

Metadata of the article that will be visualized in OnlineFirst

ArticleTitle	Spirituality and Resilience in Trauma Victims	
Journal Name	Journal of Religion and Health	
Corresponding Author	Family Name	Peres
	Particle	
	Given Name	Julio F. P.
	Suffix	
	Division	Neuroscience and Behavior, Institute of Psychology
	Organization	University of São Paulo
	Address	Rua Maestro Cardim 887, 01323-001, São Paulo, SP, Brazil
	Email	julioperes@yahoo.com
Author	Family Name	Moreira-Almeida
	Particle	
	Given Name	Alexander
	Suffix	
	Division	Department of Psychiatry
	Organization	University of São Paulo
	Address	São Paulo, Brazil
	Division	School of Medicine
	Organization	Federal University of Juiz de Fora
	Address	Juiz de Fora, Brazil
	Division	Department of Psychiatry and Behavioral Sciences
	Organization	Duke University Medical Center
	Address	Durham, NC, USA
	Division	Geriatric Research, Education and Clinical Center, Veterans Affairs Medical Center
	Organization	Duke University School of Medicine
	Address	Durham, NC, USA
	Email	
Author	Family Name	Nasello
	Particle	
	Given Name	Antonia Gladys
	Suffix	
	Division	Neuroscience and Behavior, Institute of Psychology
	Organization	University of São Paulo
	Address	Rua Maestro Cardim 887, 01323-001, São Paulo, SP, Brazil
	Email	
Author	Family Name	Koenig
	Particle	
	Given Name	Harold G.
	Suffix	
	Division	Department of Psychiatry and Behavioral Sciences
	Organization	Duke University Medical Center

Address	Durham, NC, USA
Division	Geriatric Research, Education and Clinical Center, Veterans Affairs Medical Center
Organization	Duke University School of Medicine
Address	Durham, NC, USA
Email	

Schedule	Received	25 October 2006
	Revised	
	Accepted	27 November 2006

Abstract The way people process stressors is critical in determining whether or not trauma will be experienced. Some clinical and neuroimaging findings suggest that posttraumatic stress disorder patients experience difficulty in synthesizing the traumatic experience in a comprehensive narrative. Religiousness and spirituality are strongly based on a personal quest for understanding of questions about life and meaning. Building narratives based on healthy perspectives may facilitate the integration of traumatic sensorial fragments in a new cognitive synthesis, thus working to decrease post-traumatic symptoms. Given the potential effects of spiritual and religious beliefs on coping with traumatic events, the study of the role of spirituality in fostering resilience in trauma survivors may advance our understanding of human adaptation to trauma.

Keywords (separated by '-') Religiousness - Spirituality - Resilience - Trauma - Stress - PTSD

Footnote Information

Journal: JORH
Article: 10943-9103



Author Query Form

Dear Author,

During the preparation of your manuscript for typesetting, some questions have arisen. These are listed below. Please check your typeset proof carefully and mark any corrections in the margin of the proof or compile them as a separate list. This form should then be returned with your marked proof/list of corrections to spr_corrections1@sps.co.in

Disk use

In some instances we may be unable to process the electronic file of your article and/or artwork. In that case we have, for efficiency reasons, proceeded by using the hard copy of your manuscript. If this is the case the reasons are indicated below:

- Disk damaged
- Incompatible file format
- LaTeX file for non-LaTeX journal
- Virus infected
- Discrepancies between electronic file and (peer-reviewed, therefore definitive) hard copy
- Other:

We have proceeded as follows:

- Manuscript scanned
- Manuscript keyed in
- Artwork scanned
- Files only partly used (parts processed differently:

Bibliography

If discrepancies were noted between the literature list and the text references, the following may apply:

- The references listed below were noted in the text but appear to be missing from your literature list. Please complete the list or remove the references from the text.

Uncited references: This section comprises references that occur in the reference list but not in the body of the text. Please position each reference in the text or delete it. Any reference not dealt with will be retained in this section.

