“Mindfulness-Based Cognitive Therapy: A Potential Method for Prevention and Treatment of Vicarious Trauma, Secondary Traumatic Stress, Compassion Fatigue, and Profession Burnout in the Helping Professions”

Crystal F. Nichols

Psychology

University of Montevallo

The purpose of this research is to review the research literature on the experience of Secondary Traumatic Stress (STS), Compassion Fatigue (CF), Vicarious Trauma (VT), Professional Burnout (PB) and of current research into the growing study of mindfulness-based interventions, specifically, Mindfulness-Based Cognitive Therapy (MBCT). Although effects such as vicarious trauma and compassion fatigue have been documented in those dealing directly with persons exposed to traumatic experiences, it can often go untreated due to the lack of formal classification for diagnosis in the *Diagnostic and Statistical Manual of Mental Disorders, 4th. Edition* (DSM-IV).[1]

Professionally, clinicians and others in the helping occupations often deal with clients who have personally experienced a traumatic event. While there is much research on the diagnosis and treatment of those suffering with Post Traumatic Stress Disorder (PTSD) and other trauma-based complications, gaps in the literature exist on possible solutions in diagnosis and treatment of professionals suffering from STS and compassion fatigue, that often results from clinical practice with victims of primary trauma. Treatments such as Cognitive Behavioral Therapy (CBT) and meditation techniques have been suggested sparsely in the literature, however the literature also suggests that the actual implementation of formal programs for the prevention and treatment of cognitive and behavioral symptoms in helping professionals is lacking. In 2007, the *Clinical Social Work Journal*[2] devoted a special issue to the problem of compassion fatigue, with many of the articles ending with experts in the field pleading that more research, education, and practice innovation be devoted to the subject of compassion fatigue.

With projections from the Bureau of Labor Statistics suggesting average to much faster than average job growth in the helping professions through 2018, it is imperative that research continues to explore the effects of secondary trauma on these individuals and ways of combating them[3]. The mental health and quality of life of these individuals is positively correlated to the efficacy of their work. The therapy relationship is unique in that a person's personal and professional roles complement each other and the ability of a helping professional to experience, learn, and deal with the good and bad times provide a foundation for what they are able to accomplish in therapeutic settings with their clients[4]. The urgency for developments in this area are two-fold since the effectiveness of the professional impacts the mental health and/or quality of life of the client.

The goal of this comprehensive review of the literature is to identify the gaps in solutions to the occupational hazards of STS, compassion fatigue, and professional burnout and to suggest new means to prevent and treat them. Influential work on the subject introduced by Charles Figley's book, Compassion Fatigue: Coping with Secondary Traumatic Stress Disorder, will be used with other research, as the quintessence of understanding on the subject. Figley defines STS as the "natural and consequential behaviors and emotions resulting from knowing about a traumatizing event experienced by a significant other and the stress resulting from helping or wanting to help a traumatized or suffering person" [5]. The seminal work of Christina Maslach and peers on professional burnout is looked at as a parallel condition that along with compassion fatigue, occurs cumulatively in the helping professions and can be viewed as a part of compassion fatigue or a condition occurring on its own[6]. Conditions that have a more immediate onset such as vicarious traumatization and secondary traumatic stress are studied with an importance placed on the different aspects of a person effected- the cognitive and behavioral. Review of the STS literature will be complimented by an extensive review of MBCT, which combines cognitive therapy with meditative practices and development of mindfulness. The recent research showing benefits of MBCT in the treatment of recurrent depression, stress,

anxiety disorders, eating disorders, and addiction along with the fundamental work of Zindel Segal, Mark Williams and John Teasdale[7],[8], based on Jon Kabat-Zinn's Mindfulness-Based Stress Reduction program[9][10] will be used as the basis for my understanding of this mode of therapy. My research aim is to explore the use of these methods specifically in the area of prevention and treatment of STS, compassion fatigue, and professional burnout.

