STRESS AND DEPRESSION DISCOURSES ON SELF-HELP WEBSITES:

WHAT IS THEIR RELATION IN THE ONLINE CONTEXT?

Thesis Submitted to the College of

Graduate Studies and Research

In Partial Fulfillment of the Requirements

For the Degree of Doctor of Philosophy

In the Department of Psychology

University of Saskatchewan

Saskatoon, SK

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Abstract

Stress and depression are popular and powerful terms within the mental health field. Although the relation between the two terms has been discussed and investigated in lay and scientific discourse, less is known about how this relation is constructed online. Individuals wanting to learn more about these topics are increasingly turning online using a search engine as an initial quick method of obtaining mental health information. The present research examines the stress and depression discourse found on self-help websites using a social constructionist epistemological framework and the methodological approach of discourse analysis. In the first manuscript, I specifically examined how stress was constructed in the causal ontology of depression in six different websites. The analysis demonstrated that many possible relations between the two terms were included. This finding suggests that, in the online context, ensuring that website users find themselves represented in the text is of maximal importance. In the second manuscript, I examined how the stress and depression terms themselves were constructed. This analysis suggests that the stress discourse often borrowed from depression discourse, constructing the two terms in similar ways. This parallel construction involved defining both terms as mental illnesses, with corresponding symptoms and clinical presentations that required treatment. The degree of overlap between the two terms suggests that engaging the website user was more important than the specific label used to label the distress in the online context. I examine the contrast between the general, fluid, and elastic constructions of the mental health terms found online with the ever-evolving need for increased precision and demarcation of mental health conditions within the fields of psychiatry and psychology.

Acknowledgements

First of all, I would like to thank Dr. Linda McMullen for her kind and generous mentorship throughout the duration of this program. This dissertation would never have been completed, let alone conceived, without your infectious passion for critical inquiry into all things taken-for-granted. I feel that I have acquired some "new eyes" and will never quite see in the same way again. For this, I owe you my sincere gratitude.

Thank you to all the advisory committee members: Dr. Ulrich Teucher, Dr. Marilyn Baetz, Dr. Jorden Cummings, and Dr. Lisa Kalynchuk, for your thoughtful questions, kind support, gentle encouragement, patience, and attendance at committee meetings during the dreaded summer months! Your humour, intelligence, and continued engagement helped motivate me throughout this lengthy research process. Thank you to Dr. Lorrie Radtke, for serving as the external examiner and providing valuable feedback.

To my father, Joseph, who believed this day would come eventually, although he was only able to live long enough to witness my first year in the PhD program. I carried your faith and belief in me whenever mine faltered. We did it! To my mother, Sosamma, whose strength and perseverance bolstered me when I grew weary with the effort. Thank you both for making the arduous journey to a foreign land to provide me with opportunities I would otherwise be unable to enjoy. This achievement is ours. To my sister, Anita, thank you for being my lifelong companion, confidante, and cheerleader. You have shaped who I am and my life is made better with you by my side. You are an amazing source of inspiration to me, and you will always be my hero on how to live life well. To Dwight, and my beautiful nieces, Mia and Emma: thank you for making me laugh and providing much comic family relief on my frequent trips home to 'regain' my sanity. To my lovely cousins, aunt and uncle: thank you all for your support and encouragement throughout the years, and the delicious home-cooked meals! Fond family memories of our times spent together sustained me in the lonely stretches of time alone.

To all my friends, the journey is done! Robyn - you have travelled the world over to support me in my dreams and we can finally rest. To Mae and Firas, your incredible love, generosity, kindness, and support never ceased to humble me. I will always treasure our "family dinner nights" and count myself very blessed to have you in my life. To the O'Reilly-Bird-Wilson's – my Saskatoon family – thank you for your offer of love, friendship, shelter, and fun memories in the home stretch. Who knew you could enjoy winter in Saskatoon? Declan - you provided the last bit of support to see me to the finish line – hooray! Andrea – Freedom 2015 is accomplished! To Dennis Brown – thank you so much for your love, support, wisdom, guidance, laughter, and care. You have taught me so many life lessons and I am forever changed by our connection. I am especially grateful for my faith, as I have come to rely upon it, time and again, over the years and it has never failed me. This accomplishment is done in remembrance of all my family members who have left this earth, far too early, but long enough to bear witness to the importance of providing service to others, and to use our gifts to our fullest capacity. Lastly, financial support was generously provided by the Social Sciences and Humanities Research Council of Canada (SSHRC) Doctoral Fellowship, and the Teacher-Scholar Doctoral Fellowship from the College of Graduate Studies and Research.

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Chapter 1: Introduction

Stress has been described as "prone to wooly definitions and imprecise meaning…understood by all, but defined satisfactorily by none" (Mulhall, 1996). Despite this shortcoming, scientific and lay discourses about the topic continue to grow, particularly in relation to the role of stress in developing illnesses, such as depression (Carr & Umberson, 2013; Donnelly & Long, 2003; Liu & Alloy, 2010). The terms 'stress' and 'depression' are used frequently in the mental health fields of psychology and psychiatry, and treatments for these 'conditions' are promoted, whether in the form of self-help, pharmaceuticals, alternative medicine, or psychotherapy. Understanding the cultural constructions of these mental health topics has important implications for how clinical psychologists define and treat the numerous individuals affected by them. My interest in this research is to examine the relation of stress and depression as it is constructed in the online text of self-help websites. When people turn to the Internet and seek help for stress and depression by searching for these mental health terms, what does the text of the self-help website offer them as a result of their search efforts? This research is concerned with answering four separate, but related research questions.

1.1 Research Questions

(1) How do self-help websites construct the relation of stress and depression?

(2) What discursive devices are used to achieve this construction?

(3) What are the implications of this construction for website users?

(4) How does the website information map on to wider public discourses on the relation of stress and depression?

I use the convention of single quotations around these two terms to denote the necessity of defining what is meant by them in a particular discursive context, rather than assuming they have a fixed meaning. I begin by providing working definitions of 'stress' and 'depression' to provide a common reference point for reviewing the research literature. I then briefly trace the historical roots and prevailing discourses of these two terms. I highlight some of the criticisms directed at stress and depression research to date. Finally, I review health information online, focusing on the example of self-help websites and discuss why critical Internet studies of health are needed.

1.2 Rationale and Relevance

Examining the ways in which ideas about the relation of stress and depression is articulated online can provide valuable insights into the cultural conceptions of these health constructs. 'Stress' and 'depression' are popular and powerful terms within the mental health field, but also within lay discourses as people frequently invoke these terms to describe experiences of distress (Harkness, Long, Bermbach, Patterson, Jordan & Kahn, 2005; Kinman & Jones, 2005; Mulhall, 1996). As a result, research about the etiology, manifestation, understanding, and treatment of these 'conditions' continues to grow in popularity (Becker, 2010; Donnelly & Long, 2003). Stress is often invoked as an important causal agent in the development of mental and physical illnesses (Donnelly & Long, 2003). In the field of clinical psychology, the role of stress in the development, maintenance, and exacerbation of mental health conditions, particularly depression, is

increasingly examined. The majority of this literature is examined from a post-positivist theoretical perspective, creating factors and variables that are amenable to statistical procedures. The drawbacks of these approaches stem from their exclusive focus on causation, to the exclusion of meaning frameworks, contextual factors, and the constructed nature of language (Mulhall, 1996). How people understand stress and depression influences how they respond to them. Despite the vast literatures amassing on these topics, to my knowledge, no studies to date have examined the relation of these two mental health terms as they are constructed online. I wish to approach this literature from a different vantage point, critically examining the taken-for-granted notions of these concepts within mental health.

Many individuals conduct health searches online as a first step in investigating treatment options (Pew Internet Survey, 2013). In a survey of American adults in 2013, 59% of adults looked for health information online within the past year, with 77% of online health seekers stating they began their search at a search engine (Pew Internet Survey, 2013). For mental illnesses in particular, online users may be less worried about social stigma of they obtain online help, preferring the privacy, anonymity, and ease of the Internet in investigating treatment options. Many people begin their search for information on mental health terms by entering queries into a search engine and examining the results. Google remains the most popular search engine worldwide, and mediates the majority of search queries. I am curious about the type of information that is returned as a result of an Internet search on the relation of stress and depression using the Google search engine. I use a discourse analytic (DA) methodological approach in my analysis of the website text. DA is uniquely suited to answer the above research

questions in its focus on the situated use of language in constructing particular versions of reality (Burr, 1995; Fairclough, 1992; Potter & Wetherell, 1987). The current research examines the discourses of stress and depression on self-help websites to assist website users to understand how this particular context constructs these terms as part of their online search for mental health information.

Chapter 2: Literature Review

2.1 Working Definitions

The multiplicity of definitions that exist for 'stress' and 'depression' is indicative of their variation in different discursive contexts. A working definition of both terms is necessary to provide a common ground for understanding the literature review. This is not to suggest that the following definitions are the final arbiters of what counts as 'truth', but definitions provide a frame of reference for how the terms have been used in the research literature. This research is conducted with the realization that the research enterprise itself is yet another discursive context that can become the focus of analytical inquiry.

2.1.1 Stress concept. Stress is a ubiquitous concept that has experienced growing popularity in health and lay discourses (Becker, 2010; Brown, 1996; Donnelly & Long, 2003; Mulhall, 1996; Pollock, 1988; Young, 1980). Mulhall (1996) describes three main variations in the definition of stress that characterize the bulk of stress research: stress as a *response*, stress as *stimulus*, and stress as a *dynamic interaction*. In the response based model, stress is viewed as an individual's *response* when confronted with a stressful event. With this definition, stress operates as the dependent variable and the outcome to

be evaluated in research studies. In the stimulus based model, stress now becomes the *stimulus* (i.e., environmental conditions, external stressors) that triggers an adaptive (or maladaptive) response. In this iteration, stress functions as the independent variable that is manipulated in order to determine which conditions might be deemed 'stressful'. In the interactional model, stress is seen as the lack of fit between the environment and person. Stress is viewed as a *dynamic interaction* between the person and environment that involves the perception that the resources possessed are inadequate to meet the demands of the current situation. This final view is consistent with a cognitive appraisal framework (Lazarus & Folkman, 1984; Mulhall, 1996). Lazarus and Folkman's (1984) cognitive appraisal model emphasizes the importance of appraisal mechanisms in mediating the stress response. The intensity of an individual's response to an event depends in great part on his or her cognitive appraisal of a stimulus (Lazarus & Folkman, 1984). To the extent that an individual perceives a stimulus to be threatening, his or her level of emotional and physiological arousal correspondingly increases, explaining the difference in individual responses to the same stimulus (Lazarus & Folkman, 1984).

These definitions have supported the various types of studies that have been conducted in the stress research literature including the biological, developmental, and social (Mulhall, 1996). The biological approach focuses on somatic reactions to various stimuli (*response based model*); the developmental approach searches for vulnerability factors (e.g., personality types, cognitive styles) in the development of disease (*interactional model*); and the social approach employs life event inventories to determine what social factors or environmental conditions (*stimulus based model*) contribute to poorer outcomes (Mulhall, 1996). It is in this latter type of study that the

association between 'a stressful life' and the development of illnesses such as depression began. Mulhall (1996) concluded that stress, as a construct of health, is imprecise since "in addition to being itself, and the result of itself, is also the cause of itself" (Ellis & Thompson, 1983, as cited on p. 406). However, it is this three-fold use of the term 'stress' that is employed in the bulk of stress research.

2.1.1.1 History of the term 'stress'. While the term 'stress' is difficult to locate precisely in the historical record, various authors have suggested potential origins. It has been suggested that the current term *'stress'* comes from 13th century Middle English versions of the word '*stresse*', '*distresse*', and '*destresse,*' reflecting experiences of hardship, adversity, force, or pressure. The Oxford English Dictionary counts in excess of nine accepted definitions including: pressing demand, adverse circumstance, physical strain or pressure, exertion or effort, force acting upon a body, and hardship/adversity, to name a few (Retrieved from www.oed.com). Rees (1976) stated that the term 'stress' was used as early as the fifteenth century. It was a shortened form of the word 'distress', and accompanied the word 'disease' which was used to refer to 'dis-ease' or discomfort, rather than modern conceptions of illness. Hobfall (1998) suggested that the concept of stress has been used in medicine for several centuries as a potential source of *disease* and *melancholy* (depression). He cited the writing of Robert Burton in 1624 who linked social 'stresses' with the cause of malady. Abbott (1990) contended that the *concept* of stress predates the actual *label* and originates in Romantic critiques of modernity. Somerfield and McCrae (2000) posited that the modern notion of stress could be tied to ideas related to adaptation, originating in the 19th century work of Sigmund Freud and his daughter, Anna. The duo introduced and expanded on the concept of intrapsychic

defense mechanisms as a way of managing the distress of reality. While their work favored intrapsychic processes over interactions with the physical environment, the idea of adaptation related to defensive responses was introduced.

Hobfall (1998) argued that one could go even further back in ancient history to the Book of Job in the Bible. He cited Job as the first case study of an individual facing numerous stressful life events, comparable to the types employed in modern day life event checklists, and managing to survive adverse personal experiences (Hobfall, 1998). However, despite these interesting propositions, it was Czech physiologist, Hans Selye, who is credited with popularizing the term (Viner, 1999). Selye first used the term 'stress' to describe a non-specific physiological defense reaction he noticed during his experiments on laboratory rats (Viner, 1999). Selye completed both a medical and doctoral degree in Prague, and initially worked as a researcher at Johns Hopkins University before continuing his biochemical and endocrinological research at McGill University in 1933. Selye discovered that administering ovarian and placental extracts into rats produced pathological defense mechanisms in the animals and he used the term 'stress' to describe the agents that caused the non- specific defensive reaction, i.e., stress was the *stimulus* causing the adverse reaction (Viner, 1999). Over time, Selye re-conceptualized the signs of bodily damage as the general adaptation syndrome (GAS) and used 'stress' to describe the state incurred by the organism in adapting to the environmental agent, i.e., stress was now the non-specific *response* caused by the GAS. This explanation demonstrated a shared interest at the time with other scientists such as Harvard physiologist Walter B. Cannon, who was interested in stability systems within the body. Cannon, who discovered the theory of organic homeostasis, similarly used the

term ‘stress’ in 1934 to describe external influences that affected homeostatic processes (Viner, 1999).

Since the specific mechanism leading to the defensive reaction could not be observed, Selye’s ideas were rejected by other physiologists who argued that the stress concept was “unobservable, unmeasurable and overly plastic, and therefore not amenable to scientific inquiry by hypothesis testing” (Viner, 1999, p. 396). Undeterred, Selye embarked on a campaign to popularize his ideas. He created his own Institute for Stress Research establishing a research programme at McGill and publishing over 40 books and 1500 articles aimed at both academia and the wider public (Viner, 1999). His international best-seller, *The Stress of Life*, was published in 1956 and “promised happiness and health for all through the pursuit of successful adaptation” and paved the way for modern stress research (Viner, 1999, p. 400).

2.1.1.2 Discourses of stress. Stress is often thought to arise from various difficulties that people might encounter in life. The typical examples include: loss, being overworked, having limited resources or time, experiencing numerous competing demands, juggling too many responsibilities, and having either too little or too much control/ choice (Abbott, 1980; Pollock, 1988; Young, 1980). Researchers have described some consensus between lay and scientific descriptions of stress, suggesting that scientific conceptualizations of stress directly impact lay beliefs, but that they both overlap and mutually reinforce each other (Hobfall, 1998; Mulhall, 1996; Pollock, 1988; Viner, 1999). Donnelly and Long (2003) outlined some of these similarities including the view that excess stress is harmful, that it can lead to physical and psychological illness, that responsibility to manage stress rests with the individual, and that stress is an

inevitable part of modern life where the drive to succeed leaves little time to relax (p. 398). These ideas are seen to reflect dominant Western values of individualism and capitalism (Donnelly & Long, 2003). This tendency to suggest that stress is a normal part of modern life, but too much of it can adversely affect health, while too little will leave individuals feeling "unchallenged" can be seen as an attempt to *problematize* stress (Donnelly & Long, 2003, p. 398). Individuals are placed in the double bind of needing a little bit of stress to motivate them to achieve success, but not so much as to become a problem, or to be seen as unable to manage or control stress. As a result, the authors suggest that the problems associated with stress discourse are due to the emphasis on naturalism, individualism, rationalism, and objectivity (Donnelly & Long, 2003). Stress is seen as naturalized within the body – a reflection of a weakened physical state (for example, which is different than locating stress within a pathogenic society as the locus of the problem). Responsibility for managing stress is seen to be the responsibility of the individual, rather than altering social-structural conditions that engender stress. Stress discourse emphasizes taking 'control' through prioritization, delegation, and learning methods to 'manage' stress, often reflecting cultural ideals of rationalism versus uncontrolled emotionality, which is seen as a weakness (Donnelly & Long, 2003). Finally, stress is often described as an entity that can be identified and measured, and amenable to empirical methods of investigation, yet researchers describe the difficulties in agreeing on the concept that is being measured.

Stress discourse is ripe with metaphors to help describe the phenomenal experience including: a heavy weight pressing down, state of tension such as a taut wire that can snap, the body being "under siege", and a wearing down of "reserves" (Kinman

& Jones, 2005; Pollock, 1988). It has also been described as an external force, an explosive uncontrolled activity, and a machine under pressure (Mulhall, 1996). While these metaphors are predominantly negative, stress was also seen as a potentially positive "motivating force" in the occupational context. Notions of worker productivity (e.g., the stressed individual) are depicted and popularized in the media (Abbott, 1990). Western capitalist ideals are perpetuated by popular images of working late, arriving to work early, and clichés such as "burning the candle at both ends", and the "early bird gets the worm."

The tendency to cite stress as the etiological factor in a variety of physical and mental illnesses is seen as commonplace (Donnelly & Long, 2005; Mulhall, 1996). Stress discourse can often be pathologizing, suggesting a lack of balance or discipline in the individual who is 'stressed' (Becker, 2010). Associations with weakness, lack of resiliency, and not being in control have been documented (Harkness et al., 2005). In sum, the problematic aspects of this discourse include the dilemmatic nature of stress, i.e., a little stress is needed to motivate and spur action, but too much stress is overwhelming and debilitating, and this fine line may be difficult for individuals to determine (Harkness et al., 2005). Stress is conceived of as natural, instinctual, and protective in 'normal' functioning, but can be simultaneously harmful and dangerous when unchecked.

Since Selye's time, stress has been used to explain concerns about Western industrial civilization and capitalist interests in productivity (Hobfall, 1998; Viner, 1999; Young, 1980). Viner (1999) posited that the success of popular notions of stress is due to its appropriation by interest groups that used the stress concept to justify their beliefs.

For example, conservative America and industrialists saw ways to validate personal ambition and capitalism, through increased efficiency and value placed on a strong work ethic (e.g., the stressed worker), while those critical of modern American culture believed stress adequately reflected the deleterious effects of modern industrial civilization (Viner, 1999). Mulhall (1996) suggested that “stress is not only constantly ‘called on’ in contemporary society, but also that it is attached to a morally constructed environment” (p. 464). As a society, we make moral judgments about whether an individual is able to manage his or her stress and maximize the potential of stress to provide motivation for success, while at the same time avoiding stress burnout and resulting illness. It becomes a ‘moral responsibility’ to do our part to contribute to worker productivity and reduce the burden on health care. Sources suggest that up to 60% of Canadian workers suffer from high levels of stress with costs due to absenteeism and medical expenses for stress-related disorders exceeding two billion dollars annually (reviewed in Naylor, 2008). Stress levels are depicted as being on the rise among Canada’s workforce, particularly with older adults, known as the ‘sandwich generation’, who may be staying in the workforce longer to provide for older children living at home and aging parents at the same time (Naylor, 2008; Sharratt, 2005).

2.1.2 Depression concept. Depression is a popular term that has been used to refer to everything from an occasional bad day to a potentially severe mental illness requiring psychiatric intervention. It has been viewed as a non-specific *symptom* in a number of illnesses, a *syndrome* with a specific clinical presentation, and a medical *condition* in its own right that warrants treatment (Jackson, 1986). It has also been defined as a *mood*, *affect* or *emotion* that reflects a dejected state (Jackson, 1986).

Reactive sadness in response to grief, loss, trauma or disappointment is seen as an expected and appropriate response, as long as it is resolved within a timely fashion. The labels 'major depression' or 'clinical depression' are often reserved for the more severe and persistent form of mood disturbance that negatively impacts daily functioning. Differentiating what constitutes depressive illness is a judgment call based on symptom severity and impact on daily functioning. As Jackson (1986) stated, "to be melancholic or depressed is not necessarily to be mentally ill or in a pathological state" (p. 4) and thus, demarcating what constitutes the clinical condition becomes an important endeavour with significant repercussions for those who are labeled in this way.

Within the scientific literature, depression is conceptualized as a psychiatric condition and diagnosis is based on specific symptom presentation. In particular, the presence of low mood or loss of interest or pleasure in activities for at least a two week period, along with other symptoms (e.g., sleep disturbances, weight fluctuations, loss of energy, feelings of worthlessness or excessive guilt, etc.) as outlined by the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders, currently characterize the disorder (American Psychiatric Association, 2013). This change in mood should represent a shift from the individual's previous functioning and cause clinically significant distress or impairment in important areas of functioning to meet the requirements for diagnosis (American Psychiatric Association, 2013). Depression is viewed as a serious mental illness affecting roughly 1 in 5 women and 1 in 10 men (Kessler, Berglund, Demler, Jin, & Walters, 2005; Schotte, Van Den Bossche, De Doncker, Claes, & Cosyns, 2006). According to this conceptualization, the worldwide burden of illness due to depression is forecasted to rank second among global diseases by

the year 2020 (McKenna, Michaud, Murray & Marks, 2005; Murray & Lopez, 1997). Naylor (2008) summarized studies citing mental health issues in the majority of work-related long term disability claims, with estimates of depression in almost 20% of Canadian employees.

While some have suggested that those suffering from moderate to severe depression remain under-treated in both primary care and specialist mental health services (Kramer, Beaudin & Thrush, 2005; Mojtabai & Olfson, 2006; Schotte et al., 2006), others have argued that many individuals are over-diagnosed and over-medicated in response to normal reactions to adversity (Barber, 2008; Gardner, 2003; Horwitz & Wakefield, 2007). As such, it has been a priority for mental health researchers to aid in the identification of those most at risk for developing the disorder. It has been important to understand causal mechanisms in the development of depression and stress has been added to the list of potential factors playing an etiological role. It is this narrower clinical definition that will be used in the literature review as it provides a means of ensuring uniformity in what is referred to as 'depression'.

2.1.2.1 History of the term 'depression'. Jackson (1986) traced the clinical syndrome of melancholia and depression over two millennia from ancient Greece and Rome through Medieval Times, the Renaissance, and from the seventeenth to the twentieth century to conclude that there are surprising similarities in the symptomatic description of depression, despite the variations across time and culture. *Melancholia* was the Latin term initially derived from the Greek word for a mental disorder of fear and depression. It began to appear in English writing in the fourteenth century from the Latin word for *black bile* (Jackson, 1986). Efforts to explain the etiology of depression

reflected the dominant theories of medicine at the time. As part of the four humors (i.e., blood, yellow bile, phlegm, and black bile) in the humoral theory of illness that was widely accepted in the latter part of the fifth century B.C., melancholia was etiologically linked to an excess of black bile in the body (Jackson, 1986). By the time of the Renaissance, melancholia was also seen as the character trait of the gifted, rather than just as an illness, and the term became popularized to reflect "almost any state of sorrow, dejection, or despair, not to mention respected somberness and fashionable sadness" (Jackson, 1986, p. 5). This generalization in the usage of the term is similar to how it is used today, although one could argue that while some associate it with genius or creativity (Wilson, 2008), it is more often seen as an undesirable, rather than a fashionable position, particularly for women (Lafrance, 2009; McMullen, 1999).

The term *depression* began to appear in the seventeenth century and is derived from the Latin *de* (down from), *premere* (to press), and *deprimere* (to press down) to convey the sense of being pressed down upon or brought down in status or fortune (Jackson, 1986, p. 5). The use of the term began to increase in literary and medical contexts by the nineteenth century. In the 1880's, Emil Kraeplin continued to use the term *melancholia* for the clinical state of dejection, but began to use the term *depressive insanity*, using *depression* to describe affect rather than mood (Jackson, 1986). The use of the term *depression* was likely supported by Kraeplin's introduction of the term *manic-depressive insanity* in 1899 which was found in classification schemes for mental disorders (Jackson, 1986). This shift towards using the term *depression* rather than *melancholia* was further supported by Adolf Meyer who encouraged replacing the outdated term in a report in 1904 (Jackson, 1986). Although used less often, the term

melancholia is included as a subtype of a major depressive episode that suggests a more severe form of the disorder, similar to the previously used conception of *endogenous depression* (Jackson, 1986, p. 7).