Queries and/or remarks

Section/paragraph	Details required	Author's response
Body Matter	<i>Please note that the following reference are not included in ref list: Nutt and Malizia, 2004, Smith et al. (2000)</i>	
Ref list	<i>Please note the following references are not cited in text: Beck (2005); Kessler et al. (1995).</i> <i>Please update Moreira-Almeida et al. (2006).</i>	
	<i>Please check affiliations of all author.</i>	

Many thanks for your assistance

Page 1 of



Spirituality and Resilience in Trauma Victims

Julio F. P. Peres · Alexander Moreira-Almeida ·
Antonia Gladys Nasello · Harold G. Koenig

Received: 25 October 2006 / Accepted: 27 November 2006
© Blanton-Peale Institute 2006

1
2 **Abstract** The way people process stressors is critical in determining whether or not
3 trauma will be experienced. Some clinical and neuroimaging findings suggest that
4 posttraumatic stress disorder patients experience difficulty in synthesizing the tra-
5umatic experience in a comprehensive narrative. Religiousness and spirituality are
6 strongly based on a personal quest for understanding of questions about life and
7 meaning. Building narratives based on healthy perspectives may facilitate the inte-
8gration of traumatic sensorial fragments in a new cognitive synthesis, thus working to
9 decrease post-traumatic symptoms. Given the potential effects of spiritual and
10 religious beliefs on coping with traumatic events, the study of the role of spirituality
11 in fostering resilience in trauma survivors may advance our understanding of human
12 adaptation to trauma.

13 **Keywords** Religiousness · Spirituality · Resilience · Trauma · Stress · PTSD

J. F. P. Peres (✉) · A. G. Nasello
Neuroscience and Behavior, Institute of Psychology, University of São Paulo, Rua Maestro
Cardim 887, São Paulo, SP 01323-001, Brazil
e-mail: julioperes@yahoo.com

A. Moreira-Almeida
Department of Psychiatry, University of São Paulo, São Paulo, Brazil

A. Moreira-Almeida
School of Medicine, Federal University of Juiz de Fora, Juiz de Fora, Brazil

H. G. Koenig · A. Moreira-Almeida
Department of Psychiatry and Behavioral Sciences, Duke University Medical Center,
Durham, NC, USA

H. G. Koenig
Geriatric Research, Education and Clinical Center, Veterans Affairs Medical Center,
Duke University School of Medicine, Durham, NC, USA



14 Introduction

15 There is a wide range of cognitive and behavioral responses and outcomes among
16 trauma survivors. Researchers have shown a strong relationship between psycho-
17 logical trauma and the development of post-traumatic stress disorder (PTSD; Leskin,
18 Kaloupek, & Keane, 1998), simple phobia and social phobia (Magee, Eaton, Witt-
19 chen, McGonagle, & Kessler, 1996), borderline personality disorder (Van Der Kolk,
20 Hostetler, Herron, & Fidler, 1994), somatoform disorder (Lamprecht & Sack, 2002),
21 dissociative disorders (Ross et al., 1991), eating disorders (Tobin, Molteni, & Elin
22 1995), self-mutilation, suicide, high-risk behaviors, substance abuse (Marshall et al.,
23 2001; Schinagle, 2002), and major depression (Neria, Bromet, & Marshall, 2002).

24 Although traumatic memories are mainly discussed in literature associated with
25 PTSD, large numbers of traumatized people do not meet DSM-IV criteria for PTSD
26 and other psychiatric disorders (Weiss et al., 1992). According to US studies, the
27 lifetime prevalence of traumatic events capable of producing PTSD in susceptible
28 subjects may reach 50–90%, but the prevalence of PTSD in the general population is
29 about 8% (Vieweg et al., 2006). These data show that stressors in themselves, in
30 most cases, do not lead to manifestation of psychological trauma. A high-quality
31 study based on a large community sample found that the risk of PTSD after a
32 traumatic event was around 9% on average; the highest risk of PTSD was associated
33 with torture or kidnapping (50.8%) (Breslau et al., 1998).