This paper will also present findings from evolutionary psychology that explains why and how the human mind reacts to stressors in certain ways. Symptoms often presented as maladaptive will instead be shown as adaptations to help the involved overcome obstacles or perceived obstacles and reserve important cognitive and physical resources in order to accomplish these tasks. Although even experts in evolutionary psychology and those clinicians that believe this theoretical model to be accurate disagree on whether knowledge of these adaptive and physiological processes are necessary or beneficial to those effected, this paper suggests that the population targeted in this study could benefit from the information. Specific reasons that the population focused on here could get positive results from the adaptive theory information are 1) those working in the helping professions and specifically in mental health or medicine already have training in biological, physiological, and psychological processes and can understand the information in its context, 2) the information is complementary to the therapeutic process of Mindfulness because it explains why and how these symptoms occur, allowing a progression from the popular belief that a certain suffering is part of the normal experience of a helping professional (or the denial of its existence altogether) to a broader view that all humans can experience the same cognitive, behavioral, and physical symptoms because we share a common genetic origin with common adaptations. This realization of how and why we are the way we are fills a gap in the MBCT and will make its implementation easier. Being able to live in the present moment and change our automatic interpretations that happen often without our knowledge are more easily realized when we understand the processes behind them. This leads to an easier journey to the final destination of MBCT, which is to recognize our thoughts as simply thoughts and thus mindfully control our reactions to them, and finally because 3) the goals and assumptions of psychoanalysis and evolutionary psychology are compatible and could lead to better ways of helping people who are experiencing emotional pain[11].

Following is an introduction of the research and findings on professional burnout, compassion fatigue and STS, including the effects of these emerging attributes and their impact on the efficacy of the professional. Statistical analysis of data measuring professional quality of life, secondary traumatic stress, and burnout will also be discussed and used to demonstrate the existence of these conditions in mental health professions. Finally, an overview of the methods and current uses of MBCT, including a synthesization of these formerly separate areas of cognitive and behavioral symptoms effecting helping professionals and MBCT as a preventative measure and treatment in these individuals will be presented with the suggestion of further research being done in this area with subsequent treatment and education procedures following.

Professional Burnout

The term “burnout” has been used in literature in the mental health and human services fields for over three decades. Freudenberger originally defined the concept as “a depletion or exhaustion of a person’s mental and physical resources attributed to his or her prolonged, yet unsuccessful striving toward unrealistic expectations, internally or externally derived” [12]. More recently professional burnout (PB) was characterized by Pines and Aronson as a state of physical, emotional, psychological, and spiritual exhaustion resulting from chronic exposure to populations that are vulnerable or suffering[13].

While there have been several authors who have offered specific lists of the causes of PB, there is much overlap and general agreement on several factors encompassing the phenomenon. The first of these is that the process of burning out occurs cumulatively. Although some like symptoms may be exhibited, a person does not burn out after one rough day. The exhaustion and inability to use resources to alleviate the effects of stressors effectively is a progressive state[14] and is often seen as normative behavior in clinicians and other helping professionals. It has become an endemic assumption that such feelings and symptoms are part of the territory that comes along with the profession and is largely ignored in all but the most severely distressed[15].

Concurrence is also found in the causes of burnout leading back to deficiencies which cause frustration. Over time these frustrations lead to burnout[16],[17]. Perceived inadequacies of resources are related to person and environment (both population served and the organization) and demonstrated in three specific areas: emotional exhaustion, depersonalization, and reduced sense of personal accomplishment[18],[19],[20]. Since most participants in the helping professions must encounter a combination of inadequacy in professional recognition and opportunities, education, variety, leisure time, power over client load and work environment, coworker cohesiveness, and time away from the population served, there is always a risk of professional burnout.

Vicarious Traumatization, Secondary Traumatic Stress, Compassion Fatigue

Clinicians in the mental healthcare and social work fields often work with populations that have been affected by one or more traumatizing events. Often through their work they are exposed to horrific and cruel events and witness the effect these instances on the client. Facilitating treatment to deal with these traumatic events frequently means that the clinician must listen repeatedly to a retelling of the traumatic event, which in many instances means vivid details and imagery that are not only troubling, but also burdensome. This burden shared by the clinician as a result of indirect exposure to trauma is documented in a growing number of studies[21]. Observed cognitive, emotional, and behavioral shifts in helping professions serving the traumatized are generally assigned one of three common titles: vicarious traumatization (VT), secondary traumatic stress (STS), or compassion fatigue (CF). Since this area of study has been growing rapidly within the broader context of trauma studies, it is important that a delineation be made between these concepts that are often used interchangeably, but refer to distinct phenomena.