2.1.2.2 Discourses of depression. Within the contemporary fields of psychology and psychiatry, depression is often conceived of as a brain disorder. However, historical explanatory discourses also described it as being caused by the spirits or gods, an imbalance of bodily humours, the result of a weak faith, or the quality of gifted individuals (Jackson, 1986). These discourses are shaped by prevailing thoughts and theories of the day. Currently, the biomedical frame of depression, notably its characterization as a neurochemical disorder, prevails and leads to an increasing 'neuromolecular gaze' (Abi-Rached & Rose, 2010). This view conceives of mental distress as due to a biological brain dysfunction, leading researchers to investigate smaller neuromolecular units of interest. This has led some critics to state that this enterprise represents an extreme form of neurobiological reductionism (Abi-Rached & Rose, 2010). This view of depression as a neurochemical disorder has implications for subjectivity as individuals take up the biomedical discourse themselves in constructing their experiences (Lafrance, 2007). However, a shortcoming of this view is that there is still no definitive biomedical test that can confirm the presence of the disorder to legitimize and validate it as a medical disorder (Lafrance, 2007). Feminist scholarship on this topic argues that medicalized constructions of female depression, in particular, represent a form of disciplinary control over women's bodies in which women's bodies are constructed as defective, eliding the cultural, social, and political factors that contributed to their depressive experiences (Hurt, 2007; Lafrance, 2009). In this short

review thus far, an argument has been made for considering the historical, social, and cultural functions of the stress and depression discourses. In the next section, I examine the nexus of stress and depression by focusing on how these terms have been constructed in the bulk of the scientific literature. It is here where the majority of stress and depression studies have been completed, and the relation of stress and depression has been suggested.

2.2 Constructions of the Relation of Stress and Depression

2.2.1 Scientific Discourse

2.2.1.1 Biopsychosocial approach. Within scientific discourse, explanatory models for depression have focused on specific factors that confer vulnerability to the development of depression. These include *biological* factors (e.g., genetic, neurochemical), *psychological* factors such as personality (e.g., temperament) and cognition (e.g., attribution, appraisal), and *social* factors (e.g., early environment, culture) that have been combined in a multifactorial *biopsychosocial* model of illness development (reviewed in Schotte et al., 2006; van Praag, de Kloat, & van Os, 2004). This academic approach involves searching for vulnerability factors that predispose certain individuals to develop depression following stressful life experiences while others remain immune to the effects of stress. An underlying diathesis-stress conceptualization of illness posits that characteristics *within* individuals confer vulnerability to the development of depression in the presence of stressful life events (Schotte et al., 2006).

This type of research has the effect of *naturalizing* depression, such that it is seen as “a naturally occurring pathology existing within the sufferer, which can be objectively

defined and measured" (Ussher, 2010, p. 10). This conceptualization places the onus for seeking treatment on the 'sufferer' as this is where the pathology is believed to reside. By bounding the illness within the individual, social conditions contributing to distress are not evaluated (Becker, 2010; Young, 1980). While the research employs all three definitions of stress described earlier, it renders the specific relation of stress and depression problematic. If depression is naturalized within the body, stress can likewise be "naturalized by locating it in nature rather than society, and somatized by locating it in the individual rather than his social relationships" (Young, 1980, p. 144). Thus, stress, like depression, is seen as located within the body and responsible for the development of physical and psychological illness, for which the individual is responsible (Young, 1980).

2.2.1.2 Biomedical approach. Medical disciplines such as psychiatry primarily adopt a biomedical view of illness, although more recently, the biopsychosocial framework indicated above has been growing in popularity among health disciplines (Suls & Rothman, 2004). 'Biomedical' is defined here as the dominant medical conception which "considers illness and disease to be located in the individual and views treatment as predominantly surgical or pharmacological. This paradigm explains disease mostly by mechanical causality and with reference to explanatory models as close to the molecular level as possible" (File, 2004, p. 1276). This shift in psychiatry from an earlier psychoanalytic tradition to the present dominance of 'biological psychiatry' was heralded by a greater understanding of the brain, pharmacology, and neurobiological mechanisms in mental illness (Shorter, 1997).

The understanding of the biological response to stress has increased in large part to advances in clinical knowledge of the hypothalamic-pituitary-adrenal axis (e.g., de

Kloet, Joels, & Holsboer, 2005; Ilgen & Hutchison, 2005; McEwen, 2000). In particular, the role of stress in the etiology of depression is supported by studies documenting disturbances in the hypothalamic-pituitary-adrenal (HPA) axis of depressed individuals (e.g., nonsuppression to dexamethasone, early life trauma related to persistent corticotrophin releasing factor (CRF) neuronal hyperactivity, hypersecretion of CRF in response to stress), abnormalities of the serotonin and norepinephrine neurotransmitter systems, with prolonged activation of the HPA axis posing health risks (e.g., Gold & Chrousos, 2002; McEwen, 2000; see review in van Praag, de Kloat, & van Os, 2004). Similarly, treatments for depression (i.e., antidepressants) are said to improve HPA axis function, alter CRF secretion, and regulate noradrenergic and serotonergic function, thereby improving symptom severity (McEwen, 2000). This evidence points to the cascade of biological effects related to stress that subserve mood and anxiety symptoms.

While the role of stress in developing depression has been intuitively assumed for a long time, despite the growing neurobiological literature, clear causal mechanisms linking stress to depression have yet to be definitively established in scientific discourse. Difficulties in determining a clear causal link include varying definitions of stress, blurred boundaries between clinical depression and reactive sadness along a continuum of distress, and methodological and epistemological issues plaguing research approaches that limit the understanding of this relation (Abbott, 1990; van Praag, de Kloet, & van Os, 2004). Despite these concerns, the literature on the association between stress and depression has continued to proliferate, with little attention paid to critically examining the discourse that is being amassed. This research tradition has had the effect of *medicalizing* distress by assigning medical terminology and pathologizing unhappiness

(Lafrance, 2007). The process of medicalization increases diagnosing and prescribing practices that label people as depressed and treats them with medication (Gardner, 2003). Strictly adhering to the medicalized notions of pathology may fail to highlight important aspects in the expression of distress and does not "deal with the context of our observation as contributing to what we observe" (Littlewood, 2002, p.23). Obeyesekere (1985) provided an alternative framework in which the larger "work of culture" is used to transform painful personal affects into publicly accepted symbols to transcend personal distress. If depression is our modern, culturally sanctioned way of expressing distress in relation to the stress of our daily lives, can we increase its emancipatory potential by removing its stigmatizing label and attendant feelings of personal failure and responsibility?

2.2.1.3 Social approach. In 1967, two American psychologists used Selye's concepts to quantify stress as a means to understand mental and physical adaptation to the environment (Viner, 1999). Thomas H. Holmes and Richard H. Rahe were the first to quantify stress using life event scales, such as the Schedule of Recent Experiences (SRE) and the Social Readjustment Rating Scale (SRRS) (Monroe, 2008). These types of scales were well received in academic psychology and triggered widespread research activities aimed at exploring the relation between stress and many different diseases, particularly in relation to specific adverse life experiences and the availability of social support (Viner, 1999). These checklists surveyed a range of common experiences that required adjustment, and were thus seen as potentially significant in terms of stress (Monroe, 2008). Mazure (1998) summarized early research findings using life event interviews which found higher levels of stressors prior to the onset of a major depressive episode in

clinical samples compared to controls, in which 80% of cases with depression were preceded by major life events.

Life event research has also been critiqued for its seemingly arbitrary inclusion of ‘stressors’. Critics have identified the difficulty in defining stressors in advance, as the stressful nature of any event is believed to rest on the meaning an individual gives to it (Pollock, 1988). As well, these studies are believed to lack specificity as an association can be found with life events and *any* illness. The timing between the occurrence of the life event and the developing illness is also seen as arbitrary, as preceding events and outcomes are sometimes confounded. Consequently, establishing reliable and valid measures of ‘stressors’ is difficult (Dohrenwend, 2006). Considerable variability exists in the definition, perceived severity, incidence, timing, recall, and interpretation of stressors. While this variability is not seen as problematic within a social constructionist epistemology, it poses challenges for researchers searching for ‘objective’ truth about the stress-depression relation.

2.2.2 Epistemological Assumptions of Stress Research

Despite the knowledge offered by the empirical studies of stress, they are constrained by the status of knowledge they purport to access. Most of the empirical literature on the relation of stress and depression is founded on realist ontology with an objectivist epistemology. “Objectivism is the epistemological view that things exist as meaningful entities independently of consciousness and experience, that they have truth and meaning residing in them as ‘objects’” (Crotty, 1998, p. 5). The studies based in this framework use methodologies consistent with a post-positivist theoretical perspective.

While positivism posits accurate knowledge of the world through empirical methods, post-positivism claims an approximation of objectivity rather than absolute objectivity, using the language of probability rather than certainty (Crotty, 1998). This approach entails searching for isolable factors relevant to depression. While this approach has produced much of the scientific and psychiatric knowledge currently known about stress and depression, it has become the "received view" in psychiatry (Littlewood, 2002). For example, we no longer question if this discourse, influenced heavily by biomedical explanations of illness, might limit our understanding of the relation between stress and depression. "Biomedical discourse dominates, not because it (or any other regime for that matter) offers objective truth, but because of its power to construct its particular version of reality" (Foucault, 1980, as cited in Lafrance, 2007, p. 128). At best, these empirical studies are able to demonstrate strong associations between variables, with their attendant goals of measurement and prediction, but not causation.

Critiques of stress studies from within the ranks of academic researchers fail to consider how the objectivist epistemology adopted, and the post-positivist approaches consistent with them, influence and constrain the knowledge claims one can make. These areas of research highlight psychology's tendency to privilege individual over social factors, by focusing on an individual's perceptions (*interactional model*) or biological reactions (*response model*) to the environment. As an example, Hammen (2005) highlighted the methodological issues in using life event checklist items and ratings of stress severity as they "reflect subjective, idiosyncratic meanings and judgments that are affected and possibly biased by the emotional state of the person, and each item could have personal meanings that would vary from person to person" (p. 295). First, this

suggests that obtaining subjective, highly personal meanings is a problematic endeavour in the first place and does not consider the benefit or value inherent in obtaining this type of knowledge. Second, the statement implies that if methodological rigour could only be obtained, that a "true" objective measure of life stress could be collected. Third, by implication, it assumes that the research enterprise itself is not subjective in nature. The research questions posed, the topics that stimulate research (and receive grant funding), and the procedures considered appropriate for acquiring knowledge reflect values, whether or not they are made explicit. Young (1980) asserted that the abstract concept of stress is given ontological reality through this epistemology and suggests that social life is objectified through life event analysis.

2.2.3 Hegemony of the Biomedical Model

Studies have documented the hegemony of biomedical discourse in illness conceptualization. The concept of hegemony was first described by Antonio Gramsci and is defined as the means by which "a way of life and ways of thinking and understanding become dominant in social formation. A project becomes hegemonic when its view of reality pervades all the different layers of a given society, namely, its institutions, its private life, its morality" (File, 2004, p. 1276). Despite the inconsistencies in the research literature, the ability to create and promote biomedical theories reflects the power of this discourse to affect how individuals view depression and its antecedents. Zola (1972) stated that:

> Medicine is becoming a major institution of social control, nudging aside, if not incorporating, the more traditional institutions of religion and law. It is becoming the new repository of truth, the place where absolute and often final judgments are

> made by supposedly morally neutral and objective experts…in the name of health (p. 487; as cited by File, 2004, p. 1277).

Within this view, depressive psychopathology is believed to reside *within* the individual, while larger contextual factors related to illness expression, such as social and political conditions, remain virtually unaddressed (McMullen & Stoppard, 2006; Stoppard, 1999). For example, Blum and Stracuzzi (2004) examined popular periodicals and found that they employed a biomedical model to present depression as a context free problem, located within the individual. Gardner (2003) examined consumer depression manuals to show how inconsistencies in scientific research are glossed over in presenting depression as an illness with a known, singular cause (i.e., neurochemical imbalance). These studies critically examine how the biomedical model removes the social, historical, and political conditions contributing to illness expression.

Studies have also examined how biomedical understandings are drawn upon in accounting for depressive illness (Lafrance, 2007). Using discursive analysis, Lafrance (2007) found that women used their diagnosis and the comparison of depression to a physical illness to validate their pain and legitimate their identity. However, this legitimization process was found to be on shaky ground since the absence of physical evidence to confirm the biological "reality" of their condition (i.e., a visible injury or a positive medical test result) was not available to firmly situate their distress within a biomedical frame (Lafrance, 2007). In another study examining the experiences of family physicians in providing care to depressed women, stress arising in the context of the women's lives was perceived by the physicians as being a precipitant for depression (Stoppard, Thomas-MacLean, Miedema, & Tatemichi, 2008). In particular, physicians described stress arising from family roles (e.g., responsibilities related to providing care),

gender specific stress (e.g., lower income, domestic abuse) and practical sources of stress (e.g., lack of resources such as child care, transportation) as contributing to the depression seen in their patients. Although the physicians understood the need to address these concerns, they acknowledged their limitations in being able to do so.

Scholars have challenged this individualized, medicalized approach to stress and depression to consider other important features of these discourses. For example, within the stress discourse, women are instructed to find 'balance' in their lives by 'working' on themselves so that they can continue to uphold their obligations to others both inside and outside the home, rather than upsetting the status quo and redistributing unfair expectations (Becker, 2010). This notion of 'working' on oneself is another common meeting point for both the stress and depression discourses. Petersen (2011) argued that contemporary rising rates of depression reflect the normative demand for 'authentic self-realization', which can be seen as a chronic stress factor as there is no guide to help facilitate this realization. People are continually expected to view themselves as 'projects of self-improvement', against which their happiness is judged insofar as their ability to achieve this state. If they fail, "depression becomes a social pathology of action and inadequacy, in which the individual suffers from an inability to initiate authentic self-realization" (Petersen, 2011, p. 17). These kinds of arguments suggest that the relation between stress and depression is complex. If individuals perceiving stress in their lives access public self-help websites to obtain assistance, it is important to know how the language of the site constructs the relation of stress and depression.

2.3 Health Information on the Internet

2.3.1 Seeking Health Information Online

The Internet is increasingly becoming a favored method of obtaining health-related information with access to over 100,000 health-related websites available with the click of a mouse (Bell, 2007; Morahan-Martin & Anderson, 2000; Morahan-Martin, 2004). According to the Pew Internet Survey (2013), 35% of American adults have gone online to find out information about a medical condition, and of these individuals, approximately half followed up with a visit to a medical professional. Eight out of ten online health inquiries started at a search engine (Pew Internet Survey, 2013). The advantages of using the Internet to obtain health-related information include its speed of information delivery, privacy for users, recency in terms of providing the most up-to-date information and ease of use for a computer literate populace (Bell, 2007; Griffiths, Farrer & Christensen, 2007; Lamberg, 2003). Morahan-Martin's (2004) review of online health-seeking behaviour documented that individuals typically use general search engines to find information (e.g., Google, Yahoo), enter simple terms that are sometimes misspelled, rarely search beyond the first page of search results, and judge the credibility of health care information by factors such as professional layout, citation of scientific references, understandable and professional writing that appeared sanctioned by official authorities. Google is still the number one search engine for finding information and has half of the American market share in Internet searching, with a revenue of $236.5 billion in 2009 (Google, 2010). 96.7% of Google's total revenue comes from advertising (Google, 2010). Google's personalized search strategies allow advertisers to target consumers with specific products or services based on their inputted searches (Kang &

McAllister, 2011). Given that many users might not be aware of commercial interests online or search engine technology, it might be challenging to determine if an online source is credible and authoritative, highlighting the need to critically evaluate these websites for the types of discourses they employ.

The Internet has led to the democratization of information as anyone interested in a topic can search for material or present information themselves, independent of traditional gatekeepers of knowledge such as higher institutions of learning (Bell, 2007). The drawback, of course, is that some of the information available is of dubious quality and sources may be difficult to identify (Bell, 2007; Morahan-Martin & Anderson, 2000; Morahan-Martin, 2004). In response to the demand for accurate health information, initiatives have been developed for assessing the quality of health websites. For example, the Health On the Net (HON) Foundation has developed the HON code to assess websites on eight criteria: clear authorship, complementarity with medical treatment, privacy of client information, clear referencing of information sources, justifiability of claims, transparency of editors and webmasters, financial disclosure of website funding sources (e.g., by pharmaceutical companies), and clear advertising and sponsorship policies (Boyer, Gaudinat, Baujard & Geissbuhler, 2007). While this represents a step forward in at least attempting to provide quality control on the Internet, by now the argument should be clear that adhering to these standards alone does not necessarily legitimate the information provided, as science and biomedicine have their own biases and agendas. The major implication from recent evaluations of online information is that clinicians should become more aware of the types and sources of information available online and be knowledgeable enough to recommend better quality online resources as

clients frequently present information obtained online to their clinicians and are influenced by the material they review in terms of their own health decisions and those of close family and friends (Bell, 2007; Morahan-Martin, 2004).

2.3.2 The Example of Self-Help Websites

In addition to numerous online interventions such as online counselling (e.g., e-therapy), support groups, chatrooms, and automated cognitive-behavioural treatments (e.g., MoodGYM, Mastering My Life), self-help websites have emerged as another vehicle for individuals to learn about health issues online (Barak, Hen, Boniel-Nissim, & Shapira, 2008; Griffiths, Farrer & Christensen, 2007; Lamberg, 2003). While some sites retain static pages that function similarly to bibliotherapy, others have become increasingly complex in involving interactive exercises, diagnostic tests, and access to "online experts" to assist in managing stress and depression (Griffiths, Farrer & Christensen, 2007; Hickie, Davenport, Scott, & Morgan, 2002). One way of exploring public discourses about the relation of stress and depression is to examine the language of self-help websites designed to assist individuals with managing these 'conditions'. In adopting a critical stance toward these websites, it is possible to explore the potential impact of this online construction for website users. This type of endeavour is important in assisting website users to view this online information more critically, particularly as it relates to decisions about their health.

2.3.3 Health and Media

Seale (2003) suggested that studying health and media is important in understanding how mass mediated knowledge of health and illness becomes constructed.

What gets told and *how* reveal important cultural constructions "of what it is like to be sick, what causes illness, health and cure, how health care providers behave (or ought to) and the nature of health policies and their impact" (Seale, 2003, p. 514). In understanding the structure of media processes, it is possible to see that producers of mass mediated information control what is revealed (and what is kept hidden) to fulfill particular agendas (Seale, 2003). Seale (2003) outlined three branches of media studies: production, representation, and reception. Production studies investigate the behaviour of producers of media messages and the political and economic interests influencing how they deliver messages. Representational studies examine the media messages themselves to examine discursive strategies, ideological effects, and dominant constructions of health and illness by investigating linguistic, narrative, or semiotic conventions used in the messages. Finally, reception studies focus on media audiences, which can include media producers, politicians, health professionals, and lay people, to examine how they relate to mass mediated messages. The current study is an example of the second strand of media studies focusing on messages themselves, by examining how the self-help website text constructs 'stress' and 'depression'. Seale (2003) suggested that Internet research will be an important addition to traditional media studies as it represents the future of how health information is transmitted.

2.3.4 Critical Internet Studies

Research on health representations on the Internet has been criticized for focusing exclusively on "(medically-defined) accuracy and quality" rather than the more commonly employed critical sociological analyses seen in studies of 'old' media, such as television, magazines, etc. (Seale, 2005, p. 515). Very few studies focus on critically

examining representations of health and illness on the Internet. Seale (2005) examined gendered cancer experiences represented on the web and found them to be surprisingly similar to conventional media sources. He concluded that rather than providing the anticipated diverse health perspectives possible with the Internet, larger institutions (e.g., representing governmental, medical or the voluntary sector) strengthened their web presence by capitalizing on search engine technology that allows them to link with mainstream health sites promoting media convergence in information. These mainstream sites are often associated with institutional interests and account for a more permanent presence on the web than independent personal home pages that might provide a diversity of perspectives. The politics of search engine technology have been examined to reveal that web site producers seek to be indexed by popular search engines such as Google since being ranked above the top 20 hits increases the likelihood of being noticed by 'unsophisticated' website users (Introna & Nissenbaum, 2000).

While media may be responsible for perpetuating popular metaphors and images of stress, the idea of self-management that assigns responsibility to the individual to manage stress and any resulting illness is endorsed by academic studies and stress "authorities" (Kinman & Jones, 2005). In the case of depression, Gardner (2007) employed a critical feminist, poststructuralist approach in describing the discourse of Web campaigns. She suggested that they promote "the cultural obsession with self-management" by emphasizing the need to self-monitor moods, control negative thoughts, engage in appropriate self-care (e.g., through exercise and healthy eating), and of course, seeking pharmacotherapy when needed (Gardner, 2007, p. 541). These campaigns highlighted the individual change in behaviour that is needed to manage depression rather

than examining broader structural or social factors contributing to the illness by using discourse that "calls upon the will to fix the brain in order to manage the social" (Gardner, 2007, p. 546). In light of the fact that scholars have identified stress and depression as naturalized, medicalized, and problematized, the connections drawn between stress and depression are variable. The current research aims to examine discourses of stress and depression, as they are constructed online, to explore the implications of these constructions for website users.

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Chapter 3: Methodology, Epistemology, and Method

3.1 Discourse Analysis

Discourse analysis (DA) is an umbrella term used to describe research examining language in its social context (Potter & Wetherell, 1987). This research approach has been used in numerous disciplines (e.g., sociology, anthropology, linguistics, literary studies, psychology) and can employ different theoretical perspectives and methods in the study of language which can sometimes bear little resemblance to each other (Parker, 1992; Potter & Wetherell, 1987). Thus, it is important to clarify one's theoretical stance towards language. In the current research, language is not simply seen as a descriptive device for people to express their 'inner selves' or to refer to objects 'out there' in the 'real' world; rather, language is seen as a form of social action in which knowledge is constructed through the daily interactions between people (Burr, 1995; Potter & Wetherell, 1987). This *constitutive* view of language suggests that *how* people interact with each other is important to understanding how our world is constructed (Burr, 1995; Fairclough, 1992; Potter & Wetherell, 1987). This view contrasts with the *representational* view, which posits that language reflects the essences of the world. Rather than focusing on the nature or 'essence' of people or the world at large that needs to be *revealed* through language, attention is directed instead towards the historical and cultural specificity of all forms of knowledge and how current understandings have been developed and maintained *through* social interactions (Burr, 1995). This framework moves away from strictly *essentialist* (belief in innate discoverable natures) or *realist* (belief in an objective reality that can be perceived) approaches to the research endeavour

(Crotty, 1998; Gergen, 1985). It is important to emphasize that this approach does not deny that reality exists, but rather insists that it is socially constructed (Burr, 1995).

3.1.1 Epistemological and ontological assumptions. Social constructionism as an epistemological framework provides a different way of viewing social phenomena and represents a departure from traditional social psychological research employing positivist methods. While interdisciplinary studies have increasingly employed mixed method research designs in order to answer research questions suited to different epistemological positions, the current research questions are best answered within a social constructionist epistemology. In addition to the characteristics of anti-essentialism, anti-realism, focus on social action and the historical/ cultural specificity of knowledge indicated above, it is useful to understand how language is viewed as a pre-condition for thought in this approach (Burr, 1995). More specifically, people are believed to enter a world where certain conceptual frameworks are already in existence and are thus acquired as people learn language (Burr, 1995). This is not to suggest that these categories are fixed and static. Rather, they are believed to be reproduced by individuals who share a culture. Thus, *how* people think is influenced by the conceptual frameworks available to them and is shaped by the language used, which is different than the traditional view of language as an expression of thoughts, beliefs, or attitudes residing *inside* the person (Burr, 1995).

Burr (1995) also further clarified the common misconception that social constructionism favors the ‘nurture’ side of the nature/ nurture debate. She suggested that believing that a person is affected by his or her environmental surroundings is just as essentialist as the belief that one is a product of biology (the ‘nature’ argument). Both of these perspectives support the belief that one has a “definable and discoverable nature,

whether given by biology or by the environment, and as such cannot be called social constructionist" (Burr, 1995, p. 6). The focus of investigation is no longer on the nature of people (i.e., what a person *has*) as revealed in language, but how certain forms of knowledge are constructed in social interaction (i.e., what people *do*) through language (Burr, 1995, p.8). This epistemological framework is based on a relativist ontological position in which multiple realities are believed to co-exist simultaneously.