34 Several studies have shown that many people cope with traumatic or stressor
35 events on the basis of their religious beliefs. A nationwide survey of stress reactions
36 in the U.S. after September 11th found that turning to religion (prayer, religion or
37 spiritual feelings) was the second most common way of coping (90%), after talking
38 with others (98%) (Schuster et al., 2001). Religious coping is also frequent in cases
39 of severe disease (Koenig, Larson, & Larson, 2001). In fact, many victims of stressful
40 situations seek support from religion, professionals, literature, or from friends, while
41 others emphasize silence, isolation, collapse and/or victimization (Bonanno, 2004;
42 Spouse, 1999). Although there are significant qualitative differences in how trauma-
43 tized and non-traumatized people process and categorize their experiences
44 (McFarlane, Yehuda, & Clark, 2002), there are basic questions that have yet to be
45 answered. Why do 90% of trauma survivors not develop PTSD? What predicts the
46 development of positive outcomes? Could these factors be helpful in treating psy-
47 chological trauma patients?

48 Our aim in this article is to bring together contributions from neurosciences, and
49 clinical and epidemiological investigations that may provide insights into resilience
50 in trauma survivors, specifically the potential role of spirituality.

51 Psychological Trauma and Neuroscience

52 Attempts to understand responses to trauma have turned to the contribution of
53 personality factors. The way people process stressors is critical in determining
54 whether or not trauma will be experienced (Peres, Mercante, & Nasello, 2005).
55 Neuroscience suggests that rather than memories, the brain stores traces of infor-
56 mation that are subsequently used to create memories, but do not always express a
57 completely factual picture of a past experience. Whenever an event is retrieved, it



58 may undergo cognitive and emotional change. Moreover, neuroimaging studies of
59 traumatic memories in PTSD have repeatedly shown reduced volume and activation
60 of the hippocampus and left hemisphere. The structures showing low activation were
61 the medial pre-frontal cortex, anterior cingulate, pre-frontal dorso-lateral cortex,
62 hippocampus and Broca's area. The areas with highest activation were the para-
63 hippocampal gyrus and the posterior cingulate, as well as the amygdala in specific
64 symptom provoking paradigms (Bremner, 2002; Hull, 2002).

65 Smaller hippocampal volume and its decreased activation in PTSD individuals
66 may be at least partly involved in the continuous dissociation and erroneous inter-
67 pretation of information in relation to negative events (Gilbertson et al., 2002). It is
68 believed that the hippocampus "creates" a cognitive map so that events may be
69 categorized and data connected with other autobiographical information, thus
70 playing a fundamental role in the process of synthesizing, integrating, learning, and
71 evaluating experiences (Hull, 2002). Blockage of the integrative function of the
72 hippocampus may favor fragmentation of traumatic experiences, corporal sensa-
73 tions, odors, and sounds that seem strange and isolated from other experiences in life
74 (van der Kolk, Burbridge, & Suzuki, 1997). Most PTSD research with activation
75 paradigms showed accentuated activity of the amygdala when processing negative
76 emotions such as fear (Hull, 2002). Decreased activity in the pre-frontal and anterior
77 cingulate cortex was a concomitant observation in many of these studies. The pre-
78 frontal cortex in primates and humans is involved in cognitive syntheses through
79 robust projections to the amygdala (emotional memories), medial-temporal and
80 thalamic (long-term memory) structures (Barbas, 2000). The lower level of pre-
81 frontal cortical activity involved in reduced negative feedback from amygdala
82 activity may obstruct processing of cognitive syntheses, as well as represent a
83 defective extinction of responses to fear and emotional deregulation in PTSD (Nutt
84 & Malizia, 2004).

85 Functional studies also show a significant decrease in activity in Broca's area
86 related to translation of personal experiences into a communicable language. This
87 finding concurs with the difficulty PTSD individuals experience in synthesizing and
88 assimilating a traumatic event to produce a structured narrative. Neuroimaging
89 researches support the non-verbal nature of traumatic memories in PTSD volunteers
90 and a more narrative-type expression of traumatic memories in non-PTSD volun-
91 teers (van der Kolk et al., 1997; Lanius et al., 2004). The narrative structure of
92 memory is an indicator of pre-frontal dependent cognitive processing (Lanius et al.,
93 2004). Building new narratives based on healthy perceptions may facilitate the
94 integration of traumatic mnemonic traces and sensorial fragments in a new cognitive
95 synthesis, thus working to decrease symptoms of PTSD (Peres et al., 2005).