McCann and Pearlman first outlined the shift in cognitive schemas and belief systems using the term *vicarious trauma*[22]. Changes are the result of empathic involvement with clients' trauma material and focuses solely on the negative inner transformation on the part of the clinician[23],[24]. This engagement with clients may lead to disruptions in sense of meaning identity, world view, beliefs about self, and interpersonal relationships[25].

Primary author on this subject Charles Figley describes quantifiable symptoms mirroring those of Post-Traumatic Stress Disorder (PTSD) with the term *secondary traumatic stress*. STS is defined as "the natural consequent behaviors and emotions resulting from knowing about a traumatizing event experiences by a significant other-the stress resulting from helping or wanting to help a traumatized or suffering person"[26]. It can be inferred from Figley's writing on the term that "significant other" refers to any person where a significant emotional engagement is present, which would include clients that a professional wishes to help. He also asserts that STS yields an almost identical set of symptoms to those of PTSD, with the only differences being with STS, a person is exposed to knowledge of a significant other's traumatizing event. Symptoms resulted from STS which mirror those of PTSD may include intrusive thoughts, traumatic memories or nightmares recalling the events associated with the significant other, insomnia, chronic

irritability, angry outbursts, fatigue, hypervigilance,and exaggerated startle response[27]. A current complete list of diagnostic criteria for PTSD can be found in the DSM-IV[28].

Compassion fatigue is a more recent user-friendly term for the effects of STS[29]. Best described as a combination of the symptoms of STS and PB, the term has recently emerged as a more exhaustive term for the physical and emotional fatigue experiences by the recurrent treatment of suffering patients and the empathic engagement with these clients[30].

Important differences to note amongst the terms are that vicarious trauma and secondary traumatic stress have a more immediate onset than the cumulative states of professional burnout and compassion fatigue. VT and STS also are concerned with the intrinsic, cognitive shifts and the extrinsic, behavioral symptoms, respectively. PB and CF both occur over time and with repeated exposure and are comprised of mental, physical, and spiritual differentia.

The Why and How of Anxiety, Mental Fatigue, and Depressive Symptoms: Evolutionary Psychology

In seeking answers to why and how the negative syndromes discussed in this paper occur, and the best methods of prevention and treatment in a helping profession population- research shows that the answers have been there all along. In order to properly treat and prevent the common negative effects of working in a helping profession, an examination of the causes of these phenomena are necessary. The quest for efficient prevention, treatment, and the evolution of these symptoms all lead down a path that is millennia old[31]. The questions of why and how are answered by an investigation of millions of years of wisdom- a body of knowledge held by the biological and physiological systems of the human species. Just like a mother gives her child instructions that may seem unnecessary to them at the time but in hindsight are realized to have been given for their own good and from a much superior level of experience, so too do our bodies operate in this way. While an exhaustive exploration of all the ways our bodies carry out processes without our knowledge or realization for fitness purposes is beyond the scope of this paper, a brief background and look at a few of these processes that could benefit those we focus on in this paper will be covered.

The Pleistocene Era, which lasted between 1.8 million-12,000 years ago seems far removed from our post-modern age, but the study of evolutionary psychology (an integration of the evolutionary biology, biological anthropology, and cognitive psychology disciplines) offers a look at the beginning of the *Homo sapien* mind and how we have since evolved into the human brain and evolutionary motivations that we encounter today[32]. U.S. geneticist Theodosius Dobzhansky is often noted for the title of one of his most famous essays, "Nothing in biology makes sense except in the light of evolution"[33]. Without a brain and all of its biological processes, there would be no discipline of psychology and so this paper will agree with his statement. Evolutionary psychology seeks to be the missing link needed to connect the areas of evolutionary biology and human social life that are often at odds with each other and unite all branches of psychology into one system of knowledge[34]. Some important premises within evolutionary psychology will be explained at which point the fundamental questions of why and how these negative emotions and symptoms exist will be answered. Following these essential answers, methods for prevention and treatment of PB, CF, VT, and STS from a dramatically different theoretical framework will be suggested. Although the two areas within psychology are worlds apart, their potential for a very complimentary relationship will be demonstrated.