3.1.2 Defining 'discourse'. For the current research, I combine two definitions provided by key DA authors to define 'discourse' broadly as "all forms of spoken interaction, formal and informal, and written texts of all kinds" (Potter & Wetherell, 1987, p. 7) which contain "a system of statements which constructs an object" (Parker, 1992, p. 5). This definition captures how both spoken and written language is used to produce a particular version of an object. The 'object', in this case, can be anything that is the focus of investigation. While this does not deny that other representations or versions are possible, a 'discourse' is tied together by texts that provide the same conceptual framework for understanding the object in question in a particular way (Burr, 1995). DA authors vary in their emphasis in the amount of detailed analysis required of the discourse (Woods, 2006). Some researchers focus more on the action orientation of the discourse and what is accomplished through 'interpretative repertoires' which are "recurrently used systems of terms used for characterizing and evaluating action, events and other phenomena" (Potter & Wetherell, 1987, p. 149). In other words, there are systematic ways to talk about a topic that can perform certain functions, whether they are intentional or not (Harper, 2006). Other discourse analysts may use a more 'top-down' or macro level of analysis rather than 'bottom up' approach (Woods, 2006). This work is

influenced by post-structuralists such as Foucault who views discourses as situated within historical contexts and intimately acquainted with power relations that support various institutions (e.g., legal, medical) (e.g., 1980). This approach examines the cultural and historical specificity of discourse to construct specific phenomena that may serve social, ideological, and political interests (Parker, 1992; Willig, 1999). In practice, researchers often combine these approaches and conduct textually oriented discourse analysis that is also sensitive to various power structures within discourse (Fairclough, 1992).

3.1.3 Defining 'text'. 'Text' can be further defined as a meaningful unit of language that is situated in context and combined to form a particular discourse (Parker, 1992). The text of interest in the current context is the written material found on self-help websites. Discourse analysis encourages viewing text in a more critical manner to determine how language is used to construct a particular version of the world. As Parker (1992) states, "when discourse analysts read texts they are continually putting what they read into quotation marks: 'Why was this said, and not that? Why these words, and where do the connotations of the words fit with different ways of talking about the world?'" (p. 3). I am interested in how the text of self-help websites is used to construct the relation of stress and depression. Aspects of language such as words, sentences, and various linguistic devices are not seen as exclusive to any single discourse, but rely on the discursive context to create a conceptual framework for understanding (Burr, 1995), providing its "interpretative gloss" (Parker, 1992, p. 6).

The current research is particularly interested in the performative and constructive effects of a discourse, that is, *how* the discourse creates a particular version of the 'object' in question (Parker, 1992). Because various versions are possible through language,

“there may be a variety of different discourses, each with a different story to tell about the object in question, a different way of representing it to the world” (Burr, 1995, p.48). While this postmodern approach favors relativism, the critical stance taken in this research argues that some forms of knowledge appear to be accepted more readily than others and thus serve political and ideological functions (Burr, 1995; Potter & Wetherell, 1987).

3.2 Method

3.2.1 Data Access and Selection

The data generated for this study are from a naturalistic record, which is a source that already exists independent of the researcher (Potter & Hepburn, 2005). The website text was judged to be an appropriate place to access data as it provides an example of discourse in the public domain related to stress and depression. As indicated earlier, people are increasingly using the Internet to find ways to manage mental health issues (Morahan-Martin, 2004), especially in light of the difficulties in gaining entrance to specialist mental health care (Wolf & Hopko, 2007).

I began data collection by entering relevant terms using the Google search engine, as this is primarily the way that website users access online information on a particular topic. In particular, I entered terms such as ‘stress’, ‘depression’, and ‘self-help’. I reviewed the search results and focused on sites where the stated goal was to provide assistance with the self-management of symptoms of stress and depression. I kept a log of relative rankings returned from the search strategy. I focused my analysis on the top ten ranked websites as individuals searching online are found to rarely search beyond the

first page of results. I focused specifically on instances where stress and depression are mentioned together in the text of the website material. I accessed websites using a sequential approach and ceased data collection when website information began to overlap in terms of the information presented (i.e., little new information was being contributed to the analysis from subsequent sites). Necessitating an endpoint in data collection does not mean additional analyses could not have been performed with different analytical foci, only that website information relevant to my research questions were starting to overlap.

3.2.2 Data Analysis

As online information changes frequently, and website material may be updated or revised regularly, I kept a chronological record of when specific websites were accessed for analysis. Appendix A provides a list of the top ten websites returned as the result of specific search terms, the specific web pages accessed, and the date of access. As well, I kept a log of the dates when the websites were visited further to examine any changes made in the interim. At the time of access, I printed the website material in order to have a hard copy of the text for further analysis. I also saved an electronic version in order to make numerous copies of the printed material for subsequent analysis.

A single main hard copy and an additional electronic copy (i.e., on a flash drive) were retained in their totality and kept in a separate location as a reference source. Each website used in this study has its own file containing the complete printed textual material, along with an electronic version. In addition, multiple remaining copies were imported into a word processing file to enable me to easily identify and extract relevant

extracts of text for subsequent analysis. As analysis proceeded, text fragments that were grouped together conceptually were copied to specific analytic clusters using cut and paste features of the word processing program. This categorization was a form of data reduction that facilitated further analysis (Potter, 2003). These were contained in separate analytic files to facilitate easy retrieval in subsequent sessions of analysis.

I began analysis by noting instances in the text where ‘stress’ and ‘depression’ were mentioned, paying particular attention to how the discourse constructed the relation between the terms. I restricted my analysis to the parts of the text related to these two concepts together. To explore heterogeneity in the type of textual material submitted for analysis, I examined text from different sections of each website. For example, sections related to question and answer segments, personal testimonials, and interviews with “experts.”

I immersed myself in the textual data through multiple readings of the material. I read these textual fragments repeatedly while exploring patterns within and across different instances of text. During the analysis, I concentrated on conceptualizing how these segments bore on my research questions by focusing on the details, functions, and features of the talk located in the text (e.g., grammatical elements, semantics, appearance, location, structure). I examined what was said, how it was said, the functions suggested, and the actions implied in the text. By examining discursive features, I looked for any commonalities and variabilities across the different fragments of text, paying attention to what was missing, as much as what was present, and the multiple functions that the text can perform, along with employing various analytic strategies such as substitution, reframing, and attending to aspects of content (Wood & Kroger, 2000).

I cycled between the text and my emerging conceptualizations in an iterative process. As new conceptualizations emerged, I attempted to separate selected fragments from their respective locations to see how well they stood alone, and in combination with other isolated fragments from other site locations. My goal was to determine how well my generated analyses "cohered" across the different instances of text and to note my reactions to the text (Stiles, 1993). In general, I examined how particular discursive features were used, under what context, and what use or function they performed in the text (Wood & Kroger, 2000).

My commentary was supported by direct text fragments and my interpretations aimed for complexity in analysis and comprehensiveness in my discussion. I moved beyond simply listing themes or categories to explicating relations among parts of the analysis in an integrated manner. The discourse analytic approach I took made claims about how the text of these sites accomplished the work of constructing the relation of stress and depression. I examined what messages were implied in the text. I supported my arguments by providing examples rooted in specific segments of text from the websites to highlight how I arrived at my analytical conclusions. I discussed the implication of my analysis for the changes needed to broaden current conceptualizations of the relation of stress and depression.

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Chapter 4

Manuscript 1: Constructing the Relation of Stress and Depression on Self-Help Websites: How the Online Text Captures Every Eventuality

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4.1 Introduction

The Internet has rapidly increased our ability to access health-related information in an unprecedented manner. As such, research in this area has spanned vast areas of scholarship including examining health representations online (Gardner, 2007; Seale, 2005), quality and accuracy of website health information (Boyer, Gaudinat, Baujard, & Geissbuhler, 2007; Lissman & Boehnlein, 2001), user search behavior (Eysenbach & Kohler, 2002; Morahan-Martin, 2004; Nettleton, Burrows, & O'Malley, 2005), politics of search engines (Diaz, 2008; Granka, 2010; Introna & Nissenbaum, 2000), construction of media audiences (Bermejo, 2009), and online advertising (Faber, Lee, & Nan, 2004) to name a few. Despite the scope and volume of this research, there have been calls for more critical Internet studies that examine how the Internet shapes and constrains the process of obtaining health information online (Seale, 2005).

Of the numerous mental health topics that can be explored online, stress and depression have permeated public consciousness for their perceived deleterious effects on worker productivity, overall well-being, and co-morbidity with other mental and physical health conditions (Donnelly & Long, 2003; Grippo & Johnson, 2009; Mulhall, 1996; Pollock, 1988). According to the Canadian Community Health Survey: Mental Health and Well-being conducted in 2002, approximately 1 million adults, aged 18 or older, had experienced a major depressive episode in the year before the survey interview (Shields, 2006). Globally, depression is often cited as a serious condition forecasted to rank second as a leading cause of worldwide burden of illness among global diseases by the year 2020 (McKenna, Michaud, Murray & Marks, 2005; Murray & Lopez, 1997). Prevalence studies of depression find women tend to outnumber men at a rate of about

2:1 (WHO, 2000). The etiological role of stress in depression onset has been given greater support by neurobiological studies noting disruptions to the hypothalamic-pituitary-adrenal (HPA) axis (Carroll, Curtis & Mendels, 1976; Gold & Chrousos, 2002; see review in van Praag, de Kloat & van Os, 2004). Consequently, websites addressing these two topics have sprouted on the Internet with researchers following suit in critically examining how these topics are constructed online. In the case of depression, the medicalized discourse employed by some websites has been identified in which depression is frequently constructed as a serious mental condition requiring pharmacological treatment (Gawley, 2007). As well, websites have also re-framed the social conditions of women's lives as "risks" that need to be managed to prevent illness (Gardner, 2007). However, these studies tend to focus on a specific type of website (e.g., selective serotonin reuptake inhibitor (SSRI) websites; state-policy and advocacy group websites) and do not take into account how the majority of people typically search for information online (i.e., by entering relevant terms in a search engine and reviewing the first few results) (Morahan-Martin, 2004).

4.1.1 Stress and Depression Concepts

The ubiquitous nature of the terms 'stress' and 'depression' in professional and lay discourse, and the growing plethora of treatments in the form of self-help, pharmaceuticals, and alternative medicine suggest that understanding the cultural conceptions of these topics has important implications for those who are affected by them. Despite the growth of research into both stress and depression, confusions abound as to what the terms mean. In the case of depression, the term has been used to refer to a non-specific *symptom* in a number of illnesses, a clinical *syndrome* with a particular

presentation, a medical *condition* warranting treatment, as well as a *mood*, *affect*, and *emotion* (Jackson, 1986). In the case of stress, scientific and lay discourses show variations in the definition, including stress as a *response* in the body, as a harmful or aversive *stimulus* in the environment that can cause illness or turmoil, or as the *perception or appraisal* by an individual that current resources are inadequate to meet situational demands (Mulhall, 1996; Donnelly & Long, 2003). Early scholars have suggested that the 'stress' term has become so broad as to be meaningless from a scientific perspective and have called for more precise uses of the term (Brown, 1996; Pollock, 1988), yet research continues to proliferate with little heed to these critiques. Some contemporary stress researchers have also raised concerns about the foundational underpinnings of much of this research by stating:

> Although potentially useful, an overly flexible conceptualization of "stress" can opportunistically fill an explanatory vacuum and can serve as a self-contained, culturally legitimized account for almost any disorder or disease of unknown origins. People hunger for explanations, and poor explanations are often preferred to nothing at all. (Monroe & Reid, 2009, p.68)

These varying accounts of stress make it challenging to discern its role in the development of a specific disorder. Despite this lack of conceptual clarity, research exploring the relation between stress and depression continues to grow.

4.1.2 The Relation of Stress and Depression

Research into improving the detection, diagnosis, and treatment of depression continues to develop, as do theories about what causes depression. Within scientific discourse, explanatory models for depression have focused on specific factors that confer vulnerability to the development of depression. These include biological factors (e.g., genes, hormones, neurotransmitters), psychological factors (e.g., temperament,

personality, learning), and social factors (e.g., early environment, culture). Stress enters the picture as one explanatory causal theory for depression. Stress is versatile enough a concept to simultaneously be considered a biological (e.g., fight-or-flight system), psychological (e.g., appraisal of threat or harm), and social (e.g., environmental demands, trauma, losses) risk factor, depending on how it is defined. In popular discourse, stress has long been used to explain the psychological and physical toll on individuals from living busy, pressured lives (Donnelly & Long, 2003; Mulhall, 1996, Pollock, 1988), although the mechanism translating environmental demands to bodily illness remains murky. Within the field of neuroscience, attempts have been made to delineate the mechanisms subserving the development of depressive psychopathology in animal and clinical studies by focusing on abnormalities in hypothalamic-pituitary-adrenal (HPA) axis functioning (e.g., Arborelius, Owens, Plotsky, & Nemeroff, 1999; Gold, Goodwin & Chrousos, 1988; Nemeroff, 1996; Sachar, Hellman, Roffwarg, Halpern, Fukushima, & Gallagher, 1973). The biological stress response is seen as the crucial link between how individuals translate their internal mental and emotional experiences to biochemical processes in the body (e.g., hormonal, immune, inflammatory, etc.) that can lead to further illness (Gabor, 2003). Despite the growth of research in this area, stress and depression researchers are careful to clarify that precise mechanisms linking stress to depression remain unknown, data are primarily correlational in nature, and it is often difficult to determine which findings are causal to depression, rather than a result of depression (Pollock, 1988).

While unmanaged stress as a harbinger for many illnesses, including cardiovascular disease, hypertension, diabetes, as well as other mental health conditions,

such as anxiety and schizophrenia, is evident in both scientific and lay discourse (Grippo & Johnson, 2009; Moghaddam, 2002; Mulhall, 1996), what remains unclear is how stress is specifically constructed in the development of depression in online public discourse. In this article, I explore how stress and depression are constructed online in top-ranked websites to gauge what the results of these searches offer the website user interested in learning more about the relation between stress and depression. This research can provide additional insight into the public discourse surrounding these concepts as disseminated in one form of technology-mediated communication, and into the implications of these constructions for individuals seeking help online to manage stress and depression. Given the continued growth and proliferation of research linking stress to depression, and the growing trend of searching for health information online, it is timely to consider how this information is translated in the online environment.

4.1.3 Health Seeking Online

Individuals are increasingly turning online for answers to health-related questions (Kivits, 2009). According to a recent survey of American adults in 2013, 59% of adults looked for health information online within the past year, with 77% of online health seekers stating they began their search at a search engine (Pew Internet Survey, 2013). Media scholars have suggested that future research on health and media should go beyond examining information reception to understanding everyday engagement of users with media, including how online experiences might affect offline health experiences such as increasing dialogue about health topics, seeking additional support, or engaging in further offline research (Kivits, 2009). As more individuals supplement their health knowledge with information supplied online, clinicians are called on to address questions

that individuals have about the information they find, including information quality, veracity, and health implications. This knowledge has been termed ‘eHealth literacy’ which is defined as “the ability to seek, find, understand, and appraise health information from electronic sources and apply the knowledge gained to addressing or solving a health problem” (Norman & Skinner, 2006, p.1). It becomes imperative, then, to gain a better appreciation of the type of information found online and the implications for website users.

Morahan-Martin’s (2004) review of online health-seeking behaviour documented that individuals typically use general search engines to find information (e.g., Google, Yahoo), enter simple terms that are sometimes misspelled, rarely search beyond the first page of search results, and judge the credibility of health care information by factors such as professional layout, citation of scientific references, understandable and professional writing that appeared sanctioned by official authorities. This approach to health information seeking on the Internet suggests that it might be quite easy to mislead users into believing that an online source is credible and authoritative, which highlights the need to critically evaluate these websites for the types of discourses they employ.

In response to the demand for more accurate health information online, initiatives have been developed for assessing the quality of health websites. For example, the Health On the Net (HON) Foundation has developed the HON code to assess websites on eight criteria: clear authorship, complementarity with medical treatment, privacy of client information, clear referencing of information sources, justifiability of claims, transparency of editors and webmasters, financial disclosure of website funding sources (e.g., by pharmaceutical companies) and clear advertising and sponsorship policies

(Boyer et al., 2007). While this initiative represents a step forward in at least attempting to provide quality control on the Internet, evidence suggests that users in actual search practice pay little attention to these quality indicators (Eysenbach & Kohler, 2002).

Of perhaps greater interest, search engines have faced increasing criticism in the role they play in mediating and privileging certain types of information found online (Granka, 2010; Diaz, 2008). In particular, Google, the most popular of search engines which handles the majority of search queries, uses PageRank technology to judge the importance of a webpage by how many other "important" pages link to it. In other words, popularity increases the webpage's relative rank (Diaz, 2008; Granka, 2010). Sites with less money and visibility are less likely to be seen or ranked highly by the search engine. In addition, paid placement allows websites to purchase search result text enabling them to appear above, below, or beside top ranks labeled as "sponsored" or "featured" sites (Diaz, 2008). The politics of search engine technology reveal that web site producers seek to be indexed by popular search engines such as Google since being ranked above the top 20 hits increases the likelihood of being noticed by 'unsophisticated' website users (Introna & Nissenbaum, 2000). Given the recent proliferation of research in this area, and the clear movement to searching for health information online, it is important to understand how the relation between the popular health concepts of stress and depression is constructed in popular websites designed for the public.

4.2 Methodology and Epistemology

I used discourse analysis (DA) as my approach to examining the website text. Discourse analysis encompasses a variety of approaches to working with language and text in various contexts. In discourse analysis, language is seen as a form of action within

a particular context and occasioned by the particulars of that setting and context (Potter & Wetherell, 1987). I examine how discursive features of the text on the websites accomplish various ends (Potter & Wetherell, 1987). I approached this work from a social constructionist epistemology which is based on the assumption that *how* people think is influenced by the conceptual frameworks available to them and is shaped by the language used, which is different than the traditional view of language as an expression of thoughts, beliefs, or attitudes residing *inside* the person (Burr, 1995). From a constructionist perspective, language is seen as a form of social action, and focus is placed on what language is *doing* in a given context (Burr, 1995). This *constitutive* view of language suggests that *how* people interact with each other is important to understanding how our world is constructed (Burr, 1995; Potter & Wetherell, 1987). This framework moves away from strictly *essentialist* (belief in innate discoverable natures) or *realist* (belief in an objective reality that can be perceived) approaches to the research endeavour (Crotty, 1998; Gergen, 1985). It is important to emphasize that this approach does not deny that reality exists (an ontological assertion), but rather insists that it is socially constructed (an epistemological position) (Burr, 1995; Edley, 2001).

4.2.1 Analytic Process

Each website was examined with the following two research questions in mind: *How does the website construct the role of stress in the development of depression? What are the implications of this construction for website users?* Analysis involved reading through the website text multiple times, both offline and online. I focused specifically on extracts linking stress and depression together and isolated these extracts for further analysis. I made notes on how these two topics were linked together and compared and

contrasted the material from all six sites. I then returned to examine the extracts in the full text of the entire website to determine how the parts related to the overall script of each website separately. Close attention was paid to what was said about the topics of stress and depression, how it was said, and to the possible function of these constructions. Analysis is an iterative process and the text was cycled through many times. As patterns began to emerge in the text, notes were made about these patterns. The full website text was re-examined in order to trace the ways in which various constructions were used and to what effect, by considering potential implications for the website user.

4.3 Method

4.3.1 Data Selection

Between the period of July 2009 and November 2010, I conducted 14 separate Google searches on nine separate dates. Each search consisted of entering various combinations of the following words: *stress*, *depression*, *self-help*, *manage*, *help*, and *managing*. The top ten results of each search were saved and compared for type of website, rank order, relative rank, and frequency. Sixty-one distinct websites were returned in total. An additional 10 websites that were not found in the first page of search results were also included for comparison purposes, leading to a total dataset of 71 websites. Given the large size of this dataset, a purposeful sample of 30 websites was chosen for closer analysis. The rationale for choosing these 30 websites included ensuring maximal variability by selecting websites found in both high and low positions in the rank order list, as well as those representing different institutional affiliations (e.g., private individual, government, educational institution, etc.). For the current article, a subset of six websites was examined. The first three websites were returned as the top

three ranked sites on a search conducted on May 11, 2010, with the search terms ‘stress’ and ‘depression’. The last three websites were accessed on the dates as listed in Table 1 below, along with their respective search terms. These websites represented a comparison group of recognizable, established health websites used to contrast information found on the ‘most popular’ sites. These websites were part of the larger dataset of 30 websites, appearing in a top ten position.

Table 1: Search Terms and Website Results

Search Terms:	Date of Access:	Top 3 Ranked Websites:
stress, depression	May 11, 2010	1. www.allaboutdepression.com 2. www.stress-anxiety-depression.org 3. www.depression-help-for-you.com

	Rank:	Date of Access:	Health Information Websites:
manage, stress	5	May 11, 2010	www.medicinenet.com
managing, stress, depression	5	October 14, 2009	www.mayoclinic.com
stress, depression	10	July 22, 2009	www.nimh.nih.gov

At the time of the search, material from the websites was printed and a screen capture was made of the image homepage, as the information on webpages can be updated and changed frequently. Additionally, website text was saved in an electronic file to facilitate data management. Both the printed material and electronic files were numbered consecutively for ease of reference and citation purposes. Website ‘pages’ were not always clearly delineated online based on website format and structure, and so did not correspond to the printed pages. Line numbers of the printed text were added to facilitate easy location of selected extracts in the manuscript. I have included additional information about website authorship, ownership, launch history, and financial sponsorship in Appendix 1, if such information was provided by the website.

4.4 Limitations

This research is meant to highlight the types of constructions of the relation of stress and depression found online in the six websites I examined. It is not meant to make claims about the larger body of websites examining stress and depression. While the interpretations offered here are filtered through my own analytic perspective, they draw attention to specific patterns I found grounded in the extracts which I have included to provide evidence of my interpretations. Consistent with my epistemological framework, these interpretations are not meant to be understood as definitive; rather they are some of many that are possible.

Likewise, the material from these websites (as is true for other online material) represents what was found on the date it was accessed. Online material frequently changes and the present analysis here examines only what was seen on the websites on a given day. Indeed, the format and language of some of the websites changed on subsequent visits. However, this feature of the website data is not seen as a weakness per se. Online information needs to be critically examined regardless of its transitory nature; people are constantly viewing these sites, often visiting them only once.

Finally, the website material accessed for this research was obtained in the setting of a computer lab, and in the context of a research project. This approach to finding online presentations of stress and depression are not seen as equivalent to searching for online health information from other 'spaces' such as the privacy of one's home or work setting, or in the context of needing health information relevant to one's own health condition or that of a loved one, as may be the case for a significant proportion of health searches. How people search, the motivation fueling their online search efforts, the value

placed on the information obtained, and how it might be used to influence offline behaviour will likely differ according to context. However, this possibility does not negate the necessity of examining the search results obtained in a similar manner to how people might conduct their own search. Additionally, search engines such as Google increasingly attempt to provide users with the "perfect search" (customized to the user's preferences, previous search histories, geographical location, etc.) (Granka, 2010).

4.5 Analysis

4.5.1 Website Descriptions

To situate the texts included in the analysis section, I provide a brief description of each of the top three ranked websites returned in the current search, along with an explanation of where I found the specific extract used in the analysis. Starting with the search terms 'stress' and 'depression', *All About Depression*, *Stress Anxiety Depression*, and *Depression Help For You* were the top three websites returned in the search conducted on May 11, 2010. As mentioned, these top-ranked websites are also compared to three highly ranked mainstream health websites that were found in a top ten position in search results. These latter three websites represent different, larger institutional based websites including *MedicineNet*, *MayoClinic*, and *NIMH* (National Institute of Mental Health). In addition to being able to be retrieved as the result of a general search, these websites can also be searched for directly by name as website users might consider them to be more authoritative sources of information and possibly be more familiar with them. In addition, I also categorize the top three websites based on whether they appear to be explicitly commercial (i.e., promoting the purchase of a product for sale) or not, as this

function provides an important context for the type of material, and the nature of the text, contained on each website.