96 Resilience

97 Trauma researchers have pointed to the importance of individual differences in
98 resilience—the ability to go through difficulties and regain satisfactory quality of
99 life—and vulnerability as key determinants of the intensity and duration of trauma-
100 related symptoms. Some personality traits act as "protectors" of individuals exposed
101 to extreme stress (Bonnano, 2004). Based on observations of survivors from Nazi
102 concentration camps who were able to maintain good health and lead a good life



103 despite all they had experienced, Antonovsk developed the concept of “sense of
104 coherence” (SOC). SOC is based on three components: *comprehensibility* (life and
105 its events make sense in cognitive terms, ability to comprehend the situation as
106 a whole), *meaningfulness* (life makes sense emotionally, problems are seen as
107 challenges rather than burdens), and *manageability* (ability to use available
108 resources to deal with life events).

109 The SOC concept attempts to provide some pointers as to why people stay well
110 despite stressful situations (Lindstrom & Eriksson, 2005), and although it has been
111 in use for less than 30 years, it has been investigated in over 500 studies. A recent
112 systematic review found that SOC was strongly related to better-perceived health,
113 particularly mental health. People with high SOC seem to be more resilient under
114 stress (Eriksson & Lindstrom, 2006). A decisive factor in developing resilience may
115 be the way individuals perceive and process an experience. People who develop
116 interpretative patterns of coping and attempt to modify the present positively may
117 find it easier to overcome psychological traumas. Whereas patterns involving self-
118 pity, abandonment, self-victimization and self-depreciation may intensify the nega-
119 tive emotions related to a traumatic memory and exacerbate psychological suffering
120 (Peres et al., 2005).

121 Therefore an important point for psychotherapy may be to sensitize reinforcement
122 of a traumatized individual’s resilient traits by having patients’ access reper-
123 toires of such attitudes from their own history prior to trauma, or from other
124 individuals who learned from traumatic experiences and developed on that basis.
125 Spirituality and religiosity may also be cornerstones in reframing perception and
126 constituting behavior. Good examples or precedents aligned with resilient attitudes,
127 such as positive learning from experience, self-confidence and calmness in dealing
128 with difficulties, may be harnessed for psychotherapy of trauma victims.

129 Hope and Spirituality

130 Hopelessness is a word often used by PTSD individuals to express their emotional
131 state (Scher & Resick, 2005). Studies suggest that an increase in hope and decrease
132 in despair and hopelessness may be critically important factors for better health and
133 longevity. A prospective study of coronary heart disease (CHD) and optimism found
134 that “a more optimistic explanatory style, or viewing the glass as half-full, lowers
135 the risk of CHD in older men” (Kubzansky, Sparrow, Vokonas, & Kawachi, 2001,
136 pp. 913–914) and discussed other research showing a link “between pessimism,
137 hopelessness, and risk of heart disease” (Kubzansky et al., 2001, p. 910). A 30-year
138 study reported that “a pessimistic explanatory style is significantly associated with
139 mortality” (Maruta, Colligan, Malinchoc, & Offord, 2000, p. 140).

140 When people become traumatized they often look for a new sense of meaning and
141 purpose in their life. Spiritual or religious beliefs and practices are important com-
142 ponents of almost all cultures. Religiosity and spirituality are strongly based on a
143 personal quest to understand ultimate questions about life, meaning, and relation-
144 ships with the sacred or transcendent (Moreira-Almeida & Koenig, 2006). Religious
145 frameworks and practices may have an important influence on how people interpret
146 and cope with traumatic events.