In a prophetic statement after he presented his theory of natural selection, Charles Darwin wrote, "In the distant future I see open fields for far more important researches. Psychology will be based on a new foundation, that of the necessary acquirement of each mental power and

capacity by gradation."[35] Many years later, evolutionary psychology is doing that and more. It is a formal approach to the study of psychology that can be applied to any topic within the field. This school of thought holds that the brain is an organ of computation that embodies a set of programs within its structure and it is there *because* it embodies these programs[36]. For a randomly generated modification to be selected or incorporated non-randomly into the brain design of a species, it had to solve an adaptive problem of the organism.[37],[38] In other words, the trait had to have a specific function which propagated that modification over many generations which means that our brain circuitry and neural architecture must reflect, "(1) the computational task demands inherent in the performance of those ancestral activities and (2) the evolutionary long-enduring structure of those task environments."[39],[40], The computational circuitries are so vast and complex that we never notice them regulating the activities that come natural to us that we are engaged in on a daily basis. Although these processes are normally seamless and under our detection, there are times when not being aware of these ancient mechanisms and the problems, selection pressures, and environments they were meant to solve[41],[42],[43] can cause some difficulties, which will be covered in this paper. The preceding principles, along with the five critical principles that will follow were outlined by Cosmides and Tooby and together constitute an "organism design theory" which can be used to fit together research findings into models of specific cognitive and neural mechanisms.

Critical principles which are imperative for an understanding of how the brain evolved and why depression, anxiety, and other seemingly negative symptoms occur are: "(1) The brain is a physical system. It functions as a computer with circuits that have evolved to generate behavior that is appropriate to environmental circumstances. (2) Neural circuits were designed by natural selection to solve problems that human ancestors faced while evolving into Homo sapiens. (3) Consciousness is a small portion of the contents and processes of the mind; conscious experience can mislead individuals to believe their thoughts are simpler than they actually are. Most problems experienced as easy to solve are very difficult to solve and are driven and supported by very complicated neural circuitry. (4) Different neural circuits are specialized for solving different adaptive problems. (5) "modern skulls house a Stone age mind"[44].

Depression and anxiety are studied from an evolutionary psychology perspective. Anxiety is often comorbid with depression[45]. People often believe that their ruminations give them insight into their problems. Clinicians on the other hand, view depressive rumination as pathological because it is hard to disrupt and it interferes with the ability to concentrate on other things. Evolutionary psychology view it is adaptive *because* it is difficult to disrupt and allows the person to concentrate on the issue that triggered the response[46]. The analytical rumination hypothesis (AR) proposes that depression is an adaptation that evolved as a response to complex problems and whose function is to minimize disruption of rumination to sustain analysis of complex problems. It accomplished this by giving episode-related problems priority access to limited processing resources, by reducing the desire to engage in distracting activities (often described as anhedonia), and by producing psychomotor changes that reduce exposure to distracting stimuli. Because processing resources are limited, the inability to concentrate on other things is a tradeoff that must be made in order to sustain analysis of the triggering problem[47]. Organisms have limited energy, attention, and physical resources. Some stressors experienced are severe enough that the body gives them priority over others and allocates more energy to solving (making an effort to eliminate the stressor) the problem. Negative emotions are some of these stress response mechanisms and are involuntary reactions to environmental challenges with important fitness consequences. They evolved to coordinate changes in physiology, immune

function, attention and cognition, physical activity and other body systems to meet those challenges[48],[49],[50].

Because these methods adapted over time, it does not always mean that it is the best way. Depressive rumination does not have to be currently adaptive because modern and ancestral evolutionary environments probably differ in many ways[51],[52]. There is strong evidence that rumination does help people analyze and solve problems[53] however, this paper suggests that our modern mind has the capacity to mindfully overcome perceived obstacles in a much more efficient and beneficial way.

Mindfulness-Based Cognitive Therapy

Careful review of literature showing the effectiveness of Cognitive Behavioral Therapies (CBT) for a variety of issues clients face in mental health and specifically the results of mindfulness-based interventions such as Mindfulness-Based Stress Reduction (MBSR) and Mindfulness-Based Cognitive Therapy (MBCT) should lead to further research on its capacity to prevent and treat cognitive, behavioral, physical, and spiritual symptoms in helping professionals who are at a high risk to experience these occupational hazards. Proper precautions must be taken in these industries to protect the mental, emotional, and physical integrity of its employees for their own benefit and because these factors directly effect the lives of the clients they serve.