The first website, www.allaboutdepression.com, was reported to be launched in July 2000 by Dr. Prentiss Price, as part of the author's doctoral dissertation in Counselling Psychology, as described in the About Us section. I have categorized *All About Depression* as an *informational depression website*. It offers the reader specific information on various aspects of depression identification and management. The information is presented in a detailed and organized format. The site provides a table of contents in a column on the left hand side of the homepage for straightforward navigation. In addition, separate tabs along the top of the page address topics such as *Causes*, *Diagnosis*, *Treatment*, and *Medication*. Extracts were obtained from the *Stress and Depression* page, which linked the two topics together under the *Environmental Causes* heading. This specific subpage was returned directly as a result of the search terms entered into Google.

The second website, www.stress-anxiety-depression.org, was reported to be launched by the author, Dr. Edward Group, who is identified as a chiropractor and nutritionist. There was no specific launch date listed on the website. I have categorized this website as a *promotional mixed website* as the site provides information, as well as recommends various naturopathic products created by the site owner, for relief of stress, anxiety, and depression. The homepage offers three directories on the topics of stress, anxiety, and depression. Each directory contains separate articles on various aspects of the three topics. For example, under the *Depression* directory, articles include: *Types of Depression*, *Causes of Depression*, *Childhood Depression*, etc. Extracts from the *Causes*

of Depression sections of this website were obtained from different pages as the reader is required to navigate to different pages in order to find information relevant to a specific search query.

The third website, www.depression-help-for-you.com was claimed to have been launched in March 2002 by the author, Dr. H. Paul Stanley, who is identified as a Counselling Psychologist. This site also contains a menu guide on the left hand side, but the topics are broad in scope and not as clearly organized (e.g., *Understand Depression*, *Burnout & Depression*, *Thinking & Depression*, etc.). I have categorized this site as a *promotional depression website* as the author is promoting a number of his products for purchase including an e-book, *Strength for Stressed Out Saints*, a Christian guide to stress management, and an e-workshop, *How To Transform Your Life*. The extracts from this website were taken from the *Stress and Depression* subpage, under the title "Stress and Depression: I'm So Stressed Out That It's Depressing" [sic] which was returned directly as a result of the search terms entered.

On first glance, the three websites differ in structure, clarity, professional layout, and language formality. For example, *All About Depression* maintains the most professional and organized layout of the three sites. Information is presented in a logical progression from definitions of depression (*What is it?)*, to finding assistance (*Getting Help*), and finally, ending with more specialized topics (e.g., *Depression in the Elderly*). This organizational strategy makes the website easy to navigate. *Stress Anxiety Depression* presents readers with articles from the main author, as well as a number of different invited authors, grouped under the three main topic headings. The articles listed under each topic are general in scope, brief in length, and offer less detailed information

in comparison to the first site. There is no clear organizational strategy as to how the topics have been arranged. For example, in the *Stress* directory, one can find topics such as *Stress Balls*, *Understanding Stress and Anxiety*, *Coping with Stress*, and the title *Stress and Anxiety* again. Finally, the *Depression Help For You* website appears to be the least sophisticated of the three websites in terms of structure and layout. The *Stress and Depression* subpage contains a large block of text requiring the reader to scroll down in order to read all the information provided. There are no clear headings or attempts to further categorize the information. Likewise, the promotional features of the last two websites represent a different tone in the material presented. While the products of the *Depression Help For You* site are clearly marketed to readers and appear on the main page of text, the naturopathic products promoted by *Stress Anxiety Depression* are not found on the homepage, but are located in the recommendations of specific articles. As a consequence, readers are not immediately aware that they are on a promotional, rather than strictly informational, website.

4.5.2 Constructing the Role of Stress in Developing Depression

4.5.2.1 A Moving Target

Readers who want to better understand the role of stress in developing depression will be presented with changing formulations of this relation throughout the website text. In particular, multiple, competing constructions about the relation are presented one after another. For example, in *All About Depression*, the relation between stress and depression is variously described as clearly causal, not known, not related at all, varying from person to person, implicated only for certain people, indirectly related, or too complex to understand. By grouping these various accounts together, it might give the

appearance of providing an 'information-rich' presentation, which can serve a variety of functions. These functions include: attempting to be faithful to the research literature in which numerous competing research claims can often be found, capturing the attention (and possible identification) of a vast readership who seek alignment with their personal experiences, or establishing the website's authority or credibility as a source of 'fair' information which presents opposing viewpoints. I trace these changing formulations to clarify what they might accomplish.

4.5.2.1.1 Position reversals. The websites I examined engaged in frequent position reversals in describing the relation between stress and depression. In particular, after claiming one type of relation, the text would often reverse its position in the next paragraph, or even the next sentence.

4.5.2.1.1.1 Causal relationship. In the *All About Depression* website, stress is initially linked etiologically to the development of depression in the opening paragraph:

01 *Stress and Depression*
02 *There appears to be a complex relationship among stressful situations, our*
03 *mind and body's reaction to stress, and the onset of clinical depression. It is*
04 *clear that some people develop depression after a stressful event in their lives.*
05 *Events such as the death of a loved one, the loss of a job, or the end of a*
06 *relationship are often negative and traumatic and cause great stress for many*
07 *people. Stress can also occur as the result of a more positive event such as*
08 *getting married, moving to a new city, or starting a new job. It is not*
09 *uncommon for either positive or negative events to become a crisis that*
10 *precedes the development of clinical depression.*
www.allaboutdepression.com (p.1a1)

The text begins by acknowledging the complexity of the relation between stress and depression. Despite this complexity, the website moves to an authoritative stance in declaring: "*It is clear that some people develop depression after a stressful event in their lives*" in lines 3-4, leaving no room for ambiguity about the causal role of stress in

developing depression. The text further reinforces the etiological role of stress by emphasizing the time course of the relation to depression. Chronological indicators such as the "*onset of clinical depression*" in line 3, "*after a stressful event*" in line 4, "*cause great stress*" in line 6, and "*precedes the development of clinical depression*" in line 10 suggest that there is a linear relation in which stress occurs first temporally, followed by the development of depression. After beginning the text in this manner, the text reverses its position in the next paragraph by claiming that the cause of depression is unknown.

4.5.2.1.1.2 Unknown cause. This position reversal is couched in a more tentative and hedging manner in contrast with the first paragraph.

> 11 *Whether a stressful event itself can actually cause a person to become*
> 12 *depressed is not fully known. There are times when we all must struggle with*
> 13 *very painful situations in our lives. More times than not these changes do not*
> 14 *result in a person becoming clinically depressed.*
> www.allaboutdepression.com (p.1a2)

The use of words such as "*whether*", "*can actually*" in line 11 and "*not fully known*" in line 12 lack the certainty of the opening paragraph. This uncertainty is further reinforced by the vague temporal references, "*there are times*" in line 12 and "*more times than not*" in line 13, in contrast to the linear temporal relation established earlier. In addition, the adverbs "*can actually*" and "*not fully*" infuse an element of doubt, especially when contrasted with their opposing forms (*actually* versus *really*, or *in reality,* suggesting a separation from what is real to what is known; and *fully* versus *partially* known, suggesting that some aspects of the stress-depression relation remain unknown). This cycling between the certain and uncertain, the known and the unknown, offers an interesting juxtaposition of confidence and mystery in the relation between stress and depression. This juxtaposition appears to claim some authority about the stress-

depression relation, while freeing itself from having to clearly delineate how this relation might work. The existence of conflicting research findings and different personal experiences of stress and depression are thereby captured. A further complication is offered when the formulation is changed yet again.

4.5.2.1.1.3 No relation. In the next section, the website makes another position change by claiming that sometimes there is no relation between stress and depression at all:

> 15 *In fact, sometimes people become depressed even when there is little or no*
> 16 *stress in their lives and everything seems to be going very well. And, no single*
> 17 *stressful event will cause depression to develop in every person. The same type*
> 18 *of stressor may lead to depression in one person, but not another.*
> www.allaboutdepression.com (p.1a2)

In this extract, this new position is reinforced by the emphatic "*in fact*" in line 15 to begin the sentence, and the statement, "*no single stressful event will cause depression to develop in every person,*" in lines 16-17. This statement no longer possesses the hedging language of the previous paragraph. The reader is now presented with the case where depression can develop in the *absence* of stress, indicating that the relation is not causal or unknown, as indicated previously, but *unrelated*. This position further unravels the etiological link established earlier in the text. Rather than settling with the finding that the cause of depression is still unknown as established in the paragraph, this extract moves positions once again to suggest that in some cases depression occurs without any stress at all. While this latest claim appears to provide additional 'useful' information for the reader, when presented in immediate succession to the previous claims of clear causality and unknown cause, the text's seemingly logical progression begins to unravel. Readers are presented for the first time with the possibility that depression can also

develop without stress as a precipitating factor. Further, the text ends with the suggestion that no reliable conclusion can be drawn about the depressogenic effects of any given stressor, as the causes of depression can differ from one individual to another. Positions shift once again.

4.5.2.1.1.4 Relation varies from person to person. The relation described at the end of the paragraph suggests the relation can be highly individual:

> 16*…And, no single*
> 17 *stressful event will cause depression to develop in every person. The same type*
> 18 *of stressor may lead to depression in one person, but not another.*
> www.allaboutdepression.com (p.1a2)

The relation is no longer causal, unknown, or unrelated, but *personalized* in the sense that the cause of depression will vary from person to person as indicated in lines 16-18. The message conveyed to the reader is that he or she need not worry about having a different reaction to a given stressor in comparison to others. More specifically, the effects of stress are seen as unique to each person, i.e., "*the same type of stressor may lead to depression in one person, but not another*" (lines 17-18), merely repeating the message of the previous sentence without adding any new substantive content. These sentences appear to act as disclaimers in which readers who have yet to find themselves represented in the previous examples can be reassured that their *personalized* response to stress is to be expected. It safeguards the website from excluding any reader, and opens up the stress-depression relation, allowing the reader to accommodate it to his or her own circumstance.

As lengthy as this list of changing formulations appears to be, there are further relations of stress to depression as the text continues. For example, stress is also described as being implicated only for certain people (i.e., those possessing 'risk factors'

such as a genetic predisposition). In the following extract, death of a loved one is more likely to lead to depression in someone with a family history as suggested in lines 20-22:

> 19*If a stressful experience causes a person to become depressed, it may happen*
> 20*indirectly. In other words, if a young woman with a family history of major*
> 21*depression suffers the death of a loved one, she may become clinically*
> 22*depressed. In this situation it is not necessarily the traumatic loss itself that*
> 23*caused the development of depression, but the combination of a genetic*
> 24*predisposition with the stressful event that made her vulnerable to becoming*
> 25*depressed.* www.allaboutdepression.com (p.1a2)

Thus, others who have suffered a traumatic loss, but do not find themselves depressed, can potentially conclude that they lack the requisite "genetic predisposition".

The relation between stress and depression is also presented as indirectly related (i.e., a combination of events or circumstances must occur in order for stress to lead to depression), or as even more complicated in certain situations (e.g., the kindling-sensitization hypothesis suggests that early episodes of depression make a person more likely to develop subsequent depressive episodes). Consider the following extract:

> 26*For those who struggle with more chronic depression, the effects of stress may*
> 27*be more complicated. A stressful event such as a job loss or the death of a*
> 28*loved one is more likely to come before a first or second depressive episode.*
> 29*After that, further depressive episodes may develop spontaneously. It is not*
> 30*certain why stress may lead to depression in this way. However, researchers*
> 31*have theorized an explanation called the "kindling effect," or "kindling-*
> 32*sensitization hypothesis." This theory surmises that initial depressive episodes*
> 33*spark changes in the brain's chemistry and limbic system that make it more*
> 34*prone to developing future episodes of depression. This may be compared to*
> 35*the use of kindling wood to spark the flames of a campfire. Since early episodes*
> 36*of depression make a person more sensitive to developing depression, even*
> 37*small stressors can lead to later depressive episodes.*
> www.allaboutdepression.com (p.1a2)

The text in this extract suggests that it is not clear why stress sensitizes some people to develop subsequent depressive episodes (lines 29-30). It also raises the concern that stress researchers have highlighted in which different interpretations of the kindling

effect have been described: i.e., depression can develop spontaneously once "kindled" so stress is no longer necessary to initiate depression, or the brain becomes more sensitive to developing depression in response to "small" stressors once kindled, as suggested in lines 36-37. Monroe and Harkness (2005) suggested that these interpretations contrast changes over time in the *frequency* of life stress prior to depression onset versus changes over time in the *impact* of life stress prior to depression onset. In the former case, depression can occur without a precipitant stressor once the brain has been initially kindled, whereas in the latter case, stress is still required for the development of depression, but only in a "small" amount, as the brain is more sensitive to the effects of stress in its kindled state. Rather than clarifying the relation of stress to depression, these competing claims work to further obscure any definitive pronouncements that could be made on the topic, while at the same time appealing to a readership that is likely approaching the material from vastly different life circumstances.

The additional three medical health websites I examined, found in a top ten position of search results, also used changing formulations in exploring causes of depression. They framed 'clinical depression' as a disease requiring adequate diagnosis and treatment by health professionals, and made pronouncements on the causes of depression with more authority. For example, the website, www.medicinenet.com, is produced by *MedicineNet, Inc.* which is an online healthcare media publishing company that is owned and operated by WebMD. According to the website, it is "*nationally recognized, doctor-produced by more than 70 US board certified physicians*" and is "*the trusted source for online health and medical information*" (Retrieved from www.medicinenet.com). Citing oneself as a "trusted" source that is "nationally

recognized," comprised of "physicians," in which material is "doctor-produced" confers medical authority to the website. This website also presents multiple changing formulations on the cause of depression. Consider the following extract:

> 01 *What are the causes of depression?*
> 02 *Some types of depression run in families, indicating that a biological*
> 03 *vulnerability to depression can be inherited. This seems to be the case,*
> 04 *especially with bipolar disorder. Families in which members of each*
> 05 *generation develop bipolar disorder have been studied. The investigators found*
> 06 *that those with the illness have a somewhat different genetic makeup than*
> 07 *those who do not become ill. However, the reverse is not true. That is, not*
> 08 *everybody with the genetic makeup that causes vulnerability to bipolar*
> 09 *disorder will develop the illness. Apparently, additional factors, possibly a*
> 10 *stressful environment, are involved in its onset and protective factors are*
> 11 *involved in its prevention.*
>
> 12 *Major depression also seems to occur in generation after generation in some*
> 13 *families, although not as strongly as in bipolar I or II. Indeed, major*
> 14 *depression can also occur in people who have no family history of depression.*
>
> 15 *An external event often seems to initiate an episode of depression. Thus, a*
> 16 *serious loss, chronic illness, difficult relationship, financial problem, or any*
> 17 *unwelcome change in life patterns can trigger a depressive episode. Very often*
> 18 *a combination of genetic, psychological, and environmental factors is involved*
> 19 *in the onset of a depressive disorder. Stressors that contribute to the*
> 20 *development of depression sometimes affect some groups more than others. For*
> 21 *example, minority groups who more often feel impacted by discrimination are*
> 22 *disproportionately represented. Socioeconomically disadvantaged groups have*
> 23 *higher rates of depression compared to their advantaged counterparts.*
> www.medicinenet.com (p. 11B7-11B8)

In this extract, genes are initially implicated in the development of depression by the claim that "*some types of depression run in families*" in line 2. However, before proceeding too far in equating genetic predisposition with illness development, the text quickly offers a rebut, "*the reverse is not true*" in line 7, in which having a family history of bipolar disorder does not necessarily mean that one will develop the illness. If there was any doubt about the role of genes in depression more specifically, the text further offers "*depression can also occur in people who have no family history of depression*" in

line 14, ruling out genes altogether in the development of depression, thereby reversing the original claim about genetic vulnerability. With this reversal, readers who are fearful of developing depression, given a positive family history of the illness, can be quickly put at ease that genes are not necessarily sufficient to develop depression. The biological concept of being "genetically predisposed" to developing depression is introduced here which appears to imply that genes can confer additional vulnerability in developing illness. The concept of "predisposition" is frequently used in diathesis-stress models of disease development and is often a taken-for-granted assumption imbued with biological authority. The diathesis-stress model provides an explanatory framework to capture both instances of genetic risk leading to illness development, and simultaneously also explains why individuals at genetic high risk do not develop illness (i.e., genes are a necessary but insufficient precondition for illness development). The concept also provides considerable flexibility in the conclusions one can draw as outlined in the previous extract (i.e., possessing certain genes signifies the potential of developing a disorder as suggested in line 6 and again in lines 12-13, versus the equally likely conclusion that genes do not necessarily equal developing a disorder as suggested in lines 7 to 9, and again in line 14). These position reversals manage to capture the range of experiences website users might have in regard to their own history of genetic risk for depression (e.g., have genes → develop disorder, have genes → do not develop disorder, do not have genes → develop disorder, do not have genes → do not develop disorder). To those website users hoping to find their circumstances described on the website, this inclusivity accomplishes the task. For those website users hoping to understand the contribution of genetics to the development of the disorder, this inclusivity may raise further questions.

The next position change begins to implicate stress but does so in a hesitant manner by using the indeterminate "*apparently, additional factors, possibly a stressful event*" in lines 9-10 to introduce the etiological role of stress. The sentence, replete with modifying adverbs, suggests the link with stress might be weak or tenuous at best. A more confident assertion is provided by line 15, "*an external event often seems to initiate an episode of depression*", although the use of "*often seems*" provides a repository for exceptions to this scenario. Since the exceptions can be many and varied, the website offers the organizational scheme of multiple factors, "*genetic, psychological, and environmental*", in line 18 and the concept of 'at-risk' groups in line 20 to categorize these possible scenarios. While those more familiar with professional health discourse will recognize the *multifactorial* and *biopsychosocial* conceptualizations of disease development used in this depression text, one begins to see how the use of these broad explanatory frameworks opens the text to multiple, often personalized, interpretations. Readers can substitute their own particular combination of genetic, psychological, and environmental variables to account for their personal circumstances. And if readers lack these crucial 'risk factors,' they are also assured that depression can occur in the absence of these factors as well. While everyone can potentially be represented in the text, the paradox of adding more information to provide less useful incremental information is apparent.

This pattern of changing formulations and reversing positions on the postulated causes of depression becomes an acceptable method of presenting information related to illness development in the other well-recognized website, www.mayoclinic.com, found in the top ten search results. The website is owned by the Mayo Foundation for Medical

Education and Research. The senior medical editors of this website are identified as Mayo Clinic clinicians who attempt to provide "*accurate, clear, and relevant*" medical information (Retrieved from www.mayoclinic.com). Consider the following extract:

> 01 *Causes*
> 02 *It's not known specifically what causes depression. As with many mental*
> 03 *illnesses, it's thought that a variety of biochemical, genetic and environmental*
> 04 *factors may cause depression:*
>
> 05 ▪***Biochemical.*** *Some evidence from high-tech imaging studies indicates that*
> 06 *people with depression have physical changes in their brains. The significance*
> 07 *of these changes is still uncertain, but may eventually help pinpoint causes.*
> 08 *The naturally occurring brain chemicals called neurotransmitters, which are*
> 09 *linked to mood, also may play a role in depression. Hormonal imbalances also*
> 10 *could be a culprit.*
>
> 11 ▪***Genes.*** *Some studies show that depression is more common in people whose*
> 12 *biological family members also have this condition. Researchers are trying to*
> 13 *find genes that may be involved in causing depression.*
>
> 14 ▪***Environment.*** *Environment is also thought to play a causal role in some way.*
> 15 *Environmental causes are situations in your life that are difficult to cope with,*
> 16 *such as the loss of a loved one, financial problems, and high stress.*
> www.mayoclinic.com (p. 10A6-10A7)

The script can be traced from the unknown (line 2) to multiple factors (line 3). The usual suspects of biology are implicated here (specifically separated into "*biochemical*" in line 5, including "*brains*" in line 6, "*neurotransmitters*" in line 8, and "*hormones*" in line 9). The pattern of mixing the certain with the uncertain is seen again in this text in which individuals with depression are constructed as having different brains in line 6, *"people with depression have physical changes in their brains.*" The text does not equivocate in this statement. However, the significance of this assertion is immediately brought into question. Uncertainty is introduced in lines 6 to 7 with the statement, "*the significance of these changes is still uncertain,*" in which the relevance of these brain changes, as well as

the type and manner of these changes, is left unanswered. However, rather than dismissing this research finding entirely, the value and potential significance of this type of research endeavor is reinforced because it "*may eventually help pinpoint causes*" (line 7). Similarly, uncertainty is also raised indirectly when neurotransmitters "*may play a role*" (line 9) and hormones "*could be a culprit*" (line 10) and the environment is "*thought to play a causal role in some way*" (line 14). For website users, the text suggests that these factors are important, yet it appears to shy away from specifically stating *how* they are important. This pattern of cycling from known to unknown, certain to uncertain, definite to hedging language, is surprisingly consistent with the final major health website considered in the analysis, www.nimh.nih.gov. This discursive strategy simultaneously establishes an authoritative stance, but abdicates from having to substantiate its claims. Consider the following extract from the NIMH:

> 01 *What causes depression?*
>
> 02 *There is no single known cause of depression. Rather, it likely results from a*
> 03 *combination of genetic, biochemical, environmental, and psychological factors.*
>
> 04 *Research indicates that depressive illnesses are disorders of the brain. Brain-*
> 05 *imaging technologies, such as magnetic resonance imaging (MRI), have shown*
> 06 *that the brains of people who have depression look different than those of*
> 07 *people without depression. The parts of the brain responsible for regulating*
> 08 *mood, thinking, sleep, appetite and behavior appear to function abnormally. In*
> 09 *addition, important neurotransmitters—chemicals that brain cells use to*
> 10 *communicate—appear to be out of balance. But these images do not reveal* ***why***
> 11 *the depression has occurred.*
>
> 12 *Some types of depression tend to run in families, suggesting a genetic link.*
> 13 *However, depression can occur in people without family histories of depression*
> 14 *as well. Genetics research indicates that risk for depression results from the*
> 15 *influence of multiple genes acting together with environmental or other factors.*
>
> 16 *In addition, trauma, loss of a loved one, a difficult relationship, or any stressful*
> 17 *situation may trigger a depressive episode. Subsequent depressive episodes*
> 18 *may occur with or without an obvious trigger.*
> www.nimh.nih.gov (p. 9A2)

The NIMH is part of the National Institutes of Health (NIH), which is administered by the United States Department of Health and Human Services. This governmental website would likely be considered a trusted source of health information. The moving target device is evident in the Causes of depression section (i.e., moving throughout the text from initially claiming there is no single known cause of depression (line 2), to conceding the possibility of multiple causes (line 3), each of indeterminate effect, and citing the potential role of the brain, neurotransmitters, genes, and stress. The website uses the familiar position reversal device, for example, implicating genes in line 12 and then negating them again in line 13, "*however, depression can occur in people <u>without</u> family histories of depression*". Likewise, stress "*may trigger a depressive episode*" in line 17, but the qualifier "*subsequent depressive episodes may occur <u>with or without</u> an obvious trigger*" in lines 17-18, states the opposite scenario is also equally likely. Again, depression is constructed categorically as a "*disorder of the brain*" (line 4), implying causality is biologically brain-based. Yet, despite technological advances that allow us to "peer into" the brain, the website highlights that "*these images do not reveal **why** the depression has occurred*" in lines 10 to 11. This statement reinforces the potential difficulty in drawing firm conclusions from group differences in neuroimaging studies, in which the direction of perceived differences is inconsistently observed. While website users might hunger for an explanation as described earlier, the text appears again to raise more questions than it answers, while providing a 'fuller' and nuanced account.

4.5.2.2 Peddling in Generalities

Another discursive device found on the websites I examined involved varying the levels of specificity of the terms and categories used to describe relevant factors in the

development of depression. In particular, the use of vague language, broad category inclusion, and the recycling of research findings highlights the redundant nature of some of the claims made by the websites in explaining causes of depression.