147 Hundreds of studies have investigated the relationship between religious
148 involvement and mental health. In most cases, they have found that higher levels of



149 religious involvement are associated with greater well being and mental health
150 (Moreira-Almeida, Lotufo Neto, & Koenig, 2006). Positive religious coping has been
151 associated not only with better physical and mental outcomes in medically ill pa-
152 tients (Koenig et al., 2001; Pargament, Koenig, Tarakeshwar, & Hahn, 2004), but
153 also among trauma survivors such as people affected by large-scale floods (Smith
154 et al., 2000).

155 However, religious coping is not always related to better outcomes. Negative
156 religious coping (“wondered whether God had abandoned me”, “questioned God’s
157 love for me”, and “decided the devil made this happen”) was associated with in-
158 creased mortality in a 2-year longitudinal study of medically ill elderly inpatients,
159 even after controlling for demographic, physical health, and mental health variables
160 (Pargament, Koenig, Tarakeshwar, & Hahn, 2001).

161 A recent meta-analysis of 49 studies involving a total of 13,512 subjects investi-
162 gated the association between religious coping and psychological adjustment to
163 stress (Ano & Vasconcelles, 2005). Positive religious coping had a moderate positive
164 relationship ($r = .33$) with positive psychological adjustment and a modest inverse
165 correlation ($r = -.12$) with negative psychological adjustment to stress. On the other
166 hand, negative religious coping showed a positive correlation ($r = .22$) with negative
167 psychological adjustment. The authors stated that “different types of situations may
168 have different implications for coping and psychological adjustment to stress.”
169 However, this review did not provide descriptions of the types of the stressful sit-
170 uations involved. There is a need for more far-reaching research into the impact of
171 the different forms of religious coping on adjustment to traumatic experiences.

172 A study that underscored possible connection between religion and trauma in-
173 volved 1385 war veterans being treated for PTSD. Experiences of killing others and
174 failing to prevent the deaths of fellow soldiers weakened their religious faith, and
175 contributed independently as a significant predictor of more extensive use of VA
176 mental health services. Severity of PTSD symptoms and social functioning were not
177 as strongly predictive of continued use of mental health services as weakened reli-
178 gious faith. The authors concluded, “veterans’ pursuit of mental health services
179 appears to be driven more by their guilt and the weakening of their religious faith
180 than by the severity of their PTSD symptoms or their deficits in social functioning.”
181 The authors raised the possibility “that a primary motivation of veterans’ continu-
182 ing pursuit of treatment may be their search for a meaning and purpose to their tra-
183 umatic experiences.” This suggests that spirituality may be more central to the
184 treatment of PTSD than usually thought (Fontana and Rosenheck, 2004). On
185 reviewing 11 empirical studies of associations between religion, spirituality, and
186 posttraumatic growth, Shaw and colleagues (2005) reported three main findings: (i)
187 religion and spirituality are usually, although not always, beneficial in dealing with
188 the aftermath of trauma, (ii) traumatic experiences may lead to a deepening of
189 religiousness or spirituality, and (iii) positive religious coping, religious openness,
190 readiness to face existential questions, religious participation, and intrinsic reli-
191 giousness are typically associated with posttraumatic growth.

192 Pargament (1997) proposed that religious coping may have something special to
193 offer. “It may uniquely equip individuals to respond to situations in which they come
194 face-to-face with the limits of human power and control and are confronted with
195 their vulnerability and finitude”. Religious beliefs and practices may reduce loss of
196 control and helplessness, provide a cognitive framework that can decrease suffering,
197 and strengthen one’s purpose and meaning in the face of trauma. Religion can also



198 provide a worldview that helps give purpose and meaning to suffering, besides hope
199 and motivation.