To fully understand the concept of MBSR and MBCT, a brief history of their evolution is necessary. Until the 1970's research on depression was concerned only with the initial onset of acute depression, which normally occurred after a traumatic event. This approach led to the use of antidepressants for the treatment of depression. It became apparent that depression was often recurrent and that when a person stopped taking the medicine, depression was not stopped from resurfacing. It was this conundrum and the desire to teach people skills when they were well that would help prevent these recurring episodes from happening that lead several scientist-practitioners on a path that would end up at the same place[54]. The place of intersection was an investigation of *mindfulness* and its cultivation of a form of awareness. Mindfulness meditation has been practiced in Asia by Buddhists for thousands of years and can be summarized as a calm awareness of one's body functions, feelings, content of consciousness, or consciousness itself . Dr. Jon Kabat-Zinn of the University of Massachusetts School of Medicine adapted these principles for use in a western medical setting to benefit patients that were dealing with stress, pain, and chronic illness. MBSR was the result of these efforts and has proved to be beneficial to many patients since its creation in 1979.[55] With proof that mindfulness techniques work in alleviating some duress caused by chronic disease, debilitating conditions, as well as psychological problems such as anxiety and panic, further research and a new program (MBCT) was developed by Williams, Teasdale, and Segal as a preventative and therapeutic program to combat recurrent depression.[56],[57]

MBCT is an eight-week program that is normally delivered in small groups. Throughout the program there is guided practice of some of the techniques and homework that complements what is learned in the class. While depression, anxiety, and resulting symptoms faced by helping professionals are shown from an evolutionary standpoint to be our bodies best way of dealing with circumstances outside a person's control or perceived as a problem that needs to be fixed, this therapy seeks to helps a person to disengage from the entire pattern of mental activity. Catastrophic events lead to depressive and anxious symptoms. Since helpers are often exposed to secondary traumatic stress, MBCT is a great fit for them.

What is mindfulness and how does it help with the problems faced by those focused on in

this paper? Mindfulness is "the awareness that emerges through paying attention on purpose, in the present moment, and non-judgmentally to things as they are"[58]. Through practice, an ability is gained to expand the very small window of consciousness referred to by evolutionary psychology. Instead of automatically responding to the world around us through processes that are often unbeknownst to us, we can instead learn to experience them by paying attention to the sensations around us and our reactions. We can be aware of our thoughts and aware that we are thinking. We can shift from a *doing mode* (which our bodies stay in automatically as it tries to best respond to problems or obstacles it perceives) to a *being mode* where we are aware of our perceptions and have control over them. If a change in perception is made that shifts a circumstance from a problem or threat and instead regards it as a challenge and experience for growth, the negative cycle of professional burnout and compassion fatigue can be avoided. Part of the emotional and physical exhaustion that is experienced by professional suffering from burnout is also because it becomes routine to constantly think of a long list of tasks that must be accomplished. This list may extend through the end of the day, the week, the year, or even the next several years. It is easy to see how someone could be exhausted by a list that long, especially when some things on the list are actually outside the person's control anyway. Precious energy and resources are wasted because they are constantly being pulled away from the tasks that are in front of you and pulled towards a never-ending list of things in the future. Mindfulness allows us to stay in the present moment and allow the energy to come through to accomplish just that moment's task.[59]

With practice, the mindfulness practitioner can start to realize how thoughts affect mood. Additionally they can go on to realize that thoughts are not concrete, they are not fact, and you can control them instead of them controlling you. This allows for more energy, openness, resiliency, and compassion towards the self and others. Instead of a cluttered mind where each new thought or obstacle must fight to get attention, an aware mind is clear and can have a fresh start each day. Even the most aware individuals have bad days, but there is a huge difference in being able to accept challenges and grow from them and being caught in a negative cycle of exhaustion, avoidance, and constant rumination on problems that do not have a solution. The following study of workers in the mental health care field demonstrate that the syndromes outlined in this paper are present and that education and treatment of these symptoms does warrant more attention.