4.5.2.2.1 Use of vagueness. The *Stress Anxiety Depression* website demonstrates the cycling between certain and uncertain knowledge, and also engages in the discursive device of simultaneously presenting multiple formulations on the relation between stress and depression in close proximity to one another. Rather than engaging in position reversals, however, this site inoculates itself from making a potential false claim by the careful use of vague assertions. For example, consider the following extract:

01 *Causes of Depression*

02 *There is no one single cause of depression. Most often, it is the result of a*
03 *combination of events or circumstances. But whatever the cause, it's important*
04 *to remember that depression is not just in your mind. It's related to physical*
05 *changes in the body and brain that cause a chemical imbalance affecting the*
06 *signals between the brain and nerves. Some common elements in the*
07 *development of depression include:*

08 ▪***Family History:*** *Your depression may have a genetic root. Depression can run*
09 *in families.*

10 ▪***Trauma and Stress:*** *Witnessing a traumatic event such as a car accident, a*
11 *fire, or a death of a family member can have a profound effect on you, whether*
12 *you realize it or not. And stressors such as money, relationships, work, and*
13 *changes in your life, like graduating from school, can all cause you to become*
14 *depressed.*

15 ▪***Low Self-Esteem:*** *People who have a pessimistic personality and a negative*
16 *outlook on life have a greater risk of becoming depressed.*

17 ▪***Illness or Medical Conditions:*** *Serious diseases such as cancer, heart disease*,
18 *and AIDS can play a role in the development of depression. A serious medical*
19 *condition takes its toll physically, causing stress and weakness, as well as*
20 *mentally. Depression can also be a side-effect of a medication used to treat*
21 *another disorder.*

22 ▪***Other Psychological Conditions:*** *Eating disorders, schizophrenia, anxiety*
23 *disorders, and substance abuse can all contribute to the development of*
24 *depression.* www.stress-anxiety-depression.org (29a7-29a8)

The text begins the *Causes* section by acknowledging in line 2 that there is no *single* cause of depression. Although *one specific cause* cannot be identified, the addition of *multiple causes* of unknown effect is seen as providing greater clarification in lines 2-3. Here, the text moves to suggest that depression is due to a *combination* of causes. Instead of clarifying what these are, the text resorts to the uncertain, "*whatever the cause*" in line 3, as if specifying the cause was now irrelevant despite being the topic heading of this section. The text returns to exploring potential causes in the bulleted list provided, but is careful to suggest potentiality, rather than certainty, "*your depression may have a genetic root*", "*depression can run in families*", "*witnessing a traumatic event…can have a profound effect on you*". These vague assertions appear to function to protect the website from making claims it cannot substantiate in relation to the research literature, or in relation to the reader's personal experience (i.e., not everyone reading will have a family member with depression). In contrast to the health websites described earlier, this website does not specify the "*combination of events or circumstances*" (in line 3) that might be associated with the development of depression. Website users are able to substitute in their personal life circumstances in determining which events or circumstances contributed to their depression. Similarly, rather than using the biomedical discourse of the other health websites, *Stress Anxiety Depression* suggests there are vague "*changes in the body*" and a "*chemical imbalance*" in the brain in line 5, but does not describe the physiological changes that might occur, or label neurotransmitters as the potential source of the chemical imbalance. As well, in contrast to the previous websites'

inclusion of the potential role of genes in the development of depression, *Stress Anxiety Depression* presents a rather short and truncated description of the role of family history in lines 8-9. This extract demonstrates the parallel structure and content of the previous websites, but with a "thinner" presentation of information. However, by remaining sufficiently general, the website still remains relevant to a wider audience. This scant approach to details on the site leaves much of the filling-in of information up to the reader, yet accords similarly enough with the larger health websites to seem "legitimate". Interestingly, whether by adding too much information (and capturing the diversity of the target audience), or providing relatively little information (and leaving the rest up to the reader to fill in), these websites appear to retain maximal reader relevance.

4.5.2.2.2 Category inclusion. Another device that adds to the lack of specificity in describing the relation of stress to depression is how categories of relevant factors are constructed. Another form of cycling from the general to the specific occurs when superordinate categories and exemplars from within the same category are used to construct lists of factors relevant to depression. For example, in the extract above, the conjunction of "*body and brain*" in line 5, and "*brain and nerves*" in line 6 provides a listing function that effectively separates these elements, as if the brain was separate from the body, and as if the brain did not consist of nerves itself. This listing function appears to create a 'layering' effect in which additional terms are supplied to seemingly provide more information. Paradoxically, on closer reading, these terms are superfluous. For example, the "*pessimistic personality*" and "*negative outlook on life*" listed in lines 15-16 are conceptually identical and do not provide any new information. Likewise, listing different terms such as "*illness*", "*medical conditions*", and "*diseases*" in line 17, fails to

explain the differences between these words, if any, beyond stating that they take a "*toll physically, causing stress and weakness, as well as mentally"* in lines 19-20. In this extract, *stress* is not only its own separate *cause* as listed earlier in line 10, but also an *effect* of other conditions, which highlights the lack of conceptual clarity in the relation of stress to illness.

More problematic might be the conflation of some of the terms such as "*trauma and stress"* in line 10. It is unclear if these terms are meant to be equivalent, or if the category of *stress* is believed to subsume more extreme events captured by *trauma*. The use of the conjunctive *and* versus *or* to list these terms suggests there might be some degree of overlap between the two terms as *or* would suggest an option between two different alternatives. This nebulous use of categories is also seen in the other websites. Take the following example from the *All About Depression* website in the *Causes* introduction:

> 01 *Causes of Depression*
> 02 *Unfortunately, it is not fully known what exactly causes clinical depression for*
> 03 *a particular individual. There are many theories about causes such as*
> 04 *biological and genetic factors, environmental influences, and childhood or*
> 05 *developmental events. However, it is generally believed that clinical depression*
> 06 *is most often caused by the influence of more than just one or two factors. For*
> 07 *instance, a person whose mother had recurrent major depression may have*
> 08 *inherited a vulnerability to developing clinical depression (genetic influence).*
> 09 *This combined with how the person thinks about him- or herself (psychological*
> 10 *influence) in response to the stress of going through a divorce (environmental*
> 11 *influence), may put him or her at a greater risk for developing depression*
> 12 *than someone else who does not have such influences.*
>
> 13 *The causes of clinical depression are likely to be different for different people.*
> 14 *Sometimes a depressive episode can appear to come out of nowhere at a time*
> 15 *when everything seems to be going fine. Other times, depression may be*
> 16 *directly related to a significant event in our lives such as losing a loved one,*
> 17 *experiencing trauma, or battling a chronic illness.*
> www.allaboutdepression.com (p. 1a3)

Of note, in line 4, “*biological and genetic”* factors can be combined, as genes are considered part of one’s biological make-up. As well, “*environmental influences, and childhood or developmental events*” in lines 4-5 can also be subsumed, as childhood *is* presumed to be developmental and open to environmental influences. The tendency to isolate and list variables as though they are unique and provide an additive effect is a particular discursive device that seems to create the impression of a fuller, more authoritative account. But what is gained from the addition of more ‘variables’, relevant ‘risk factors’, or ‘causes’ when they begin to be redundant is unclear, beyond being just general enough to account for any possible situation.

4.5.2.2.3 Recycling research claims. The main message of the *Depression Help For You* website is that different life circumstances can lead to depression, but depression can also contribute to stressful life circumstances. The tautological nature of this claim is overlooked in the detailed presentation of multiple research findings which are shown to confirm this relation. For example, “*they* [the researchers] *found that health-related stress, family violence, and financial stress related to an increase in depression. They also found that depression related to an increase in health related stress, financial stress, household changes, spouse-partner stress, family violence stress, and substance abuse stress*”. (www.depression-help-for-you.com, p. 4A3). The website text does not state the bidirectional relation of stress and depression outright. Rather, the website presents these two directions of the stress-depression relation, separately, (, i.e., the researchers “*also found that…*”). This pattern of listing multiple research results provides the impression that many studies traced the separate directions of the relation (stress → depression, depression → stress) and ‘discovered’ that they mutually influence each other. The

tautological reasoning evidenced here demonstrates the versatility of the stress concept in capturing a wide variety of life events that might be implicated in the development of depression, and vice-versa. It also highlights the difficulty in teasing apart the cause or effect function of both the stress and depression concepts.

> 02 *What is the relationship between stress and depression? You are probably*
> 03 *aware that when you become stressed-out, you also tend to become more*
> 04 *depressed.*
>
> 05 *There is much psychological research that confirms that there is a relationship*
> 06 *between stress and depression. The relationship is not a simple one, however.*
>
> 10 *Depression as an illness (clinical depression) seems to have a life of it's* [sic]
> 11 *own. It usually starts because of a stressful situation, but then it continues*
> 12 *independent of the stressful situation…*
>
> 36 *Other stressors which have been found to contribute to depression symptoms*
> 37 *by the stress and depression research have included...*
>
> 38 ▪*terrorist attacks*
> 39 ▪*losing a spouse*
> 40 ▪*losing a parent*
> 41 ▪*losing a child*
> 42 ▪*losing another family member*
> 43 ▪*having a family member diagnosed with a serious illness*
> 44 ▪*having to take care of an* [sic] *sick family member*
> 45 ▪*family conflict*
> 46 ▪*family violence*
> 47 ▪*marital conflict*
> 48 ▪*divorce*
> 49 ▪*household changes*
> 50 ▪*substance abuse stress*
> 51 ▪*financial stress*
> 52 ▪*health stress*
> 53 ▪*job loss*
> 54 ▪*job stress*
> 55 ▪*exams.*
>
> 56 *As can be seen, the stressors which can contribute to depression symptoms are*
> 57 *many and varied. And this is only a sampling--any stressor can contribute to*
> 58 *depression symptoms.*
>
> 59 *It's a Two-Way Street*

60 *Not only does stress contribute to depression symptoms, but depression*
61 *contributes to stress. Stress and depression research has confirmed this as well.*

87 *The reason that stress can contribute to both depression symptoms such as*
88 *sadness and to the illness of clinical depression is both biological and*
89 *psychological according to the stress and depression research. Science is*
90 *just beginning to understand how stress affects the body causing depression.*
www.depression-help-for-you.com (p. 4a1-4a3)

The "*two-way street*" metaphor in line 59 is used to illustrate the bi-directionality of the perceived relation. Rather than simply suggesting the possibility that stress and depression might mutually influence each other, the text first presents stress as a cause of depression. Later in the text, the bi-directionality of the relation is mentioned with the emphasis that research has equally confirmed the finding that depression also causes stress.

The bulleted list provides another example of the category inclusion strategy. The list could be shortened to: terrorist attacks, losing a family member (includes spouse, parent, child), having a sick family member (includes household changes and having a family member with an illness), family conflict (includes violence, marital conflict, divorce), and *stress* which seems to subsume the remainder of the items, if not all of the items. What the reader is left with is an impression of overwhelming research evidence linking stress to depression, and vice-versa. Which comes first, how they might mutually influence each other, what the perceived mechanism of action could be, and what is actually meant when the terms 'depression' and 'stress' are invoked are less clear.

4.6 Discussion

The six websites I analyzed in this manuscript employed two main discursive devices in constructing the relation of stress and depression. The first "moving target" device involved presenting the reader with multiple, competing constructions of the

relation between stress and depression. These constructions included asserting direct causality, lack of a relation, unknown cause, multiple causes, complex interactions, and personalized effects depending upon the individual. The inclusion of these various accounts led to mixed and conflicting messages being presented simultaneously to the reader so that every possible variation in the stress-depression relation was captured. The second device of "peddling in generalities" involved presenting vague assertions and broad category inclusions about possible causes of depression. This strategy often led to redundant and vacuous claims of the perceived relation of particular risk factors, including stress, in the development of depression. Throughout the analysis, I presented possible functions of these discursive strategies in the website text including: attempting to be faithful to conflicting research results found in the scientific literature, capturing the attention and identification of a wide readership, and establishing credibility as a source of 'fair' information in which opposing viewpoints are presented. In this section, I argue that these discursive devices are primarily used to appeal to as many users of the website as possible, accomplishing the goal of boosting the website's online presence (thereby attracting more users) and increasing the potential market for the advice, treatments, and products supported or endorsed by the specific websites.

Search engines, particularly Google, which handles the majority of Web queries, are known as the "gatekeepers of cyberspace" (Diaz, 2008, p.11). Google's search engine technology, PageRank, effectively ranks websites based on popularity, as determined by the number of links made from other "important" popular websites to the specific website in question (Diaz, 2008). A well-linked site appears higher in search results and receives greater "traffic," ensuring that popularity becomes the main currency

to boost a website's online profile (Diaz, 2008). This approach to ranking gives greater visibility to larger, well-connected websites at the expense of smaller websites (Introna & Nissenbaum, 2000), and has led media critics to emphasize that "search engines should not be seen as passively delivering health information to the user, but rather as actively influencing how health and medical information is sorted" (Mager, 2012, p. 5). In addition, given that profits through advertising, sponsorship, product placement, or paid placement in search results help to finance and support specific websites, as well as search engines, it becomes increasingly important to understand how online health information is mediated by various market forces (Diaz, 2008; Introna & Nissenbaum, 2000; Mager, 2012). As an example, Diaz (2008) cited a study by Google that found that, in 2005, advertisements on Google alone brought in over $6 billion dollars, which is a significant portion of the company's yearly revenue.

4.6.1 Drawing Users in the Door

In a variation of the foot-in-the-door sales technique, the cycling of certain and uncertain, general and specific, known and unknown information demonstrated throughout the text of these websites allows the reader to fill-in-the-blanks and glean material from the site that is most relevant to his or her particular life circumstance. In identifying with the website text on a personal level, users are 'hooked in' and more emotionally invested in the information presented to them by the website. The advantage of this strategy of cycling from known to unknown, specific to general information, is to establish the site as a source of "credible" information. This credibility is further supported by the correspondence of the text presented in the top three ranked websites, with the text found in the three larger, well-established and more recognizable websites

which use a similar strategy, if a user were inclined to compare. The mystery imbued in these concepts ensures that they are viewed with some concern, and constructed as significant enough to one's future health and well-being, for website users to consider what resources are available to them.

The text on the websites suggests that the two 'conditions' are capable of preceding or following one another in time, or existing independently on their own. Regardless of the direction of this relation, framing these concepts from a biomedical perspective establishes the necessity of being able to identify potential resources for management and 'treatment'. If unsuccessful at ameliorating these conditions on one's own, the website user is encouraged to pursue potential options recommended by the sites. The advantage of this approach to presenting information on the stress-depression relation is clear for promotional sites such as *Depression Help For You* and *Stress Anxiety Depression* who seek to promote specific products to alleviate stress and depression. Gaining user trust and endorsement has become especially important on the Internet with its increasingly commercial nature, with many Web producers relying on their online presence and visibility to boost revenues (Diaz, 2008). By constructing the stress-depression relation in this ambiguous manner, it reinforces the need to support the vast research being conducted on the topic and the various options available for treatment. In addition to treatments available for depression, stress management has also been critiqued for its increasing commercialized nature in the form of "stress-relieving" products and services (e.g., yoga, scented candles, health retreats) (Becker, 2010). Website producers can capitalize on this growing discourse of health concern about the negative effects of stress in targeting products for users. Search engines can likewise

increase their own revenues by providing personalized results to website users which allow advertisers and website producers to target consumers with products tailored to their specific history of search engine queries. Noncommercial websites might appear to be more "fair" and "objective," by not openly promoting products for purchase. Nonetheless, these websites also benefit from increased user visits in terms of boosting their online popularity and traffic, establishing their institutional dominance as a source of trustworthy information, and contributing to the dominance of the biomedical constructions of various forms of distress which support the practices of formal diagnosis and interventions for daily stresses.

Much of the information related to causes of depression was surprisingly consistent in this small subset of websites. Some of the information on the stress-depression relation was repetitive and almost identical in the use of broad explanatory frameworks to construct how specific causes might lead to the development of depression. As mentioned, invoking multifactorial, diatheses-stress, or biopsychosocial conceptualizations of illness development allow for personalized understandings that capture the unique life circumstances of a wide audience. Yet, the information is so general as to include every possible type of illness, not just depression, and every possible variation in cause, not just stress. One is left wondering about the incremental value of these 'information-rich' presentations that provide an unlimited list of relevant risk factors in the development of illness. I argue that the website text, in employing these discursive strategies, succeeds in creating the impression of providing important, personally relevant information for *every* reader. The top three ranked websites established their authority in offering *expertise* on the stress-depression relation by

employing a similar biomedical discourse on the stress-depression relation as the larger, medical health websites included in the analysis. The information users receive on the stress-depression relation on the top three websites will be substantiated when website users search other sites in the top ten results. Nettleton and colleagues (2005) examined lay use of the Internet for health, and classified a 'contingent' response, in addition to the 'celebratory' and 'concerned' responses to the development of the Internet as the main source of health information. In particular, participants attempted to present themselves as 'sensible' users of this medium, relying on what the authors term the "rhetorics of reliability" to judge information as more valid when it appeared frequently in a number of online sources (Eysenbach & Kohler, 2002). People who keep finding the same information repeatedly mentioned in multiple sources (regardless of its message) view it as more trustworthy, as it is assumed that many people must share the same perspective (Nettleton et al., 2005). This finding highlights the lack of awareness of how website producers can exploit search engine technology to boost their online profile, and how established sites perpetuate media convergence; rather than receiving diverse perspectives, users are presented with information online that tends to mirror traditional media forms where fewer producers create the majority of media (Seale, 2005). At the same time, the 'layered' presentation offered by the websites in providing various combinations of stress-depression relationships, along with lengthy lists of relevant risk factors and research claims, obscures the fact that underlying mechanisms have not been clearly delineated. Rather than being problematic, however, it is doubtful whether readers would be aware of the nonsensical nature of the research claims when presented together, or of the fact that websites abdicate from clarifying how the stress-depression

relation works. These discursive strategies appear to perpetuate the same difficulties found in the research literature in clarifying the relation between stress and depression, i.e., the presence of conflicting findings, broad and flexible usage of the terms 'stress' and 'depression', and differing interpretations of how the proposed mechanisms might work (Brown, 1996; Monroe & Harkness, 2005; Pollock, 1988).

4.6.2 The Highly Selective Nature of the Doors

While the sites examined in this study varied in terms of their category type (i.e., promotional versus informational) and institutional affiliation (e.g., government versus private), they all benefit from increased traffic whether through direct sales of products, assisting their advertisers or sponsors in being seen by more people, or boosting their own online presence and establishing authority as a credible source of health information. Website users might not always consider the selectivity of the websites presented to them in search results, and how the information on the site is used to construct a particular experience that might be more beneficial to the website producer, than to the user it appears to be designed for.

This study highlights the need for website users to be aware of how commercial interests shape the answers to their health queries. The 'moving target' and 'peddling in generalities' devices presented here suggest that engaging website audiences is of paramount importance to website producers. As such, presenting multiple constructions related to stress and depression that appeal to the widest possible audience, and making claims about the relation that captures the variety of circumstances people might encounter, primarily function to facilitate maximal reader engagement. The constructions from the six different websites often mirror each other, reflecting dominant

understandings of stress and depression. The constructions can be contradictory, general enough to capture any type of life circumstance, and provide little clarification about the stress-depression relation. These stress-depression constructions might not be troubling to the interested readers accessing the site. Website users might have found information relevant to themselves, consistent with their common-sense understandings of the world, and resonant with their own life experience, which might constitute a 'successful' search for both user and website producer.

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4.8 Appendix 1: Detailed Website Information

Website /specific subpage returned (website category)	Author(s)	Creator/ Owner	Last updated	Financial Sponsorship, Launch History
www.allaboutdepression.com /gen_05.html (informational depression website)	Prentiss Price, Ph.D	Dr. Price Counselling Psychologist	Sep. 9, 2004	Owned and maintained by Dr. Price Associate of amazon.com, accepts ads Launched July 2000 as part of Dr. Price's dissertation
www.stress-anxiety-depression.org (promotional mixed website)	Edward F Group, DC, ND, DACBN, DABFN -Various guest authors	Dr. Group CEO, Global Healing Center, Chiropractor, Nutritionist	Page specific	Promotional: sells alternative treatments Link exchanges Launch data not listed
www.depression-help-for-you.com /stress-and-depression.html (promotional depression website)	H. Paul Stanley, Ph.D	Dr. Stanley Counselling Psychologist	Not listed	Commissions from advertising and affiliates Launched March 2002
www.medicinenet.com Depression page: http://www.medicinenet.com/ script/main/art.asp?articlekey=342	Roxanne Dryden-Edwards, M.D. Dennis Lee, M.D. Editor: William C. Shiel, M.D.	Owned & operated by WebMD; healthcare media publishing company Produced by 70 US board certified doctors	Dec.1, 2009	Accepts advertising Separate sponsored content Payment for Yahoo sponsored links Launched in 1996
www.mayoclinic.com Depression page: http://www.mayoclinic.com/ health/depression/DS00175	Mayo Clinic staff and clinicians; Not specifically named	Mayo Foundation for Medical Education & Research	Not listed	Accepts advertising & sponsorship with guidelines Launched in 1998
www.nimh.nih.gov Depression page: http://www.nimh.nih.gov/health/ publications/depression/complete-index	Various authors; Not specifically named	US Government	Not listed	NIMH is part of the National Institutes of Health (NIH); component of US Dept of Health and Human Services Does not endorse commercial products Launch data not listed

Chapter 5

Manuscript 2: Constructions of Stress and Depression on Self-Help Websites:

Overlapping Discourses

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5.1 Introduction

Stress is a popular term that has been invoked by health professionals and lay persons alike as an explanatory model for illness (Becker, 2010, 2013; Brown, 1996; Donnelly & Long, 2003; Mulhall, 1996). There is a growing interest in this concept and its potential to affect physical and mental health (Grippo & Johnson, 2009; Pohlman & Becker, 2006). Despite this growing interest, definitions of the stress concept are quite varied. Stress has long been plagued with conceptual difficulties including being considered a *stimulus*, a biological *response*, and an *appraisal* of inadequate resources to meet current task demands (Brown, 1996; Lazarus & Folkman, 1984; Mulhall, 1996; Pollock, 1988; Rees, 1976). Stress is a versatile enough concept to simultaneously be considered a biological (e.g., fight-or-flight), psychological (e.g., appraisal of threat or harm), and social (e.g., environment, loss, trauma) risk factor for illness. Although clear causal mechanisms linking stress to illness have not been definitively established, this research area continues to grow (Donnelly & Long, 2003; Pollock, 1988).

5.11 Understanding the Relation of Stress to Depression

In the mental health field, specific attention is paid to the role of stress in the development and exacerbation of mental health conditions, particularly depression (Fried, Nesse, Guille, & Sen, 2015; Liu & Alloy, 2010; Pittenger & Duman, 2008; Slavich & Irwin, 2014; van Praag, de Kloat & van Os, 2004). The etiological role of stress in depression onset has been given greater support by neurobiological studies noting disruptions to the hypothalamic-pituitary-adrenal (HPA) axis (see review in Van Praag et al., 2004). However, definitions of depression have likewise been described as varying over time including being a transitory *mood* or *emotion*, a *symptom* associated with other disorders, and a commonly diagnosed *mental illness*

(Jackson, 1986; Kleinman & Good, 1985). Researchers have long debated the universality of depression as a biological disease and whether depressive illnesses are even discrete pathological entities (Kleinman & Good, 1985; Parker & Paterson, 2015). Endemic to these debates is the history of psychiatry's interest in providing nosological schemes to characterize clinical presentations of distress as mental illnesses (Markova & Berrios, 2012). Appreciating the historical and cultural bases on which psychiatric categories are based depends on understanding prevailing cultural views of pathology, normality, and etiology and the contested nature of mental health terms. The importance of language in constructing how these terms are understood and used becomes an important focus for inquiry.

A few studies have focused on how people come to understand the cause of their depressive experiences. An online survey examining causal beliefs in depression in a sample of 1829 New Zealand adults taking antidepressants found that the most frequently endorsed of 17 different causal beliefs were family stress, relationship problems, loss of a loved one, financial problems, isolation, and abuse or neglect in childhood (Read, Cartwright, Gibson, Shiels & Haslam, 2014). This study emphasized the role of difficult life circumstances as the perceived cause of depressive episodes. These causal beliefs loaded onto three factors using factor analysis: 'adulthood stress,' 'childhood adversity,' and 'bio-genetic' indicating that despite taking antidepressants, the majority of participants continued to emphasize psychosocial causes for depression, and stress in particular (Read et al., 2014). Another published study using a meta-analysis found that over a 16-year time frame, public endorsement of 'genetic' and 'brain-based' causes of depression increased by 20 and 16% respectively (Schomerus et al., 2012). Despite this, the public still favored psychosocial causal explanations as there was no corresponding decrease in endorsement of 'stress', which also increased over the 16-year time

period by 5% (Schomerus et al., 2012). An exploration of patients' beliefs about the causes of their depression in a sample of 303 Swedish patients found that 16 categories of explanations fell into three themes: current life stressors, past life events, and constitutional factors, with biological explanations occurring rarely (Hansson, Chotai, & Bodlund, 2010). These studies support the notion that the public is fairly persistent in citing stress as a cause of depression, even with other causal ontologies growing over time. Given that patients invoke stress as a cause of depression, the current research explored how these two health concepts are constructed on the public discourse of self-help websites.