200 The concept of religious coping involves several cognitive aspects. Examples of
201 positive religious coping include benevolent reappraisal (seeking a lesson from God
202 in the event); seeking spiritual support (searching for comfort and reassurance
203 through God's love and care); active religious surrender (doing what one can and
204 then putting the rest in God's hands); seeking spiritual connection (thinking about
205 how life is part of a larger spiritual force), and seeking religious direction (prayed to
206 find a new reason to live) (Pargament et al., 2004). A religious/spiritual belief sys-
207 tem, by helping to interpret life events and giving them meaning and coherence, may
208 contribute to the psychological integration of traumatic experiences (Koenig, 2006).
209 Although people's religious and spiritual beliefs may be important for thriving and
210 growing in the wake of trauma, therapists have no agenda for promoting any par-
211 ticular belief system. On the other hand, therapists who work with severely trau-
212 matized cases need to be comfortable working with clients who raise existential and
213 spiritual issues (Shaw et al., 2005). Since exploring religious and spiritual beliefs can
214 be useful (Sparr & Ferguson, 2000), therapists need to be respectful of these beliefs,
215 whether or not they share them, while accepting the client's reality (Shafranske,
216 1996). Furthermore, mental health professionals must be aware that as belief
217 systems, their reality is beyond the scope of scientific enquiry (Shaw et al., 2005).

218 As discussed previously, neurofunctional studies suggest that psychological inte-
219 gration through a structured narrative seems to be a key factor in resilience to
220 traumatic events. Future studies need to investigate the clinical and neurofunctional
221 implications of these cognitive aspects of religious coping. Moreover, in addition to
222 the cognitive dimension, religiousness may also help coping through social support,
223 providing role models for suffering, and supporting healthy behaviors (ex: discour-
224 aging the use of alcohol and drugs) (Koenig, 2006; Koenig et al., 2001). Hence,
225 Longitudinal research designs are critical for future research to clarify the associa-
226 tion between religion, spirituality, and posttraumatic growth.

227 There are multiple and sometimes unexpected pathways to resilience (Bonanno,
228 2004). Since hopelessness is a risk factor for PTSD as well as heightened vulnera-
229 bility and helplessness (Scher & Resick, 2005), a reasonable assumption would be
230 that the sense of holding and supporting may protect individuals exposed to trau-
231 matic events. Given the major impact of traumatic events, the increasing recognition
232 of resilience factors and the potential effects of spiritual and religious beliefs on
233 coping behavior, the study of the role of spirituality in fostering resilience in trauma
234 survivors may advance our understanding of human adaptation to trauma.

235 **Acknowledgment** Dr. Moreira-Almeida is supported by a post-doctoral fellowship provided by
236 HOJE—Hospital João Evangelista, Brazil.

237 References

- 238 Ano, G. G., & Vasconcelles, E. B. (2005). Religious coping and psychological adjustment to stress: A
239 meta-analysis. *Journal of Clinical Psychology, 61*(4), 461–480.
240 Barbas, H. (2000). Connections underlying the synthesis of cognition, memory, and emotion in
241 primate prefrontal cortices. *Brain Research Bulletin, 52*(5), 319–330.
242 Beck, A. T. (2005). The current state of cognitive therapy: A 40-year retrospective. *Archives of*
243 *General Psychiatry, 62*(9):953–959.