Summary and Conclusion

The existence of STS, VT, CF, and PB have been demonstrated to exist to a moderate extent among those delivering care to the suffering. There is an acknowledgement that a sparse amount of concrete suggestion for solutions to prevent and treat these problems exists. Although research has examined the symptoms and syndromes themselves, too often the suggestions for fixing these problems are vague and general. Maslach provides the most comprehensive understanding and measure of burnout, but her suggestions for professionals to become more resilient and start a personal fitness plan are not enough. Others make suggestions that are even more vague. In *The Human Rights of Professional Helpers,* George Henderson writes that each person should devise their own plan to prevent burnout and the key is to be a well-rounded person[60]. Non-solutions are simply not acceptable any longer as the literature shows ample proof that helping professionals are suffering and that clients and organizations also suffer as a result.

Evolutionary psychology allows us to see why and how stressors start certain biological and physiological processes in the body that lead to depression, anxiety, and their comorbid conditions. It also allows us to see that some of these reactions may have been more suited to

some of the ancestral environments and have allowed us to evolve to the point where we are today, but better problem-solving methods can be consciously generated.

MBCT is one distinct method that has been proven effective against depression, anxiety, and the symptoms that go along with them. It is a structured plan that helps people be in control of their thoughts and their reactions to them and with practice can thus eliminate the body's natural but costly stress reaction responses. More research should be conducted immediately to ensure the efficacy of this treatment in helping professions so that it can be put into effect or another more efficacious method can be found. Compassionate people should no longer be forced to sacrifice their own mental health and happiness in order to serve others. Professionals, clients, their families, and agencies have much to gain from further research in this field.

Endnotes

[1] American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (Revised 4th ed.). Washington, DC: Author.

[2] Bride, B., & Figley, C. (2007). The Fatigue of Compassionate Social Workers: An Introduction to the Special Issue on Compassion Fatigue. *Clinical Social Work Journal*, *35*(3), 151-3. doi: 10.1007/s10615-007-0093-5

[3] Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2010-11 Edition*, Social Workers, on the Internet at http://www.bls.gov/oco/ocos056.htm

[4] Kottler, J.A. (1989). *On being a therapist*. San Francisco: John Wiley & Sons.

[5] Figley, C.R. (1995). *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized.* Brunner/Mazel: Levittown, PA.

[6] Maslach, C. (2003). *Burnout: the cost of caring*. Malor Book. Cambridge, MA.

[7] Segal ZV, Williams JMG, Teasdale JD. (2002) *Mindfulness-based cognitive therapy for depression: A new approach to preventing relapse.* New York: Guilford Press.

[8] Williams, M., Teasdale, J., Segal, Z., Kabat-Zinn, J. (2007). *The mindful way through depresession: freeing yourself from chronic unhappiness.* The Guilford Press: New York

[9] Kabat-Zinn, J. (1994). *Wherever you go there you are: mindfulness meditation in everyday life*. Hyperion: New York.

[10] Grossman, P., Niemann, L., Schmidt, S., & Walach, H. (2004). Mindfulness-based stress reduction and health benefits: A meta-analysis. *Journal of Psychosomatic Research*, *57*(1), 35-43. doi:10.1016/S0022-3999(03)00573-7.

[11] Duchaine, B., Cosmides, L., & Tooby, J. (2001). Evolutionary psychology and the brain. *Current Opinion in Neurobiology*, *11*(2), 225-230.

[12] Freudenberg, H.J. (1974). Staff burnout. *Journal of Social Issues*, *1*, 159-164.

[13] Newell, J.M., & MacNeil, G.A., (2010). Professional burnout, vicarious trauma, secondary traumatic stress, and compassion fatigue: A review of theoretical terms, risk factors, and preventative methods for clinicians and researchers.

[14] Newell, J.M., & MacNeil, G.A., (2010). Professional burnout, vicarious trauma, secondary traumatic stress, and compassion fatigue: A review of theoretical terms, risk factors, and preventative methods for clinicians and researchers.

[15] Wicks, R. (2003). Countertransference and burnout in pastoral counelsing. In R. Wicks, R. Parsons, & D. Capps (Eds.), *Clinical handbook of pastoral counseling: Vol. 3.* Mahwah, NJ: Paulist Press.

[16] Gill, J. (1980). Burnout: A growing threat in ministry. *Human Development, 1*.

[17] Wicks, R. (2003). Countertransference and burnout in pastoral counelsing. In R. Wicks, R. Parsons, & D. Capps (Eds.), *Clinical handbook of pastoral counseling: Vol. 3.* Mahwah, NJ: Paulist Press.