5.12 Seeking Mental Health Information Online

Many individuals conduct online health searches as a first step in investigating treatment options (Pew Internet Survey, 2013). In a survey of American adults in 2013, 59% of adults looked for health information online within the past year, with 77% of online health seekers stating they began their search at a search engine (Pew Internet Survey, 2013). For mental illnesses in particular, online users may be less worried about the social stigma in obtaining online help and prefer the privacy, anonymity, and ease of the Internet in investigating treatment options. In response, numerous websites have appeared claiming to provide information and assistance on various mental health topics (e.g., PsychCentral, MoodGym). Much of the research on stress and the Internet focuses on the growth and efficacy of Internet-based interventions (IBI's) (Amstadter, Broman-Fulks, Zinzow, Ruggiero, & Cercone, 2009; Christensen & Petrie, 2013) or the quality or medical accuracy of online health information (Boyer, Gaudinat, Baujard, & Geissbuhler, 2007). To my knowledge, no studies have examined how the topic of stress is constructed online, particularly in its relation to depression. There have been a few studies examining constructions of depression online (Gardner, 2007; Gawley, 2007).

These studies have found that depression is frequently constructed as a serious medical condition requiring pharmacological treatment (Gawley, 2007). Likewise, gendered discourses of depression have been found to re-frame social problems disproportionately affecting women (e.g., poverty, abuse, childrearing demands) as "risk factors" for depression that need to be monitored and treated. These studies examined specific types of websites such as pharmaceutical company websites (Gawley, 2007), and health policy and consumer advocacy organizations (Gardner, 2007). These studies did not review websites that are found as a result of a query in a search engine – a common way that individuals obtain health information (Pew Internet Survey, 2013). Additionally, most people do not search beyond the first page of search results, highlighting the importance of being ranked in a top ten position in a search engine to increase visibility by website users (Mager, 2012; Morahan-Martin, 2004). As well, there have been no studies taking a critical approach to examining the relation of stress to depression as it is constructed online. Critical Internet studies have called for greater attention to be paid to how health terms are constructed, rather than focusing simply on online accuracy or efficacy of Internet-based health interventions (Seale, 2005). My approach to this research from a social constructionist epistemology provides new insights into how language is used to construct these health topics in particular ways to website users.

5.2 Methodology and Epistemology

I used discourse analysis (DA) as my methodological approach to examining the website text. Discourse analysis is an umbrella term that includes various approaches to examining language use in different contexts. In discourse analysis, language is viewed as social action, that is, we accomplish things with words when we use them in certain ways (Potter & Wetherell, 1987). In particular, I examine specific discursive features of the website text to explore how the

language of the website accomplishes specific ends (Potter & Wetherell, 1987). I approach this work from a social constructionist epistemological framework which is based on the assumption that how people think is influenced by the conceptual frameworks available to them through language (Burr, 1995). In this view, various concepts and ideas are believed to be produced through language. This *constitutive* view of language suggests that *how* people interact with each other is important to understanding how our world is constructed (Burr, 1995; Potter & Wetherell, 1987). This approach does not deny that reality exists (an ontological argument), only that it is socially constructed through language (an epistemological position) (Burr, 1995; Edley, 2001). Discourse analysis is a methodological approach that enables closer study of how language is used to construct particular understandings of the world.

5.2.1 Analytic Process

Particular attention was paid to selections of text referencing both 'stress' and 'depression'. The following research questions guided the analysis: *How do the self-help websites construct the terms 'stress' and 'depression'? What discursive devices are used to achieve this portrayal? How do the two terms relate to each other? What are the possible functions of this construction?* Analysis involved reading through the website text multiple times, both offline and online. I focused specifically on extracts linking stress and depression together and isolated these extracts for further analysis. I made notes on how these two topics were linked and compared and contrasted the material from all six sites. I then returned to examine the extracts in the full text of the entire website to determine how the parts related to the overall script of each website separately. Patterns in the text were analyzed, examining variability and consistency in the text (Potter and Wetherell, 1987). Close attention was paid to what was said about the topics of stress and depression, how it was said, and to the possible

function of these constructions. Analysis is an iterative process and the text was cycled through many times. As patterns were identified in the text, the full website text was re-examined in order to trace the ways in which various constructions were used and to what effect.

5.3 Method

5.3.1 Data Selection

Between the period of July 2009 and November 2010, I conducted 14 separate Google searches on nine separate dates. Each search consisted of entering various combinations of the following words: ‘stress,’ ‘depression,’ ‘self-help,’ and ‘manage’. The top ten results of each search were saved and compared for type of website, rank order, relative rank, and frequency. Sixty-one distinct websites were returned in total. A purposeful sample of 30 websites was chosen for closer analysis, representing websites both high and low in the rank order, and representing different institutional affiliations (e.g., government, university, etc.). For the current manuscript, a subset of six websites was examined. These six websites were chosen from a Google search conducted on October 1, 2010 using the following search terms: ‘stress,’ ‘depression,’ ‘self-help’. Websites both higher and lower in the top ten rank were included in the analysis as represented in Table 1.

Table 1: Search Result Rankings

Search Terms:	Date of Access:	Website Name:	Rank:
stress, depression, self-help	October 1, 2010	Help Guide	1
		Conquering Stress	2
		Stress Group	3
		Stress Help	4
		Undoing Depression	8
		Mental Health Matters	10

At the time of the search, material from the websites was printed and a screen capture was made of the image homepage, as the information on webpages can be updated and changed

frequently. Additionally, website text was saved in an electronic file to facilitate data management. Both the printed material and electronic files were numbered consecutively for ease of reference and citation purposes. Line numbers of the printed text were added to facilitate easy location of selected extracts in the manuscript.

5.4 Analysis

5.4.1 Website Descriptions

A brief descriptions of all six websites is provided next to give a context for the extracts chosen for analysis. The *Stress Help* website claims that it is a *"voluntary, self-help organization run by qualified health professionals who also suffer with anxiety and depression"* (Retrieved from www.stresshelp.tripod.com). This site makes the claim that not only are its authors "professionals", but also fellow 'sufferers' of these conditions. *Stress Help* is a UK-based organization that has constructed its website using Tripod, a free website builder. The site contains links to various mental health topics organized by diagnosis (e.g., bipolar disorder, agoraphobia, PTSD, etc.). The arrangement of topics by diagnostic labels suggests the influence of professional mental health nosology used in the fields of psychology and psychiatry to organize the information. However, the site also describes various complementary and alternative self-help treatments (e.g., nutrition, massage, medication, herbal medicine) which provides the website users with additional options to improving symptoms. The extracts examined from this website were obtained from the "Stress and Depression" link specifically. This header immediately establishes the connection between the two health constructs by combining them in a separate section. This website appears to be a source of general mental health information, and does not market specific products for sale. The website clarifies its voluntary, self-help nature which contrast other sites which may have for –profit goals as well.

The *Undoing Depression* website claims to be launched by private psychotherapist, Dr. Richard O' Connor. The author states that he has also experienced depression and *"want[s] this website to be a place where people can find the tools they need to live better"* (Retrieved from www.undoingdepression.com). Again, this website establishes that its author is not only a mental health professional, but someone who has experienced depression first-hand. This admission might represent an attempt by the website to establish credibility with website users regarding understanding the personal experience of mental illness. The site appears to provide information on various topics including Living Well, Self- Help, Recommended Reading, etc., while at the same time promoting the author's own books for sale. The author has teamed up with Amazon to advertise his four books entitled: *Happy At Last: The Thinking Person's Guide to Finding Joy*, *Undoing Depression*, *Undoing Perpetual Stress: The Missing Connection Between Depression, Anxiety, and 21st Century Illness*, and *Active Treatment of Depression*. Direct links to Amazon allow easy purchase of the author's books and also provide Amazon with advertising at the same time. The author includes contact information for his private practices in New York and Connecticut.. *Undoing Depression* is a website that offers self-help information but also actively promotes the author's private psychotherapy practice and books to solicit clients and consumers

The *Stress Group* website states that it *"provides free information for those suffering with mental health issues. Experts in the field of depression, anger management, anxiety disorders, stress and other mental health fields have contributed their expertise to bring this comprehensive resource together. We are dedicated to providing quality information at no charge"* (Retrieved from www.stressgroup.com). This American-based website offers information on different topics including depression, anxiety, herbal remedies, online counseling, and self-help articles.

There are direct links to access counselors in person in the Tampa, Florida region. The website also provides links to access online counselors, available 24 hours a day 7 days a week, at the rate of under $2.00 per minute. These online counseling services are delivered via chat format or by email. The website also has advertising banners promoting the purchase of various herbal products for the relief of mental health symptoms. While the site provides general mental health information, commercial interests are also promoted.

The *Conquering Stress* website, accessed on October 1, 2010, is no longer in existence at the time of writing this manuscript. A search for the website by title and author brings up different webpages, but none leading back to the original downloaded web pages. The disappearance of this website highlights the constantly shifting nature of the Internet, and how top-ranked websites can disappear as quickly as they arrive on scene. The site's author, identifying himself as Chris Green, is promoting his book, also entitled *Conquering Stress*, for purchase by website users. This website is more clearly commercial as it makes bold claims about the author's permanent cure for mental health problems, as detailed in his book, which must be purchased before further information is provided. The site also lists numerous anonymous testimonials from alleged happy customers who found satisfaction after their purchase. Interestingly, the only recent reference I was able to find for the author and his book on the Internet was a link to a Youtube video questioning the veracity of the author's claims. It is important to examine websites such as these that can be found in a top-ranked position within a search engine for a period of time, and which draw in a large amount of user traffic, then literally disappear without a trace.

The *Mental Health Matters* website claims it *"strives to offer detailed yet easily understood technical briefs on a variety of disorders, issues, symptoms, treatment modes, and*

medications. With this information, we hope to educate consumers and guide them towards intelligent decisions in the pursuit of mental health" (Retrieved from www.mental-health-matters.com). The website offers links to numerous articles spanning various mental health topics including stress, anxiety, depression, grief, self-esteem, relationships, etc. The website's *About Us* section describes that the website was purchased in 2010 by Carron Consulting, a private psychotherapy consulting firm based in the UK. The website offers a disclaimer that the article links provided by the website are authored by many different people and the website's owners and operators are not responsible for the content which remains the sole liability of the authors who write the articles. It appears that anyone can submit an article to be included on the website.

The sixth website included in the analysis is *Help Guide*. According to the website, its *"mission is to improve mental and emotional health by providing free online self-help information and tools that have been proven successful in treating mood disorders"* (Retrieved from www.helpguide.org). In the *About Us* section, the website's co-founders, Jeanne and Robert Segal, report that they started the website in 1999 after the loss of their daughter to suicide. In terms of commercial interests, the website states, "*our policy of not accepting advertising or corporate sponsorship gives us complete editorial autonomy and the freedom to focus on the most successful sources of support for our visitors and their loved ones*" (Retrieved from www.helpguide.org). The site states that it accepts donations from website users. They have a list of specific contributors who provide information on the site, including the co-founders who are cited as having professional backgrounds in Psychology.

5.4.2 Borrowing from Depression Discourse

The websites examined in this manuscript, whether focusing primarily on stress, or depression, or the relation between the two concepts, showed considerable similarities in how the two concepts were constructed. The text often appeared to 'borrow' from depression discourse when describing stress in terms of constructing stress as an illness, possessing a similar symptom profile to depression, and drawing parallels to depression in terms of postulated causes, management, and treatment. Both the stress and depression concepts showed significant flexibility in how the terms were defined and used within the websites. This flexibility allowed the terms to represent temporary mood states, causal factors in the development of other illnesses, and as well as serious mental health conditions At times, the two terms even appeared to be able to substitute for each other, rendering them indistinguishable from each other. These two labels function to capture experiences of distress, and may not be as distinct or unique as suggested within the mental health literature.

5.4.2.1 Illness Construction. Constructing the stress concept as another mental health condition, alongside depression and anxiety, grants 'stress' illness status. This construction raises the profile of stress as a serious health concern. Listing what is commonly believed to be a causal factor, along with the other mental health issues it was previously assumed to cause, contributes to the construction of stress as an illness in its own right. In the *Conquering Stress* website, the text uses the approach of debunking commonly held myths of mental illness as a self-help strategy:

> 10*Around 18 million US citizens suffer from stress, depression and anxiety every year*
> 11*and for many of them, understanding why they endure the torment is difficult to*
> 12*establish. This is because of the many "magic bullet myths" associated with these*
> 13*problems. Here are five self-help steps for depression, anxiety and stress to bring relief*

> 14 *quickly along with the root cause as to why stress, anxiety and depression arise.*
> www.conqueringstress.com (p.13A1)

All three terms (stress, depression, and anxiety) are listed together in this extract repeatedly, albeit in a different order each time in lines 10, 13, and 14. Frequently listing these terms together in this manner appears to equate them to the larger category of mental illnesses. The use of negatively-valenced words, *"suffer from"* (line 10), *"endure the torment"* (line 11), "*problems"* (line 13) contributes to the construction of stress as a pathologized mental health condition with deleterious effects. Listing these three terms together when discussing the number of people afflicted, common myths, and self-help strategies, functions to group them as general mental health concerns. Stress is not differentiated as a causal factor in the development of depression and anxiety in this extract. It is presented alongside them as another mental health condition that one is likely to encounter. There does not appear to be any hierarchy suggested between the terms, or any specific relation described among the three conditions. The inclusion of all three conditions might also function to assist the website in casting a wider net to draw in as many users as possible who might be approaching the website from various diagnostic or symptomatic perspectives. This makes the website appear to be applicable to all three conditions and not exclusive to one diagnostic category.

The impression of these terms as being equivalent mental illnesses is reinforced when the text states that the approach to self-help advocated on the website is to debunk five commonly understand causal theories for mental illness: *"chemical imbalances in the brain"*, *"nutritionally deficient diet"*, *"toxins"*, *"trauma"*, and *"genetics"* (www.conqueringstress.com, pp. 13A1-13A2). These "myths" have been traditionally associated with mental illnesses such as depression and anxiety and are used here as causal factors in the development of the 'stress' condition as well. Given the dominance of the chemical imbalance hypothesis in the etiology of

depression, it is interesting to note its use here in discussing the etiology of stress. The shared causal factors and the presumed similarities in the experience of stress, anxiety, and depression, give the impression that these conditions might not differ markedly from one another. Consider the following extract:

> 58*The problem with all of the above is that they shift focus from outside yourself to try*
> 59*and find a "magic bullet" (drugs, diet, events, genetics, toxins) when the answer to*
> 60*them lies within yourself. None of the above can cause depression and therefore, you*
> 61*cannot find a cure by addressing them. The best self-help for depression, stress and*
> 62*anxiety is done [sic] by treating the root cause and that root cause lies in the way you*
> 63*make sense out of everything in your life. Once the root cause has been successfully*
> 64*addressed using a combination of knowledge, understanding and personal skills, stress,*
> 65*depression and anxiety will never cause you anguish ever again.*
> www.conqueringstress.com (p.13A2)

The text in this extract postulates that the reviewed causes, which are external and *"outside yourself"* (line 58), are not the *"root cause"* (line 63) of problems such as stress, anxiety and depression. This statement suggests that a root cause *can* be determined in the first place, and distilled into *a single true* source which is *internal* to the individual. And this presumed source is believed to be equally applicable to stress, depression, and anxiety alike, suggesting that these conditions are not so different from one another. The presumed cause in this extract *"lies in the way you make sense out of everything in your life"* (lines 62-63). This statement suggests these three conditions share a common etiology, one in which the individual creates the problem by inaccurately interpreting life events. This construction has implications for discourses of mental illness that emphasize personal responsibility. Constructing mental illness in this way has potential empowering effects (i.e., if one can cause these conditions by how one thinks, it follows that the solution is to change one's interpretative process). This construction can also be potentially damaging if someone is unable to change their thinking, leading to feelings of failure or self-blame if unsuccessful. Interestingly, the text lapses into describing depression alone,

"none of the above can cause depression" (line 60), then appears to self-correct in the next sentence, *"the best self-help for depression, stress and anxiety"* (lines 61-62). The brief lapse back to focusing on depression alone reinforces the impression that the depression discourse has been expanded to include stress and anxiety as well.

5.4.2.1.1 Symptom overlap. Similarities also exist between how stress and depression are constructed as mental health illnesses with their own attendant symptom profiles. These symptom profiles tend to overlap in significant ways, which suggest that either label, stress or depression, could be responsible for the clinical presentation. In the following extract from *Mental Health Matters*, stress is framed as a mental health condition with its own specific symptoms:

> 18 *The Physiological and Psychological Symptoms of Stress*
>
> 19 *There are a number of physiological and psychological symptoms of stress that may be*
> 20 *experienced. Seeing that this particular response in the body is actually unique per*
> 21 *individual, it is important to learn how your body reacts to stress personally. The*
> 22 *following symptoms are most common to the individual experiencing this condition.*

- 23 *Many may experience pain in the body when they experience stress. This pain may be* 24 *localized to the head and/ or back area.*
- 25 *Sleep disturbances, such as insomnia may become present.*
- 26 *Many individuals may experience fluctuations in weight.*
- 27 *Many may find that the muscles throughout their body are stiff and sore when they* 28 *experience stress.*
- 29 *If an individual experiences stress consistently, it is very likely that the immune system* 30 *will become jeopardized quickly. This means that he or she may suffer from* 31 *sicknesses more frequently.*
- 32 *Gastrointestinal complications are quite common when it comes to individuals who are* 33 *experiencing stress. It is not uncommon for someone to experience bouts of diarrhea,* 34 *nausea, and even vomiting.*
- 35 *Difficulty remembering things and concentrating is common when high levels of stress* 36 *are experienced.*

- 37*Individuals may experience severe moods swings. This includes experiencing* 38*depression and anxiety.*
- 39*Individuals who experience stress have a difficult time making choices and thinking* 40*rationally.*
- 41*When stressed, one will find it hard and troublesome to relax.*
- 42*Having a "short fuse" or getting angry quickly is a common result of stress.*
- 43*Many who experience stress may suffer from the emotional effects of feeling lonely* 44*and isolated from others…*

  45*There are many physiological and psychological symptoms that can be experienced* 46*with stress. However, the exact definition of stress varies from person to person and* 47*impact one's life differently, according to his or her circumstances.*
  www.mental-health-matters.com/stress/1385-what-is-the-definition-of-stress
  (p. 21A1-21A2)

With this long list of relevant symptoms, website users can begin to scan their bodies and minds for areas of difficulty "*common to the individual experiencing this condition"* (line 22). While the website does not diagnose readers with Stress (capitalized to represent the mental health condition), it elevates the risk potential in not 'treating' the condition as the numerous symptoms outlined above will remain untreated. The construction of risk and dysfunction in this extract further supports the necessity of medical intervention. There is considerable overlap presented in this list of symptoms of Stress, with other conditions such as depression and anxiety. For example, according to the DSM-V™, Major Depressive Disorder is also characterized by sleep disturbance (line 25), weight fluctuations (line 26), psychomotor agitation (line 41), diminished ability to think or concentrate (line 35), and indecisiveness (line 39). There is also overlap with DSM-V™ diagnostic criteria for Generalized Anxiety Disorder, including irritability (line 42), muscle tension (line 27), sleep disturbance (line 25), and difficulties concentrating (line 35), as well as overlap with Panic Disorder, including abdominal distress (lines 32-34). The link between stress and mood difficulties is stated more explicitly in line 37 when a 'symptom' of stress is *"severe mood swings"*. Here *"depression and anxiety"* (line 38), thought to represent

‘mental health conditions,’ are included here in the more diffuse category of ‘mood swings’. Rather than stress being a *cause* of these conditions, depression and anxiety are constructed as *symptoms* of stress. The text downgrades depression and anxiety from mental illnesses to transient mood states. These examples demonstrate how easily these concepts expand or contract depending on their use in language. It is possible to see from this list how almost any reader can find a combination of symptoms that best matches his or her clinical presentation. And if there are doubts, website users are assured that “*it is important to learn how your body reacts to stress personally”* (line 21) and *“the exact definition of stress varies from person to person”*(line 46) making room for atypical presentations as well. Rather than constructing stress as an illness, it is possible to conceive that stress can be experienced in multiple ways and that this list represents different methods for expressing distress, instead of being signs and symptoms of a mental health condition.

5.4.2.2 Definitional Abstraction. The websites included in this analysis showed notable flexibility in how the stress concept was defined. This definitional plasticity allows the stress concept to be used in a multitude of ways, similar to how depression has been flexibly used to represent everything from a temporary emotional state to a major mental illness. For example, the *Mental Health Matters* website begins its stress section by defining the concept for the reader:

> 01*What is the Definition of Stress?*
> 02*Stress is a very common issue among all individuals. It has been discovered that all*
> 03*people, regardless of age and social status, experience some degree of stress…we each*
> 04*have a response that is actually instinctual and ultimately for self-protection. Many*
> 05*medical professionals refer to this as the ‘fight or flight’ response. When our brain*
> 06*interprets a danger, or experiences a high level of anxiety, this response is*
> 07*initiated…Stress can be experienced in many different situations, in many times in a*
> 08*person’s life…Stress is a unique and personal experience. No two people will*

09*experience stress in the same way as another."*
www.mental-health-matters.com/stress/1385-what-is-the-definition-of-stress (p. 21A1)

This extract begins by querying the definition of stress, suggesting that the meaning of this word needs to be clarified. This extract favors the 'response' component of the stress definition, characterizing it as a survival response ("*response that is actually instinctual",* line 4), and equating stress to the body's *"fight or flight response"* (line 5). This 'response' definition contrasts with the definition of stress as an *"issue"* (line 2) that people have to deal with as suggested earlier in the extract. If stress is an innate biological response, it is assumed to be widely experienced by everyone – a universal human characteristic. This view is emphasized by using the word *"all"* before *"individuals"* (line 2) and *"people"* (lines 2-3). If stress is an *"issue*,*"* by contrast, the implication is that it may be of concern to some individuals, but not others. This latter definition implies that there are individuals who are unaffected by stress. The extract above also utilizes multiple ways of characterizing the stress concept which add to the abstraction. The extract describes stress as pervasive (*"very common"*, line 2) yet idiosyncratic as *"no two people will experience stress in the same way"* (lines 8-9). The stress 'response' is said to be widespread and common, while simultaneously being highly personal and unique. The concept has been used in a myriad of ways in this short extract: as common ailment, as idiosyncratic expression, as instinctual biological response, and as a mental health issue.

These competing definitions of biological response in the body, or occasional mental health concern, offer different health implications. The former construction suggests that the innate biological system, which has evolved to ensure survival, has gone awry in terms of its overall functioning. The latter construction suggests stress is a targeted problem for a select few who are 'afflicted' by it. These competing constructions differ in scale and scope of the problem. Is stress considered to be universal or highly individualized? These same queries have

been leveled at the depression concept between researchers who argue universality versus a culturally constructed phenomenon. If stress can capture these differing meanings, it becomes slippery to pin a concise definition to it. Yet, finding specific definitions and 'operationalizing' is often the aim within research in the mental health field. This flexibility can be considered problematic if one is searching for a single 'true' definition of stress. The difficulty in operationalizing stress has been a critique of stress researchers working within a post-positivist experimental paradigm who believe that the stress term lacks conceptual clarity. However, positioned within a social constructionist epistemological framework, multiple definitions of stress are to be expected as the term serves different functions within discourse.