- 244 Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human
245 capacity to thrive after extremely aversive events? *The American Psychologist*, 59, 20–28.
- 246 Bremner, J. D. (2002). Neuroimaging studies in post-traumatic stress disorder. *Current Psychiatry*
247 *Reports*, 4, 254–263.
- 248 Breslau, N., Kessler, R. C., Chilcoat, H. D., Schultz, L. R., Davis, G. C., & Andreski, P. (1998).
249 Trauma and posttraumatic stress disorder in the community: The 1996 Detroit area survey of
250 trauma. *Archives of General Psychiatry*, 55(7), 626–632.
- 251 Eriksson, M., & Lindstrom, B. (2006). Antonovsky's sense of coherence scale and the relation with
252 health: a systematic review. *Journal of Epidemiology and Community Health*, 60(5), 376–381.
- 253 Fontana, A., & Rosenheck, R. (2004). Trauma, change in strength of religious faith, and mental
254 health service use among veterans treated for PTSD. *The Journal of Nervous and Mental Disease*
255 192(9), 579–584.
- 256 Gilbertson, M. W., Shenton, M. E., Ciszewski, A., Kasai, K., Lasko, N. B., Orr, S. P., & Pitman, R. K.
257 (2002). Smaller hippocampal volume predicts pathologic vulnerability to psychological trauma.
258 *Nature Neuroscience*, 5(11), 1242–1247.
- 259 Hull, A. M. (2002). Neuroimaging findings in post-traumatic stress disorder. Systematic review.
260 *British Journal of Psychiatry*, 181, 102–110.
- 261 Kessler, R. C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C. B. (1995). Posttraumatic stress
262 disorder in the National Comorbidity Survey. *Archives of General Psychiatry*, 52, 1048–1460.
- 263 Koenig, H. G., Larson, D. B., & Larson, S. S. (2001). Religion and coping with serious medical
264 illness. *The Annals of pharmacotherapy*, 35(3), 352–359.
- 265 Koenig, H. G. (2006) *In the wake of disaster: Religious responses to terrorism and catastrophe*.
266 Philadelphia: Templeton Foundation Press.
- 267 Kubzansky, L. D., Sparrow, D., Vokonas, P., & Kawachi, I. (2001). Is the glass half empty or half
268 full? A prospective study of optimism and coronary heart disease in the Normative Aging Study.
269 *Psychosomatic Medicine*, 63, 910–916.
- 270 Lamprecht, F., & Sack, M. (2002). Posttraumatic stress disorder revisited. *Psychosomatic Medicine*,
271 64(2), 222–237.
- 272 Lanius, R. A., Williamson, P. C., Densmore, M., Boksman, K., Neufeld, R. W., Gati, J. S., & Menon,
273 R. S. (2004). The nature of traumatic memories: A 4-T FMRI functional connectivity analysis.
274 *American Journal of Psychiatry*, 161(1), 36–44.
- 275 Leskin, G. A., Kaloupek, D. G., & Keane, T. M. (1998). Treatment for traumatic memories: Review
276 and recommendations. *Clinical Psychology Review*, 18, 983–1001.
- 277 Lindstrom, B., & Eriksson, M. (2005). Salutogenesis. *Journal of Epidemiology and Community*
278 *Health*, 59(6), 440–442.
- 279 Magee, W. J., Eaton, W. W., Wittchen, H. U., McGonagle, K. A., & Kessler, R. C. (1996). Ago-
280 raphobia, simple phobia, and social phobia in the National Comorbidity Survey. *Archives of*
281 *General Psychiatry*, 53, 159–168.
- 282 Marshall, R. D., Olfson, M., Hellman, F., Blanco, C., Guardino, M., & Struening, E. L. (2001).
283 Comorbidity, impairment, and suicidality in subthreshold PTSD. *American Journal of Psychi-*
284 *atry*, 158, 1467–1473.
- 285 Maruta, T., Colligan, R. C., Malinchoc, M., & Offord, K. P. (2000). Optimists vs. pessimists: Survival
286 rate among medical patients over a 30-year period. *Mayo Clinic Proceedings*, 75, 140–143.
- 287 McFarlane, A. C., Yehuda, R., & Clark, C. R. (2002). Biologic models of traumatic memories and
288 post-traumatic stress disorder. The role of neural networks. *Psychiatric Clinics of North America*,
289 25(2), 253–270.
- 290 Moreira-Almeida, A., & Koenig, H. G. (2006). Retaining the meaning of the words religiousness and
291 spirituality. *Social Science & Medicine*, 63(4), 840–845.
- 292 Moreira-Almeida, A., Lotufo Neto, F., & Koenig, H. G. (2006). Religiousness and mental health: A
293 review. *Revista Brasileira de Psiquiatria*, 28(3), in press.
- 294 Neria, Y., Bromet, E. J., & Marshall, R. (2002). The relationship between trauma exposure, post-
295 traumatic stress disorder (PTSD) and depression. *Psychological Medicine*, 32, 1479–1480; author
296 reply 1480–1483.
- 297 Pargament, K. I., Koenig, H. G., Tarakeshwar, N., & Hahn, J. (2004) Religious coping methods as
298 predictors of psychological, physical and spiritual outcomes among medically ill elderly patients:
299 A two-year longitudinal study. *Journal of Health Psychology*, 9(6), 713–730.
- 300 Pargament, K. I., Koenig, H. G., Tarakeshwar, N., & Hahn, J. (2001). Religious struggle as a
301 predictor of mortality among medically ill elderly patients: A 2-year longitudinal study. *Archives*
302 *of Internal Medicine*, 161(15), 1881–1885.