[18] Maslach, C. (2001). What have we learned about burnout and health? Psychology and Health, 16 (5), 607-611.

[19] Newell, J.M., & MacNeil, G.A., (2010). Professional burnout, vicarious trauma, secondary traumatic stress, and compassion fatigue: A review of theoretical terms, risk factors, and preventative methods for clinicians and researchers.

[20] Wicks, R. (2003). Countertransference and burnout in pastoral counelsing. In R. Wicks, R. Parsons, & D. Capps (Eds.), *Clinical handbook of pastoral counseling: Vol. 3.* Mahwah, NJ: Paulist Press.

[21] Bride, B.E., Radney, M. & Figley, C.R. (2007). Measuring compassion fatigue. *Clinical Social Work Journal, 35,* 155-163.

[22] McCann, L. & Pearlman, L.A. (1990). Vicarious traumatization: A framework for understanding the psychological effects of working with victims. *Journal of Traumatic Stress*, 3 (1), 131-147

[23] Bride, B.E., Radney, M. & Figley, C.R. (2007). Measuring compassion fatigue. *Clinical Social Work Journal, 35,* 155-163.

[24] Pearlman, L.A., & Saakvitne, K.W. (1995). *Trauma and the therapist: Countertransferance and vicarious traumatization in psychotherapy with incest survivors.* Norton: New York.

[25] Pearlman, L.A., & Saakvitne, K.W. (1995). *Trauma and the therapist: Countertransferance and vicarious traumatization in psychotherapy with incest survivors.* Norton: New York.

[26] Figley, C. R. (1995). *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized.* Brunner/Mazel: Levittown, PA.

[27] Figley, C. R. (1995). *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized.* Brunner/Mazel: Levittown, PA.

[28] American Psychiatric Association (1994). *Diagnostic Manual of Mental Disorders* (4th ed.). Washington, D.C.: American Psychiatric Association.

[29] Figley, C. R. (2002). *Treating Compassion Fatigue.* Brunner-Routledge: New York.

[30] Newell, J.M., & MacNeil, G.A., (2010). Professional burnout, vicarious trauma, secondary traumatic stress, and compassion fatigue: A review of theoretical terms, risk factors, and preventative methods for clinicians and researchers.

[31] Williams, M., Teasdale, J., Segal, Z., Kabat-Zinn, J. (2007). *The mindful way through depresession: freeing yourself from chronic unhappiness.* The Guilford Press: New York

[32] Cosmides, L., & Tooby, J. (2006). Evolutionary psychology, moral heuristics, and the law. In G. Gigerenzer & Christoph Engel (Eds.), *Heuristics and the Law* (Dahlem Workshop Report 94). Cambridge, MA: MIT Press.

[33] Dobzhansky, T. (1973). Nothing in biology makes sense except in the light of evolution. *The American Biology Teacher*, 35(3):125-129.

[34] Cosmides, L., Tooby, J. & Barkow, J. (1992). Evolutionary psychology and conceptual integration. In J. Barkow, L. Cosmides, & J. Tooby (Eds.), *The adapted mind: Evolutionary psychology and the generation` of culture.* New York: Oxford University Press.

[35] Darwin, C. (1998). *The origin of species by means of natural selection, or, The preservation of favored races in the struggle for life*. New York: Modern Library.

[36] Cosmides, L., & Tooby, J. (2006). Evolutionary psychology, moral heuristics, and the law. In G. Gigerenzer & Christoph Engel (Eds.), *Heuristics and the Law* (Dahlem Workshop Report 94). Cambridge, MA: MIT Press.

[37] Cosmides, L., & Tooby, J. (2006). Evolutionary psychology, moral heuristics, and the law. In G. Gigerenzer & Christoph Engel (Eds.), *Heuristics and the Law* (Dahlem Workshop Report 94). Cambridge, MA: MIT Press.

[38] Andrews, Paul A,. Steven W. Gangestad & Dan Matthews (2002). Adaptationism, Exaptationism, and Evolutionary Behavioral Science. *Behavioral and Brain Sciences* 25 (4):534-547.

[39] Marr, D. (1982). Vision: A computational investigation into the human representation and processing of visual information. San Francisco: Freeman.