Similar to the *Conquering Stress* website described earlier, the *Undoing Depression* website also constructs value in a stress-free life with seemingly no benefits to be gained from accessing negative feeling states. This construction can help a reader feel valorous when successful in reducing and eliminating stress, but possibly shameful and weak, if not. Consider the following extract:

> 01*There are two major ideas in the book* [*Undoing Perpetual Stress: The Missing Link*
> 02*Between Depression, Anxiety and 21st Century Illness*]: *The first is that our nervous*
> 03*systems are not built for the stresses of the 21st century. Though we talk about*
> 04*"stress," we are largely unaware of just how much unseen stress we are constantly*
> 05*immersed in – stress that affects us in the mind, brain, and body. In an effort to cope,*
> 06*we develop what I call the Perpetual Stress Response – the fight or flight response*
> 07*stuck in the "on" position…We feel the effects of the vicious circle of Perpetual Stress*
> 08*in many different ways: as depression and anxiety; as physical symptoms; as*
> 09*motivations for addictions; as dysfunctional relationships; and as empty, unhappy*
> 10*lives…just as our brains and nervous systems are vulnerable to the damage of stress,*
> 11*we have the power to heal that damage by making deliberate choices about how we*
> 12*live. The new neuroscience is showing that the brain is constantly changing in reaction*
> 13*to experience; thus, we can literally rewire our own brains.*
> www.undoingdepression.com (p. 19A3-19A4)

At the surface, this extract is primarily promoting the author's books for sale (lines 1-2). The text also demonstrates how malleably the stress concept can be used. The text features the environmental *stimulus* version of the concept when referring to the *"stresses of the 21st century"* (line 3), *"unseen stress"* (lines 4), and *"stress that affects us in the mind, brain, and body"* (line 5). This version of the stress concept implies that the term is referring to something negative and external to the person that can cause deleterious internal effects. The text increases the risk rhetoric of stress, stating that we are *"constantly immersed"* (lines 4-5) in this *"unseen"* (line 4) entity, heightening the need to take action. This is followed shortly, by the physiological *response* version of the term, *"we develop what I call the Perpetual Stress Response"* (line 6), and *"the fight or flight response"* (line 6). In this short extract, stress refers both to the stimuli that causes changes in a person, as well as referring the change responses themselves. Finally, the text also highlights that stress can be experienced as *"depression and anxiety"* (line 8), *"physical symptoms"* (line 8), *"addictions"* (line 9), *"dysfunctional relationships"* (line 9), and *"empty, unhappy lives"* (lines 9, 10). This expansion of the effects of stress is the first indication that stress can manifest in a multitude of ways ranging from other mental health issues, somatic complaints, interpersonal problems, and overall feelings of dissatisfaction with life. The text reveals the numerous ways that distress is 'made visible'. While different terms can be applied to these various problems in life, they share the characteristic of expressing distress. On a more basic level, one can consider this text from a common-sense point of view. That is, it is the nature of our nervous system to be able to adapt to our environment. These, in essence, are the experiences of learning and growth which enable humans to adapt and thrive. Viewed from this perspective, the fact that *"the brain is constantly changing in reaction to experience"* (lines 12-

13) is hardly *"new neuroscience"* (line 12), although our ability to verify and quantify these brain changes has improved considerably with technology.

5.4.2.2.1 Use of metaphors and analogies. Given the degree of abstraction inherent in the stress concept, the website text takes advantage of the use of metaphors and analogies to help explain the concept. When stress is believed to be uncontrolled, the stress as 'alarm' metaphor is used. This metaphor constructs the stress alarm as 'faulty', either firing indiscriminately, or out of proportion to the current circumstance. The 'alarm' construction opens possibilities for stress management interventions in which one is taught to modify physiological arousal through relaxation strategies, or to challenge threat appraisals triggered by the alarm reaction. In parallel fashion, explanatory models of depression situate the locus of dysfunction in the disorder to neurochemical abnormalities in the brain which trigger negative and stereotyped thought patterns. While patients are taught to test the 'reality' of the danger of their alarm response in stress management interventions, patients with depression are taught to identify and modify 'faulty cognitions'. Consider the following extract from the *Stress Group* website:

> 01***We all have stress. So what is it, and better yet, how do we keep control of it??***
>
> 02***What is stress?*** [bold in original]
>
> 03*Stress is a normal human emotion; it is how you react to the pressures – the stressors –*
> 04*in your life. We all have pressures to some extent or another. Therefore we all have*
> 05*stress. The goal is* ***to minimize your reactions to the pressures*** *and then you'll* **feel**
> 06***less stress****. The good news is that* ***stress management is a learnable skill****. Although*
> 07*some folks have better predispositions to handling stress via their genetics, for the most*
> 08*part you can learn to handle stress, much like you learned your ABCs.*
>
> 09***Stress is a DANGER ALERT! That goes off in your head****. The number of bells,*
> 10*sirens, and flashing lights – the intensity of the ALERT – depends upon how you*
> 11*perceive the pressure (stressor). The* ***stronger you see the pressure*** *to be, the higher*
> 12*the alert!*

13*Even more specifically, the* ***stress ALERT is a false alarm****. We're all born with this*
14*system and it's actually a good thing. But the scientific reason we have it is to help us*
15*in dealing with actual physical danger.*

16*A physiological response is triggered when the DANGER ALERT! Goes on. You've*
17*heard of it, it's called* ***"fight or flight,"*** *and it's the natural instinct that helps us to run*
18*from danger or stay and fight it.*

19*It's* ***very normal*** *to feel afraid when you are in real and immediate physical danger. In*
20*fact your body may get pumped up with adrenaline, which in turn may keep you safe,*
21*even alive. But most of the time* ***when we feel stressed there is not really a real or***
22***immediate danger****. It's a false alarm ringing in our heads. It's like a* ***fire alarm***
23*going off, but* ***there's no fire****.*

24*The best course of action though is to* ***avoid getting stressed to begin with****. Although*
25*staying un-stressed all the time* ***is more of a goal than an attainable permanent state,***
26***there is much you can do to help yourself.*** www.stressgroup.com (p. 14A3)

Definitional abstraction is also seen in this text which similarly begins with a question about the definition of the stress concept. The extract initially defines stress as an *"emotion"* (line 3), rather than a 'response'. However, it then goes on to describe the stress *"reactions"* (line 5) and interpretive process, *"how you react to the pressures"* (line 3) as integral to the stress concept. The extract again likens stress to the *"fight or flight"* system (line 17). There are now familiar references to stress being ubiquitous (*"we all have stress",* line 1), universal (*"normal human",* line 3), and capable of being controlled (*"you can learn to handle stress"*, line 8). The case for the ease of managing stress is made by comparing it to learning the *"ABCs"* (line 8). The text then shifts to numerous metaphors to help 'explain' the stress concept. More specifically, by stating that *"the* ***stress ALERT is a false alarm****"* (line 13), the text clarifies that despite this signal being activated, there is no justifiable reason to become distressed. ***"Stress is a DANGER ALERT!"*** (line 9), replete with *"bells, sirens and flashing lights"* (lines 9-10). This sensory description enlivens the stress imagery. The use of bolded text and capital letters reinforces the intensity and urgency of the alarm. The text uses an analogy to emphasize this point. The 'fire alarm in the absence of a fire' analogy is used to highlight that the alarm occurs in the absence of

a real danger, *"It's like a **fire alarm** going off, but **there's no fire**"* (lines 22-23). The website user is faced with the difficult option then of *"avoiding getting stressed to begin with"* (line 24), or *"minimiz[ing] your reactions to the pressure"* (line 5). No guidance is provided here about how one might accomplish this task.

Similarly, the *HelpGuide* website constructs stress as a 'switch' that is activated when one is overwhelmed:

> 01*Effects of chronic stress*
>
> 02*The body doesn't distinguish between physical and psychological threats. When*
> 03*you're stressed over a busy schedule, an argument with a friend, a traffic jam, or a*
> 04*mountain of bills, your body reacts just as strongly as if you were facing a life-or-death*
> 05*situation. If you have a lot of responsibilities and worries, your emergency stress*
> 06*response may be "on" most of the time. The more your body's stress system is*
> 07*activated, the easier it is to trip and the harder it is to shut off.*
> www.helpguide.org/mental/stress_signs (p. 12A1)

The stress response is described as a switch being stuck in the *"on"* (line 6) position. This 'switch' is portrayed as easily tripped and hard to *"shut off"* (line 7). The text clarifies that modern stressors do not always involve physical threats as daily hassles in terms of a hectic schedule, interpersonal conflict, or bills can 'trigger' a response. The evocative language helps the website user understand why and how they have difficulties dealing with daily demands. In this extract, the text is less pathologizing as the idea of an off/ on switch for stress implies that some important threshold of tolerance has been breached. After this crucial point is reached, *"the easier it is to trip"* (line 7) the 'switch'. This website continues to use analogies to help explain the effects of stress:

> 01***How do you respond to stress?***
>
> 02*Psychologist Connie Lillas uses a driving analogy to describe the three most common*
> 03*ways people respond when they're overwhelmed by stressed:*

- 04***Foot on the gas*** *– An angry or agitated stress response. You're heated, keyed up,* 05*overly emotional, and unable to sit still.*
- 06***Foot on the brake*** *– A withdrawn or depressed stress response. You shut down, space* 07*out, and show very little energy or emotion.*
- 08***Foot on both*** *– A tense and frozen stress response. You "freeze" under pressure and* 09*can't do anything. You look paralyzed, but under the surface you're extremely* 10*agitated.* www.helpguide.org/mental/stress_signs (p. 12A3)

The website quotes the research of a psychologist who borrows the driving analogy to illustrate the ways in which individuals might manifest their stress response. While simplifying the stress response into three easily identifiable types, the characterizations offered have subtly negative connotations. For example, the *"foot on the gas"* (line 4) type is described as *"overly emotional"* (line 5) – a characterization that is rarely used to be complimentary. The *"foot on the brake"* (line 6) is described as *"shut down"* and *"space*[d] *out"* (lines 6-7). The *"foot on both"* (line 8) type *"can't do anything"* (line 9). While the use of metaphors and analogies in language stimulates evocative imagery, it can at times oversimplify and/ or constrain how one talks about an experience.

5.4.2.3 Interchangeable Concepts. At various times, throughout the text of the *Stress Help* website, the stress and depression concepts appeared to be able to stand in for one another, almost as if it did not matter which term was used. Switching back and forth between these two concepts has the effect of making them appear interchangeable. *Stress Help* has its own *"Stress and Depression"* section within the website. The inclusion of this specific section header provides another indication of how closely these topics are believed to be linked. The header suggests that this section will provide an area for exploring the relation between stress and depression further. However, the text in this section begins by listing potential causes of depression instead:

> 01*Stress and Depression*
> 02*Depression is partly in our genes, partly in our childhood experience, partly in our way*
> 03*of thinking, partly in our brains, partly in our ways of handling emotions…"*
> www.stresshelptripod.com (p.15A3)

The extract begins to list the causal ontologies for depression ranging from genetics, childhood experiences, brain characteristics, and psychological factors. Despite the title to this section appearing to focus on the relation between stress and depression, the text appears to focus exclusively on depression (i.e., *"Depression* is*"*, line 2). This parsing out of relevant factors suggests each factor offers incremental information, as they *"partly"* (lines 2 and 3) explain the depression story. The adverb, *"partly,"* is used five times in this short extract, emphasizing the fact that no single factor fully accounts for depression. While this listing function may be alluding to the multifactorial etiology of depression, it provides a vague explanation of the relation between stress and depression. The text might be suggesting that stress is caused by these same etiological factors as well, i.e., genes, childhood experiences, thought patterns, brain function, and emotion regulation. Or maybe that stress is inherent in all of these factors. The text refers to both terms and it appears the terms can be replaced by each other. The text following this opening introduction states:

> 06*Conditions like anxiety and depression are the commonest forms of psychological*
> 07*health problems that we can suffer. The Royal College of Psychiatrists have estimated*
> 08*that 1:4 adults in the UK will develop anxiety and or* [sic] *depression at some point in*
> 09*their lives, and its* [sic] *been estimated that 3 million people in the UK suffer*
> 10*depression.* www.stresshelptripod.com (p. 15A3)

Rather than focusing on the relation between *"Stress and Depression"* as suggested in the title of this section (line 1), the text veers towards discussing *"conditions like anxiety and depression"* (line 6). The site appears to weave back and forth between focusing on depression exclusively (line 2), lumping depression and anxiety together (lines 6 and 8), and returning to focus on depression (line 10), even as the section is entitled *"Stress and Depression"* (line 1). This

shifting between these three terms is made seamlessly and unproblematically. It appears almost inconsequential whether the text refers to depression alone, anxiety alone, the two conditions together, or the role of stress in these conditions. This mixing of terms suggests a high degree of similarity between these conditions that belie their separate terminology.

Despite the title of this website being *Stress Help*, the specific concept of stress has not been fully explained yet. We see the first description of stress as a causative agent in the development of depression under the *"Brain and Depression"* heading, further along in the *"Stress and Depression"* section:

> 44*Research has also indicated that there are psychological factors involved in the*
> 45*development of depression such as excess anxiety and stress, which influence our brain*
> 46*chemistry and predisposes us to developing depression. One of the hormones that is*
> 47*secreted when we suffer chronic stress is called cortisol, and in excess levels, cortisol*
> 48*has been shown to inhibit the production of serotonin. However it's not that simple*
> 49*because not everyone who is chronically stressed will develop depression; but if you*
> 50*have a genetic predisposition to depression and then add chronic stress, then you are*
> 51*more at risk of developing depression.* www.stresshelp.tripod.com (p. 15A4)

In another interesting mix of terms, the causal factors linked to depression in this extract include *"excess anxiety and stress"* (line 45). Earlier, stress, anxiety, and depression were constructed as mental health conditions in their own right. Here, stress and anxiety are constructed as the causal agents in the development of depression. The movement of these terms freely from being constructed as conditions, to causal factors, demonstrates the fluidity in how these terms can be used. Stress is constructed here in strictly biological terms, as in excessive cortisol. The text acknowledges that the relation between stress and depression is *"not that simple"* (line 48), but it does not address other aspects of stress beyond the biological in its mention of *"genetic predisposition"* (line 50). The account works to establish scientific authority by referring to the *"research"* support for its assertions (line 44). The text reveals some uptake of neuroscience

findings by citing cortisol's inhibitory effect on serotonin (line 48), a putative link between how the stress system interacts with mood disorders. Reminiscences of biological constructions of depression and the putative role of serotonin to mood dysfunction is recalled by these similarly constructed versions of stress.

5.4.2.4 Shared Causes, Management, and Treatment. The website user is provided with an explanation for a similar psychological mechanism underlying the difficulties in stress, anxiety, and depression. Regardless of the disorder, faulty thinking is believed to underlie each one. The *Stress Group* website differentiates stress from other mental health conditions but still continues to suggest that the approaches to management and treatment would be similar regardless with which mental health issue the user is wanting to gain more assistance. Consider the following extract:

> 06*We have the answers to your mental health and happiness. Whether or not you realize*
> 07*it, you DO HAVE what it takes to deal with emotional turmoil stress, and such mental*
> 08*health issues as depression, anxiety, anger, and more. No matter your age, your*
> 09*education, your race, religion, occupation…you can learn how to better deal with*
> 10*difficulties in your life. Your reactions to life's situations depend on many things*
> 11*including genetics, your upbringing and surroundings, people who had influence on*
> 12*you when you were young, as well as brain chemistry. While a combination, or any*
> 13*single one of the above may result in emotional upset, there are ways to avoid upset- -*
> 14*even before it happens. Whether you're looking to deal with stress, manage anger, get*
> 15*help with depression, cope with anxiety, learn more about herbal supplements for all*
> 16*the above, and/ or find out more about counseling, Cognitive Behavioral Therapy*
> 17*(CBT), or Rational Emotive Behavior Therapy (REBT) then you're in the right place.*
> www.stressgroup.com (p. 14A1)

The extract uses the term *"emotional turmoil stress"* (line 7) as a general category of distress. It separates this general term from the more specific "*mental health issues* [such] *as depression, anxiety, anger, and more"* (lines 7-8). Presumably, the "emotional turmoil *stress*" is related to these mental health conditions as they are listed together, but it does not qualify as a specific mental health condition by itself. Regardless of this distinction, however, it appears that one can

deal with all these different states and conditions in a similar manner. The extract suggests that the website will have answers to addressing all these concerns: *"to deal with stress, manage anger, get help with depression, cope with anxiety"* (lines 14-15), and the user is reassured that he or she is *"in the right place"* (line 17). There is a switch to the second person in the second sentence, *"whether or not <u>you</u> realize it, <u>you</u> DO HAVE what it takes"* (lines 1-2) addressing the website user directly. The use of capitals adds emphasis here and almost provides the tone of a 'tough love' approach to those who believe they are unable to help themselves in gaining control over these conditions. This is an interesting perspective since it pits the abundant source of information available on the website, *"<u>We have</u> the answers"* (line 6), while simultaneously passing the ultimate responsibility to the users because *they "have what it takes"* (line 7) to help themselves. By including *"happiness"* (line 1) in the introductory sentence, website users are reeled in, only to be told that the 'secret' lies within themselves.

The inclusion of emotions in general, and *"anger"* (line 8) more specifically as a 'mental health issue', shows a broadening of what is considered the purview of clinical concern. In this extract, anger, is included alongside the other 'mental health conditions' of depression and anxiety. This inclusion demonstrates the fluidity of language as anger is an emotion, but can also be considered a mental health problem if someone has trouble regulating the emotion. This harkens to the ways in which depression has been described as everything from 'the blues' to a mood to a syndrome to a clinical illness. While difficulties in managing anger can lead to problems, to list the emotion as if it were synonymous with a mental health condition provides an example of the ever-increasing diffusion of what constitutes a mental health condition. *"Emotional turmoil"* (line 7) implies an even broader mass of undifferentiated feeling states which appear to capture distress in general. This highlights the issue raised by some researchers

questioning the boundary between what is considered a healthy emotion and a pathological state. It also reinforces the notion that emotions can be considered pathological, depending on context, reflecting the cultural and historical specificity of these terms.

The *Stress Group* website postulates that the source of distress, no matter what it is called, is caused by how one is thinking. This transactional view of stress privileges rationality and how one 'interprets' a situation. It also suggests that all distress can be handled in a similar fashion with success – a one size fits all approach that involves modifying thinking. This extract implies that there is no excuse for not learning how to manage stress as *"no matter your age, your education, your race, religion, occupation…you can learn how to better deal with difficulties in your life"* (lines 8-10). This text has implications then for those who do not know how to manage their stress or who may be made to feel that they have not held up their end of a moral and social contract to keep stress levels in balance. On the *"Stress Management"* section of the website, the text explains:

> 01*It's not what's happening to us, or what happened to us in the past that gives way to*
> 02*our stress, but instead* ***how we're thinking about what happened or what is***
> 03***happening****.* ***Overcoming stress*** *is actually easier than you think. Most often it just*
> 04*takes a little* ***re-training in your self-talk****."* [bold in original]
> www.stressgroup.com (p. 14A2).

This extract suggests the ease of the stress management process by using adverbs that minimize the amount of effort required, as *"most often it just takes a little"* (lines 3- 4) extra energy on the part of the website user to engender change. The text has the effect of simplifying the process of *"overcoming stress"* (line 3). The website advocates that many different conditions can be helped with the same combination of changing one's self-talk, reading self-help articles, going to counseling, or purchasing herbal supplements (with direct links advertised on the website). Interestingly, the supplements being advertised on the website are also not condition-specific, but

named for the symptoms they address or their intended effects (e.g., *Fatigue Fighter*, *Mind Soothe*, *Pure Calm*, and *Mood Tonic* advertised by Native Remedies). The advertisements for these herbal supplements also make bold promises to an audience that may be desperate to obtain help. For example, the *Fatigue Fighter* promises to *"boost energy levels, fight fatigue and bring life back into your system"* while *Anger Soothe* claims to *"temporarily reduce anger and irritability"* (www.stressgroup.com, p. 14A3). No mention is made in the advertising banner to explain what the active ingredients are or how they act upon the body.

By focusing on one putative mechanism for how people become upset (i.e., how they interpret situations), the various disorders can be collapsed into one larger category of distress. The text even goes so far as to suggest that it is possible to *"avoid upset – even before it happens"* (lines 11-12) as if this were a realistic and laudable goal. This view is consistent with the cultural discourse of stress as something that needs to be eradicated. The stress discourse on this website reinforces stress as a negative affective state triggered by faulty interpretive processes. This construction serves to substantiate the need to obtain ameliorative measures, such as seeking mental health treatment, purchasing self-help books, reading mental health material online, trying new herbal supplements, and changing one's thinking process.

5.5 Discussion

The six websites analyzed in this manuscript showed surprising similarities in how the stress and depression concepts were constructed. The stress discourse on these websites appeared to borrow from depression discourse in terms of: constructing stress as a mental illness, possessing a similar symptom profile to depression, sharing postulated causes, management, and treatment approaches with depression, showing parallel flexibility in how the terms were defined

and used within the websites, and finally, appearing at times to even be able to substitute for one another in the text. Both the 'stress' and 'depression' terms capture various experiences of distress, but do not appear as distinct or unique as has often been suggested within the mental health literature. The flexibility in how these two mental health terms are used on the websites contrasts sharply with the constant search for improved precision, demarcation, and operationalization aimed for within the fields of psychiatry and psychology. In this section, I argue that in the context of self-help websites, it might be more relevant to allow for flexibility in how these terms are used, particularly in fostering greater inclusivity and relevance to the potential users visiting the site. It allows the website to ensure that all the bases are covered in terms of mental health issues so that individuals are not excluded and can find themselves represented somewhere in the online material. Further, the stress and depression constructions on these websites demonstrate how malleably these concepts have been used in wider public discourse. The cultural versatility of these terms allow them to remain popular and persistent in public usage, prompting questions about the utility of searching for finer distinctions within psychology and psychiatry. I discuss the implication of these findings to the enterprise of diagnosis and classification within the mental health field.

5.5.1 Elasticity of Terms

The stress and depression terms on the six websites demonstrated an ability to expand or narrow, as needed, in a remarkable display of elasticity. Being able to leap from *stimulus* to *response*, from *mood swing* to *mental illness*, from *causal factor* to resulting *condition*, demonstrates the elasticity of 'stress' and 'depression' to capture a wide variety of experiences. Within the mental health field, however, these terms can be easily reified or concretized, leading them to be considered as indisputable and immutable 'facts'. As demonstrated in this

manuscript, the terms' usage and influence can vary quite dramatically through their construction in language. The website text analysis showed that the ways in which distress is talked about can fluctuate from being labelled 'anxiety', 'stress', 'depression', even 'anger' and 'emotional turmoil'. The specific *label* appeared not to matter so much as the ability to be able to call it *something* that website users would recognize.

Viewed from an objectivist epistemology, the malleable feature of the language of the websites is seen as problematic, loose, and less 'scientific'. It requires greater tightening of operational definitions. Within a post-positivist framework using experimental methods, researchers emphasize that both the 'stress' and 'depression' terms lack 'conceptual clarity' and evidence 'boundary confusion' which plagues the field in general (Brown, 1996; Horwitz, 2010; Horwitz & Wakefield, 2007; Monroe & Reid, 2009; Pohlman & Becker, 2006; Pollock, 1988). However, rather than seek to further refine the term, it is worthwhile to consider the qualities, characteristics, and functions of the terms' 'slipperiness' to understand its role in language, which is made possible from a social constructionist epistemology. From this vantage point, it is neither problematic nor messy that stress and depression can simultaneously be symptom, syndrome, condition, illness, mood, emotion, etc. This variability is seen as reflecting the constructed nature of these terms. The focus then shifts to understanding better how these terms are used, in what context, and for what purpose.

5.5.2 Legitimizing Daily Distress

Given the ubiquity of the stress concept, what allows it to remain such a mainstay in public discourse? 'Stress' appears to be a catch-all term that manages to capture the myriad ways one can express personal turmoil: through anger, fatigue, relationship difficulties,

addictions, etc. Stress becomes the repository for all the ways people inscribe ‘life’ bodily. There is no restriction in the forms of expression ‘stress’ can manifest. But within a rising ‘psychiatric discourse’ and ‘mental health culture’, even everyday expressions of distress are being queried for their level of normality and authors have commented on the rising prevalence rates of mental illness and the expansion of psychiatric labels to new areas of concern (Frances & Widiger, 2012). There are potentially empowering and constraining possibilities with the fluid construction of stress. For those who feel chronically overwhelmed, stress appears to be a valid way of talking about concerns without ‘losing face’. Stress and depression are some of the fastest rising mental health reasons for missing work and taking sick leave (Gilmour & Patten, 2007; Shields, 2006). However, researchers working within the area of occupational health describe that stress can also be fairly stigmatizing in the workplace. For example, in a discourse analytic study of clerical workers using focus groups, the participants described being fearful of acknowledging their stress because they did not want to be perceived or labelled as ‘weak’ and unable to cope (Harkness et al., 2005). The individualized discourse of stress tends to ignore other workplace issues such as task demands, hours worked, wages, hostile or dangerous environments, all in favor of situating the worker as the locus of the problem (Becker, 2010; Harkness et al., 2005). The discourses of responsibility and blame surrounding the stress concept overlap with the depression discourse in which the frequently medicalized construction of depression, which equates it with the status of other ‘medical’ illnesses, has been found to be on precarious footing without biological tests to confirm its presence (Lafrance, 2007). In addition, this comparison to other ‘physical’ illnesses fails to alleviate the stigma surrounding depression because of the lack of certainty with the diagnosis. Similarly, another discourse analytic study examined how participants frequently compared depression to other health

conditions such as Type 2 diabetes in their understanding of depression and its treatment (i.e., a 'medical' illness like any other, requiring medication) (McMullen & Sigurdson, 2013). The authors found that this comparison also inadvertently involved discourses of responsibility as Type 2 diabetes, unlike Type 1 diabetes, is often linked to lifestyle choices in the development of the illness (McMullen & Sigurdson, 2013).