- 303 Pargament, K. I. (1997). *The psychology of religion and coping: Theory, research, and practice*. New
304 York: Guilford Press.
- 305 Peres, J. F. P., Mercante, J. P. P., & Nasello, A. G. (2005) Psychological dynamics affecting traumatic
306 memories: Implications in psychotherapy. *Psychology and Psychotherapy: Theory, Research and*
307 *Practice*, 78, 431–447.
- 308 Ross, C. A., Miller, S. D., Bjornson, L., Reagor, P., Fraser, G. A., & Anderson, G. (1991). Abuse
309 histories in 102 cases of multiple personality disorder. *The Journal of Clinical Psychiatry*, 36, 97–
310 101.
- 311 Scher, C. D., & Resick, P. A. (2005). Hopelessness as a risk factor for post-traumatic stress disorder
312 symptoms among interpersonal violence survivors. *Cognitive behaviour therapy*, 34(2), 99–107.
- 313 Schinagle, M. (2002). Recurrent suicide attempts, self-mutilation, and binge/purge behavior: A case
314 report. *Harvard Review of Psychiatry*, 10, 353–356.
- 315 Schuster, M. A., Stein, B. D., Jaycox, L., Collins, R. L., Marshall, G. N., Elliott, M. N., Zhou, A. J.,
316 Kanouse, D. E., Morrison, J. L., & Berry, S. H. (2001). A national survey of stress reactions after
317 the September 11, 2001, terrorist attacks. *The New England Journal of Medicine*, 345(20), 1507–
318 1512.
- 319 Shafranske, E. P. (Ed.) (1996). *Religion and the clinical practice of psychology*. Washington, D.C.:
320 American Psychological Association.
- 321 Shaw, A., Joseph, S., & Linley, P. A. (2005). Religion, spirituality, and posttraumatic growth: A
322 systematic review. *Mental Health, Religion & Culture*, 8(1), 1–11.
- 323 Sparr L. F., & Fergusson J. F. (2000). Moral and spiritual issues following traumatization. In J. K.
324 Boehnlein (Ed.), *Psychiatry and religion: The convergence of mind and spirit* (pp. 109–123).
325 Washington, D.C.: American Psychiatric Publishing, Inc.
- 326 Spouse, L. (1999). The trauma of being a refugee. *Medicine, conflict, and survival*, 15, 394–403.
- 327 Tobin, D. L., Molteni, A. L., & Elin, M. R. (1995). Early trauma, dissociation, and late onset in the
328 eating disorders. *The International Journal of Eating Disorders*, 17, 305–308.
- 329 Van Der Kolk, B. A., Burbridge, J. A. & Suzuki, J. (1997). The psychobiology of traumatic memory:
330 Clinical implications of neuroimaging studies. *Annals of the New York Academy of Sciences*, 821,
331 98–113.
- 332 Van Der Kolk, B. A., Hostetler, A., Herron, N., & Fisler, R. E. (1994). Trauma and the development
333 of borderline personality disorder. *Psychiatric Clinics of North America*, 17, 715–730.
- 334 Vieweg, W. V., Julius, D. A., Fernandez, A., Beatty-Brooks, M., Hetteema, J. M., & Pandurangi, A.
335 K. (2006). Posttraumatic stress disorder: Clinical features, pathophysiology, and treatment.
336 *American Journal of Medicine*, 119(5), 383–390.
- 337 Weiss, D. S., Marmar, C. R., Schlenger, W. E., Fairbank, J. A., Jordan, B. K., Hough, R. L., & Kulka,
338 R. A. (1992). The prevalence of lifetime and partial stress disorder in Vietnam Theater veterans.
339 *Journal of Traumatic Stress*, 5, 365–376.
- 340