[40] Cosmides, L. & Tooby, J. (1992). Cognitive adaptations for social exchange. In J. Barkow, L. Cosmides, & J. Tooby (Eds.), *The adapted mind: Evolutionary psychology and the generation of culture.* New York: Oxford University Press.

[41] Cosmides, L. & Tooby, J. (1987). From evolution to behavior: Evolutionary psychology as the missing link. In J. Dupre (Ed.), *The latest on the best: Essays on evolution and optimality.*Cambridge, MA: The MIT Press.

[42] Tooby, J. & Cosmides, L. (1990). On the universality of human nature and the uniqueness of the individual: The role of genetics and adaptation. *Journal of Personality, 58,* 17-67.

[43] Cosmides, L. & Tooby, J. (1992). Cognitive adaptations for social exchange. In J. Barkow, L. Cosmides, & J. Tooby (Eds.), *The adapted mind: Evolutionary psychology and the generation of culture.* New York: Oxford University Press.

[44] Allman, W.F. (1994). How evolution has shaped modern life- from sex, violence, and language to emotions, morals, and communities. New

York: Simon & Schuster.

[45] Belzer, K., & Schneider, F.R. (2004). Comorbidity of anxiety and depressive disorders: Issues in conceptualization, assessment, and treatment. *Journal of Psychiatric Practice*, 10(5), 296-306.

[46] Andrews, P. W. and Thomson, J. A. (2009). The bright side of being blue: depression as an adaptation for analyzing complex problems. *Psychological review*, 116(3):620-654.

[47] Andrews, P. W. and Thomson, J. A. (2009). The bright side of being blue: depression as an adaptation for analyzing complex problems. *Psychological review*, 116(3):620-654.

[48] Cosmides, L. & Tooby, J. (2000). Evolutionary psychology and the emotions In M. Lewis & J. M. Haviland-Jones (Eds.), *Handbook of Emotions, 2nd Edition.* (pp. 91-115.) NY: Guilford.

[49] Ekman, P. (1999). Basic emotions. In T. Dalgleish & M. Power (Eds.), *Handbook of cognition and emotion* (pp19). New York, NY: Wiley.

[50] Tooby, J. & Cosmides, L. (1990). The past explains the present: Emotional adaptations and the structure of ancestral environments. *Ethology and Sociobiology, 11*, 375-424.

[51] Thornhill, R. (1990). The study of adaptation. In M. Bekoff & D. Jamieson (eds.), *Interpretation and explanation in the study of animal behavior: Explanation, evolution and adaptation* (pp 31-62). Boulder, CO: Westview Press.

[52] Thornhill, R. (1997). The concept of an evolved adaptation. In G. Bock & G. Cardew (Eds.)., *Characterizing human psychological adaptations* (pp 4-13). London, UK: CIBA Foundation.

[53] Andrews, P. W. and Thomson, J. A. (2009). The bright side of being blue: depression as an adaptation for analyzing complex problems. *Psychological review*, 116(3):620-654.

[54] Williams, M., Teasdale, J., Segal, Z., Kabat-Zinn, J. (2007). *The mindful way through depression: freeing yourself from chronic unhappiness.* The Guilford Press: New York

[55] Kabat-Zinn, J. (2003), Mindfulness-Based Interventions in Context: Past, Present, and Future. Clinical Psychology: Science and Practice, 10: 144–156.

[56] Teasdale, J.D., Segal, Z.V., Williams, J.M.G., Ridgeway, V., Soulsby, J., & Lau, M. (2000). Prevention of relapse/recurrence in major depression by mindfulness-based cognitive therapy. *Journal of Consulting and Clinical Psychology*, 68, 615-623.

[57] Williams, M., Teasdale, J., Segal, Z., Kabat-Zinn, J. (2007). *The mindful way through depresession: freeing yourself from chronic unhappiness.* The Guilford Press: New York

[58] Williams, M., Teasdale, J., Segal, Z., Kabat-Zinn, J. (2007). *The mindful way through depresession: freeing yourself from chronic unhappiness*, 47. The Guilford Press: New York

[59] Williams, M., Teasdale, J., Segal, Z., Kabat-Zinn, J. (2007). *The mindful way through depresession: freeing yourself from chronic unhappiness.* The Guilford Press: New York

[60] Henderson, G. (1983). *The human rights of professional helpers.* Charles C Thomas: Springfield, IL