational finances, long-term shareholder value, and long-term value for multiple stakeholders. Practical implications: Given that research and practice show that operating on sustainable principles enhances business performance and resilience, executives are urged to adopt these practices over business-as-usual. If self-interest does not motivate this change, as it appears to have already done at Wal-Mart, then major stakeholders or legislators can be expected to force such changes in the future. Originality/value: This paper provides an answer to the question of whether there is there an alternative to the shareholder-first leadership model. Its response is: yes, a demonstrably effective alternative already operates among many successful enterprises around the world.

The Leadership Wheel: A Tool for Assessing and Developing Leadership


The Leadership Wheel is a concept inspired by two key tools for leadership development. The first of these tools is the State Department’s 10 Leadership and Management Principles (3 FAM1214). These Principles serve as a compass for all Department employees and their behavior regardless of rank or position and set an expectation to lead by example. The Leadership Wheel is also inspired by a leadership coaching tool known as “The Wheel of Life.” The Wheel of Life is used by certified professional leadership coaches around the world as a way to set a foundational understanding of a client’s overall level of satisfaction with diverse areas of life (e.g., career, health, finances, family, etc.). The tool is not a representation of how the individual is performing, but it serves as a current snapshot of one’s level of satisfaction in these different areas. In the Wheel of Life, individuals are asked by their coach to review the different sectors shown on the wheel and mark their overall level of satisfaction in the different areas on a scale from 1 to 10. Coaches often grant clients the option to modify the wheel (e.g., by separating family and friends into separate categories or substituting a category altogether). Coaches reflect with the client on where he or she stands on the overall levels and relative high and low ranking areas and uses this as a starting point on identifying areas that the client might want to work on with the coach. The definitions of coaching, consulting, mentoring, counseling (therapy), managing, and training are clarified.

The Productivity Paradox: How Sony Pictures Gets More Out of People by Demanding Less


Human beings don’t work like computers; they can’t operate at high speeds continuously, running multiple programs at once. People perform at their peak when they alternate between periods of intense focus and intermittent renewal. Employees can increase their effectiveness by practicing simple rituals that refuel their energy, such as taking a daily walk to get an emotional breather or turning off e-mail at prescribed times to they can concentrate. If companies allow and
encourage employees to create and stick to such rituals, they will be rewarded with a more engaged, productive, and focused workforce.

The Resilient Leader


Resilience is often described as a personal quality that predisposes individuals to bounce back in the face of loss. Resilient leaders take action that responds to new and ever-changing realities, even as they maintain the essential operations of the organizations they lead. Here are five signals that indicate that schools resilience is at risk: top leaders stop learning, people blame everything on the budge, leaders ignore critical indicators, too many initiatives drain people, and success goes uncelebrated. Practices of resilient leaders include: engaging in personal renewal, watching your mouth, staying optimistic, quickly blunting the impact of setbacks, cultivating networks before challenges hit, and seeing patterns – and using those insights for change.

What Makes a Leader?


What distinguishes great leaders from merely good ones? It isn’t IQ or a technical skill says Daniel Goleman. It’s emotional intelligence: a group of five skills that enable the best leaders to maximize their own and their followers’ performance. When senior managers at one company had a critical mass of EI capabilities, their division outperformed yearly earnings goals by 20%. The EI skills are: self-awareness – knowing one’s strengths, weaknesses, drives, values, and impact on others; self-regulation – controlling or redirecting disruptive impulses and mood; motivation – relishing achievement for its own sake; empathy – understanding other people’s emotional makeup; social skill – building rapport with others to move them in desired directions. We’re each born with certain levels of EI skills. But we can strengthen these abilities through persistence, practice, and feedback from colleagues or coaches.

8.1 Center for the Study of the Conduct of Diplomacy

Fostering Resilience: Lessons Learned from Nepal, Uganda, and Mexico


This Policy Implementation Review (PIR) examines U.S. efforts in Nepal, Uganda and Mexico before, during and after crisis events. These diverse case studies are intended to identify best practices and lessons learned in preparing for and responding to a range of crisis situations. They involve a humanitarian disaster following an earthquake in Nepal, political upheaval surrounding Uganda’s passage of bill to outlaw homosexuality and the murder of Consulate General Ciudad
Juarez staff and family members amid a drastic increase in drug-related violence. In analyzing these three case studies, this PIR will look at three key questions: 1) How was the Mission prepared to respond to adversity? 2) How did the Mission respond to the unexpected event? 3) Did the Mission accomplish its goals and build a stronger, more competent team? Best Practices included putting people first, communicating often, and making time and space. Put people first. Empowered staff members reflected the commitment of their leaders. They had the freedom and power to operate in the aftermath of the crises, when there was an urgent need for decisive action. Delegating authority and integrating local staff and families into mission readiness efforts expanded the number of capable team members who could support the mission and each other.

Communicate often. Articulating priorities and developing a shared vision gave individuals a clear sense of purpose and increased efficiencies in times of great stress and uncertainty. Leaders conveyed information on multiple occasions and sought confirmation that the message was understood in the way they intended. This investment lasts far beyond the crisis as people remember their experiences. Make time and space. Training, drills, town halls, award ceremonies and cultural events proved critical to success in all three case studies. Leaders created the space and set examples in their personal and professional lives. They also let their staff propose the activities that would be most useful. In doing so, Missions were poised to turn crises into opportunities to learn and grow. The missions in all three cases were traditionally led and staffed by career diplomats who had had access to similar training and professional development opportunities throughout their careers. All three cases took place in countries where insecurity, weak institutions and/or struggling economies make it more difficult for personnel to rely on habits and activities that build resilience at home. Key elements of tradecraft selected for analysis in this PIR are: Preparing for the unexpected; Valuing and empowering people; Adapting to change and uncertainty; and Messaging effectively.