It is possible that website users might be less bothered by the need for precision as they are with the need to feel understood, included, and recognized when they scan a website page for information relevant to themselves. These functions serve to make website users feel less alone, believe that they have come to the right place (i.e., to the website appropriate for their 'condition'), and to find readily available assistance for their problems. Perhaps, a less pathologizing stance would be to acknowledge how experiences of distress reflect the circumstances of people's lives – including experiences of grief, loss, pain, tragedy, or trauma. This type of approach would allow for a more nuanced understanding of people's experiences, rather than privileging symptomatic descriptions and psychiatric classification schemes. The websites overwhelmingly constructed stress in negative terms, promoting the view that no benefit is derived from this experience. Similarly, cultural discourses of depression view it as a negative affective state that should be eradicated (Horowitz & Wakefield, 2007), rather than celebrated (Wilson, 2008), or taken as a matter-of-fact occurrence in life (Obeyesekere, 1985). While this medicalized and pathologized construction of stress might help users feel their distress is more 'valid', it likewise has the possibility of contributing to shame and stigma if individuals feel unable to handle their stress, or unable to 'prove' their stress with a medical test, similar to depression. Understanding how the context of people's lives, along with their biology and interpretations/ appraisals, contribute to stress experiences has the potential to transform

how we respond to distress, perhaps sensitizing ourselves to discourses of blame that are perpetuated by current treatment approaches. These various discourses of blame, responsibility, individualism, stigmatization, and unclear fit within the biomedical frame makes ‘stress’ a problematic label to legitimately capture experiences of daily distress. Following the trajectory of depression, and raising the profile of stress to an ‘illness’ brings with it additional challenges.

5.5.3 Stress – the Latest Mental Illness?

Parallel to depression, a medicalized biological account of stress was used on the websites to elevate stress to a serious mental illness. Stress was framed in a pathologizing manner, with the need to monitor ‘symptoms,’ change ‘faulty thinking,’ and obtain ‘treatment’. By granting stress illness status and raising its profile as a significant mental health condition, the websites reinforce the need to take this new concern seriously. Listing it alongside the heavy-hitters of depression and anxiety, reels in those website users who might not have been formally diagnosed or self-diagnosed with a mental illness yet. It allows the depression discourse of causes, management, and treatment to be ‘borrowed’ for stress. This construction opens a larger pool of website users who might find the information, products, services, and opinions on the websites of possible relevance to them. The commercial implications of this enterprise are evident as adding stress to the list of other mental illnesses opens a larger potential market of consumers (Becker, 2010). For those sites with little to no declared commercial interests, being more inclusive toward the pool of potential website users helps boost traffic, visibility, and popularity of the websites. This medicalized discourse of stress overlaps with the depression discourse, including inviting similar debates about the depth and breadth of the ‘stress problem’ and its presumed ‘causes’. On the one hand, constructing stress as a significant mental health concern validates the need for stress-based interventions. These types of interventions (e.g.,

stress management, mindfulness-based stress reduction, etc.) have been widely implemented in settings as diverse as workplace offices, hospitals, and community clinics, and documented to have positive benefit (Sundquist et al., 2015). On the other hand, constructing stress as an illness might even raise the possibility of benefitting from antidepressants or antianxiety medication or other pharmacological interventions, as stress, anxiety and depression are frequently described as co-occurring. Constructing stress in a parallel fashion suggests that one might be likely to find the same benefits from pharmacotherapy as the symptoms, phenomenology, and etiologies of stress and depression, as described on the websites, are the same. However, this research raised the possibility that it is not necessarily co-occurrence, but overlapping discourses, that can account for the high degree of similarity in stress and depression.

5.5.4 Inviting Alternate Discourses to Describe Distress

Critically examining the language of mental health requires that we adopt a questioning stance to our taken-for-granted understandings of the terms we use in daily practice, whether in a research or clinical setting. As Sapouna (2012) states:

> Challenging mental health practice can be unsettling as it may require one's positions of certainty to be reviewed and possibly relinquished. But the transformative potential of this space can also encourage professionals to recognize that there are many truths, to shift from a position of certainty and to strive to understand the Other. Through these exchanges, there is an opportunity to tell stories, to make sense of experiences and to reconstruct meanings, particularly previously silenced meanings. (p. 616)

This research highlights the importance of how knowledge about mental health terms such as 'stress' and 'depression' is constructed. The website authors of *Stress Help*, *Undoing Depression*, *Conquering Stress*, and *Help Guide*, in particular, acknowledge having personal experiences with the mental illnesses they discuss online. If they use these terms flexibly in an attempt to reach out to other website users, the question becomes: does it matter how precisely

these conditions are talked about? We are asked to consider 'in what ways does our language enliven or constrain, promote or silence, empower or dishearten?' Brinkmann (2014) examines various 'languages of suffering' to determine whether we can provide discourses about distress in addition to the "diagnostic language" of mental health disciplines which assumes boundaries between 'the normal and the sick' and presupposes the existence of discrete mental illnesses. He argues instead for the consideration of other discourses that might allow people to communicate about suffering and distress. These alternative discourses include religious, existential, moral, and political languages that emphasize multiple ways to understand distress (Brinkmann, 2014). For example, he cites the potential of religion to "render pain and suffering meaningful…a way of seeing oneself within a larger horizon of meaning" (Brinkmann, 2014, p. 9). Existential language is seen as framing human problems as inevitable and unavoidable aspects of life. Moral language questions how normativity is constructed in the first place, in terms of people knowing what they 'ought' to do (Brinkmann, 2014, p. 11). Finally, political language involves the struggle to have certain rights met and examines the effects of social injustices (e.g., marginalization, discrimination, poverty, unemployment etc.) in experiences of suffering. Here, failing to consider these factors essentially "de-politicizes" the circumstances contributing to the suffering. In this way, people are held responsible for factors beyond their ability to control, and interventions focused on the individual fail to alleviate their suffering (Brinkmann, 2014, p. 15).

Because of the dominance of a diagnostic discourse, people have come to see themselves using this particular explanatory discourse as suffering from a 'condition'. The language of mental health perpetuates this construction in both the research and clinical realms of practice. The focus on empirical research of clinical 'disorders' in the mental health disciplines supports the construction of diagnostic categories in ensuring specific diagnostic groups are targeted for

study. Likewise, although there are transdiagnostic clinical principles that can be applied across different clinical presentations, there has also been a rise in manualized treatment and increasingly specific treatment protocols for specific diagnostic categories. Continuing with this 'narrowed' approach might prove difficult in resolving some of the conceptual issues about stress and depression raised in the vast research literature on these two terms. It might be prudent to shift attention "not only to putative biological signals, but also to the semantic envelopes constituting the objects of inquiry" (Markova & Berrios, 2012). At the least, it might be beneficial to shift the 'lens' we use to view mental disorders. Authors have emphasized the need to span discrete literatures to form interdisciplinary understandings of these terms from different vantage points offered by anthropology, psychiatry, and psychology, to name a few (Kleinman & Good, 1985). This interdisciplinary collaboration allows researchers to incorporate understandings from culture, neurobiology and psychopharmacology, and the clinical expression of mental distress using scientific, ethnographic, and clinical approaches from different epistemological frameworks to explore how and why 'depression' and 'stress' remain such important health constructs throughout time (Kleinman & Good, 1985).

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Chapter 6: General Discussion

The research questions posed in this project began by querying how the relation between stress and depression is constructed in the public discourse of self-help websites. In manuscript 1, the analysis demonstrated that multiple relations for the stress-depression relation were constructed online. The taken-for-granted notion of stress as an etiological factor in the development of depression quickly unravels when closer attention is paid to the numerous ways the relation can be constructed. The different possible relations between stress and depression include: a direct causal relation, no relation at all, related only in certain high risk people, too complex to understand, personalized and highly unique, or present only with the correct combination of risk factors. This variability opens up the stress-depression relation to represent whatever circumstances website users seek.

Given these myriad stress-depression relations, in manuscript 2, I focused on exploring how the stress and depression terms themselves were constructed online. This analysis demonstrated that the two terms appeared to substantially overlap in how they were constructed. For example, at times, both terms were constructed as major mental illnesses with similar symptoms, causes, and approaches to management/ treatment. The terms also demonstrated parallel flexibility in how they were defined and used, even being able to substitute for each other in the website text. Consequently, the stress and depression terms did not appear as separate and distinct online, as they are often represented within the mental health literature. I outlined earlier potential reasons for the language inclusivity on the websites, including attempting to be more faithful to the conflicting research literature, establishing the website as a source of 'fair' information in which opposing viewpoints are presented, or capturing the attention and identification of a wide readership. It would appear that the latter presents the most

likely function as the analyses from both manuscripts highlighted how the website text captured the widest diversity of responses about stress and depression.

6.1 Contrasting How Context Influences Mental Health Language Use

6.1.1 Establishing maximal relevance in the online context. In both manuscripts, the websites that were examined used general and broad information about stress and depression to ensure that users visiting the sites might find their personal experiences described in the text. This looseness of language served an important function in the online context in allowing the maximum number of users to find themselves represented online – a crucial first step in securing an audience for the information, products, and services endorsed by the website. To this end, ensuring that the language of the website is inclusive and maximally relevant to website users becomes of prime importance. Being overly specific and precise in this context might alienate or exclude potential users who believe that the website does not represent their particular set of circumstances or interests. Thompson (2012), draws on the work of Fairclough (1989), in borrowing the concept of "synthetic personalization" to describe the online environment. Synthetic personalization is believed to be operating "when a message is contrived for a mass audience so individuals feel as though they are being spoken to personally" (Thompson, 2012, p. 397). In the current research, talking about stress and depression to a potentially large audience of website users requires website producers to include as much variation in their constructions of these terms as possible to capture the "unique" experiences of their users. To the extent that website producers can produce a personally relevant experience for users, they ensure a more successful online presence. While the language variability used online serves the interests of website producers who benefit from having a larger audience base, it also appeals to website users who have multiple ways of describing and labelling their distress.

The flexible discourse of stress found online maps onto wider public discourses of stress as described earlier in the literature review. Authors have highlighted the non-specificity of the stress concept, and its utility in expressing distress while avoiding overt expressions that are seen as more pathological (Kinman & Jones, 2002). As demonstrated in manuscript 2, however, this cultural function may be on shaky ground as stress increasingly borrows from depression discourses and becomes constructed as an illness in its own right. The more that stress becomes pathologized as a mental health condition, the more difficult it becomes to do “stress talk” without fear of being labeled weak (Harkness et al., 2005).

6.1.2 Establishing increased precision in the mental health disciplines. The lumping together of various mental health terms demonstrated in the text of the self-help website flies in the face of what is typically being attempted in clinical and research practice within the fields of psychiatry and psychology. In the mental health disciplines, elucidating the distinctions that make disorders stand-alone entities becomes very important for diagnostic, classification, and treatment practices. Yet, these disorders have long been charged by various authors as having blurry boundaries, resulting in heated debates about the utility and arbitrariness of the diagnostic enterprise which fails to “carve nature at its joints” (Goldberg, 2000; Wakefield, 1992; Parker & Paterson, 2015). The differences in language use in the online and mental health contexts highlighted in this research demonstrate the situated nature of language, which can often be hard to ‘see’ steeped from within a particular context. The psy-disciplines represent no less a context than the online environment, and it is necessary for the reflexive researcher and clinician to consider the effects of the constructed nature of the terms we take for granted in daily use. How do our current ways of viewing experiences of distress prevent other ways of knowing or seeing the world? Authors have vociferously opposed what is seen as the medicalization of everyday

life (Rose, 2007; Wakefield, 2010) and caution against 'psychiatric universalism' which removes distress from the contexts that give rise to them and recasts them as 'disorders' (Summerfield, 2012). This has led to questions about the rising prevalence rates of mental illness and the growth of diagnostic categories (Frances & Widiger, 2012; Horwitz & Wakefield, 2007). Frances and Widiger (2012) highlight some of the conceptual difficulties in constructing a diagnostic manual including: an elusive definition of mental disorder, limits of neuroscience to explain complex behaviour, limits of descriptive psychiatry, an unclear epistemology, absence of a unified theoretical model, pragmatism, and fads (pp. 110-111). While knowledge of the brain and neurochemistry continue to increase, current classification schemes still have not clarified causes of psychopathology, nor have they been successful in identifying discrete, non-overlapping mental disorders (Frances & Widiger, 2012). Yet, diagnosis is still of prime importance in determining who gets treated, how they are treated, whether treatment will be paid for, whether individuals will be able to work, and whether they should be committed against their will, to name a few (Frances & Widiger, 2012). Given these reasons, it becomes even more important to cast a critical, reflexive eye on the entire enterprise to not lose sight of what is at stake.

The current research is not suggesting that the process of diagnostic classification and the search for ongoing precision in research is not important or valuable. It does, however, suggest the need to appreciate that our 'professional' understandings in psychology and psychiatry are another cultural construction with social implications. Professional discourse has the ability to apply labels to people and inform them of what they 'need' to do in order to get better. Authors have documented the subtle, and the not-so-subtle ways, that our 'diagnoses' and 'treatments' potentially position people as weak, damaged, taking a victim stance, and having a deficit

identity (Choudhury & Kirmayer, 2009; Hurt, 2007; Kirmayer, 2007; Lafrance, 2007; Marks, Murray, Evans & Estacio, 2015). Mental health professionals who practice ongoing reflexivity sensitize themselves to how the words they use have social force and performative implications. It is a reminder to pay attention to the centrality of language in the mental health enterprise.

6.2 The Complexity of Capturing Distress

An argument can be made that we need culturally appropriate ways of talking about everyday distress that is not overly medicalized and pathologized. Stress has provided this important cultural function, but is increasingly being pulled, via research and clinical practice, to 'disorder' status. Stress has been seen as a less stigmatized condition in that talk of stress is commonplace, and is seen as an unavoidable and inevitable part of life (Donnelly & Long, 2003). However, if stress continues to borrow from depression discourse, as has been demonstrated in this research, in its construction as an 'illness' with resulting 'symptoms' that require 'treatment', even everyday concerns will receive a medicalized gaze (Rose, 2007). If depression is a problematized condition and can be difficult to validate, how much more difficult will stress be to identify with its ability to assume any symptomatic expression possible? Stress sufferers might feel a greater need to substantiate their distress, possibly leading to greater symptoms and disability.

6.2.1 Cultural persistence of the stress concept. Researchers have suggested that the dominance of the stress discourse within health care is achieved because the ambiguity inherent in the concept provides health professionals with a ready-made explanation when biomedical knowledge is unable to explain causation or failures in treatment (Mulhall, 1996; Newton, 1995; Pollock, 1988; Donnelly & Long, 2003). It becomes a waste basket catch-all term to explain

why someone develops an illness, has a relapse, or is not responding to treatment. If this reason is to be believed, it becomes even more egregious, then, to locate blame within the individual for being unable to 'manage' his/ her health. Mulhall (1996) cites one self-help book that states "Stress can be fantastic. Or it can be fatal. It's all up to you" (Hanson, 1988, p. 2). This stance effectively abdicates all responsibility on the part of health professionals, and places blame squarely on the sufferer. This individualizing blaming discourse was also found in the self-help websites examined in this research. It begs the question why we cannot simply admit the limits of professional knowledge in understanding the complex conditions that give rise to illness manifestations. Young (1980) documents how the existing stress discourse legitimates existing social arrangements as people are desocialized from their environment and real conditions of existence, and subjected to 'individualized' treatment that provides little relief for the sufferer.

6.2.2 Fueling an epidemic. Constructing stress as an illness fuels the huge development of the commodification of stress (Becker, 2010) in response to the 'stress epidemic' (Mulhall, 1996). Everywhere people are exhorted to keep an eye on their stress level so that it does not rage out of control and wreak havoc on their immune systems. Recently, the March 2015 issue of the Popular Science magazine included a feature entitled "The Science of Stress: Everyone's Got It. Here's How It Works – And How to Beat It" (Borel, 2015). Short, sound-byte solutions are offered to help control the stress response: bounce back (via stress inoculation training), say om (mindful meditation, breathing exercises), get moving, pop a pill (via antidepressants and antianxiety medications), socialize, and walk away (Borel, 2015, p. 46). While research supports the value of some of these activities, nowhere is it suggested to consider why there is an epidemic in the first place. Becker (2010) states: "These tensions are often referred to as 'work-family conflict'. But family and work are not actually engaged in a battle. It is the stress

discourse that centers the conflict in the person of the juggler/ balancer rather than on the social context in which that conflict occurs" (Becker, 2010, p. 42). Examining how contextual factors such as social inequality, violence, poverty, unemployment, gender relations, discrimination, geographical displacement, unrealistic work demands, child care shortages, etc., contribute to rising distress levels presents a much tougher problem to solve than asking people to take time-outs, go to a spa, or have a vacation. Given that for some individuals even these solutions are beyond the realm of possibility further underscore the need to attribute blame somewhere. The belief that we all bear sole responsibility for our health might present a talisman to comfort us in the notion that we are doing everything to take care of ourselves, and thus, preventing the inevitable. When illness arises, even despite our best efforts at maintaining health, there is difficulty accepting the situation. Becker (2010) cited Crawford's (1980) term of *healthism* (preoccupation with health as a primary definition of well-being) as having "its own brand of insistent moralism…to choose a lifestyle that 'allows' illness is to be in violation of an important social contract" (p. 38). If the conditions that engender stress are too difficult to change, it appears not to serve anyone's best interests in recasting the blame upon the people who feel the strain of life. Another (possibly more humane) option is to consider using other discourses that challenge the individualizing, blaming, shaming, and pathologizing discourses of stress and depression.

6.3 Implications for Therapeutic Discourse

What may be of particular interest to researchers in clinical psychology is how to use (or recruit) discourses about stress and depression in ways that help enliven and open discussions with clients about everyday distress, rather than reduce, reproduce, or reinforce existing constructions that contribute to shame, stigma, and rejection. Do the different ways people

express distress always need to be the signs and symptoms of a mental health condition (Cromby, Harper, & Reavy, 2013)? In clinical psychology, an awareness and understanding of how language is used to construct experiences for ourselves, and for clients, is an important aspect of clinical practice. How do we define familiar mental health concepts that have come to be taken-for-granted? What are the implications for individuals who are defined by the terms we use? If the stress and depression terms are indeed interchangeable in public discourse, it may be less meaningful for practitioners to 'impose' particular understandings of these terms. The therapeutic exchanges may be more impactful and relevant to clients to use terms in ways that fit their own explanatory frameworks. While therapy has been described as a 'co-construction,' in which meaning is constantly renegotiated in ongoing dialogue (Gergen, 2009), being sensitive to the language that clients bring into therapy to describe their experience is important to facilitating understanding, empathy, and engagement. Privileging the words that clients themselves use, and how they construct important mental health terms, can help set the stage for exploration of significant meaning frameworks. Georgaca (2014) argued that examining discourses in mental health was not meant to undermine or devalue human suffering, but rather to alert ourselves to more useful and empowering ways of understanding and talking about distress. Brinkmann (2014) suggested rather than pathologizing some action in the light of a causal explanation, it is worth exploring the specifics of the situation that "render the action meaningful" (p. 12), moving from a focus on *causation* to *meaning*. Severson (2012) suggested going even further, beyond hermeneutics, to an approach that acknowledges the limitations of language in responding to the suffering of another. He borrowed the philosophy of Emmanuel Levinas to suggest how language in psychotherapy needs to attend to the *Saying* in the *Said*. This approach suggested adopting the positioning of engaging in prayer by leaning "emotionally

and psychologically into the unknown. Such a movement and posture does not necessitate words, though we see in the phenomenon of language a most obvious inadequacy" (Severson, 2012, p. 257). He argued that if we focus exclusively on language, much is lost in responding to the suffering of the other. The current research has brought some attention to the complexities, variation, risks, and inadequacies of language. Despite these challenges, language has enormous influence in how we communicate and understand our social life. Appreciating its qualities allows us to respond with humility and awe at its power.

6.4 Limitations of Current Research

This research examined a small subset of the numerous websites available online regarding mental health topics. I do not purport to make claims about the larger class of mental health self-help websites in general, as my analysis is limited to the twelve I reviewed in closer detail. These conclusions are not meant to make truth claims about online self-help, or even of the total uses of the terms 'stress' and 'depression'. The interpretations are limited to the specific website texts included here to provide a basis for the analytic claims made. To provide the depth of analysis required to answer my research questions, this necessitated limiting my sample of textual material to a manageable size for a research project of this magnitude. Future researchers might want to situate the findings discussed here with other websites for comparison or generalizability purposes. Such an approach would require different methods and statistical analytic approaches. The epistemological framework used to situate the analysis offered *one* of the *many* interpretations that are possible.

Researchers more familiar with quantitative approaches to data analysis may question the supposed 'subjectivity' of having a single author analyze the text, querying 'reliability' or 'bias'.

A return to explaining researcher positioning is warranted. The analyses presented in this dissertation are filtered through my analytic perspective. However, this research highlights that all knowledge is filtered through some analytical frame, whether it is explicitly stated or not. Viewed from a social constructionist paradigm, the interpretation offered here is another construction, or version of events. It is no more 'right or wrong' than any other possible construction that exists. I acknowledge the 'co-construction' involved in my reading of the textual material as it is undoubtedly filtered through the conceptual frameworks, experiences, and knowledge I bring to them. Hence, my inclusion of the text where possible to assist the reader in understanding how my particular interpretation was reached. This is not to imply that another researcher reading the same text would have come to the same analytic conclusions. The textual material is included to demonstrate how I arrived at my conclusions, again, with the understanding that if I were to return to the same text at another point in time, different analytic conclusions might be drawn. Within the social constructionist framework, each construction is seen as 'occasioned' in that social, historical, political, personal, etc., factors undoubtedly change with time and are never perfectly replicated.

The Internet can be a challenging context in which to conduct research as material and technology continually evolve. While these online searches began six years ago, some websites have remained, and at least one has disappeared highlighting the transitory nature of the information. Website information has been updated, changed, or deleted entirely. Online health information seekers might visit a site only once and quickly determine whether it will offer them the information they are looking for. This highlights the necessity of examining what is offered, even if its time and presence online is brief. While it is beyond the scope of this research to delve into the technological and sociologically relevant aspects of the Internet, a case has been

made for how the Internet holds immense potential in our understandings of ourselves and of the mental health concepts clinical psychologists use in daily practice.

I did not review other visual or interactive elements of websites which are significant features of the Internet context. This choice was made partly because my interest in this dissertation was to examine language use more specifically, and the website text in particular. Consequently, I limited my analysis to the language feature of the websites. Likewise, the choice to exclude visual images, layout, interactivity elements, etc., was made as these elements went beyond the scope of the research questions posed and my knowledge as a clinical psychologist of technical features of the Internet. However, numerous studies highlight these various features of the Internet as influencing how one navigates and uses this medium (Gawley, 2007; McMillan, 1999; Thompson, 2012). Given the complexity of the online context, interdisciplinary studies might provide additional ways to bridge the expertise gaps that would enable understanding of how technical, sociological, economic, and psychological features marry to provide particular online experiences for users with regard to their health.

6.5 Areas for Future Research Investigation

Research can add to our understanding of the relation of stress and depression by examining how individuals use these labels to describe themselves, and their understanding of how these 'conditions' developed. In particular, examining how particular contexts (e.g., online chat rooms, patients presenting to primary care with suspected depression, workers on 'stress leave,' etc.) influence these constructions would be interesting to explore. Likewise, while the current research examined what type of information might be available to website users if they conducted an online search about stress and depression, examining how these online searches influence or

translate into specific decisions that individuals might make about their health (i.e., visiting a doctor, ordering a herbal supplement, joining an online support group, trying online counseling, etc.) would add to our knowledge about how online experiences contribute to other online/ offline health behaviours. Speaking to users themselves about how they use the health information they find online would also add knowledge about how online constructions are received. Likewise, attuning to how quickly online technology develops and changes is important to keep in mind in future studies. In the case of Google, understanding how the development of enhanced personalized search results contribute to the type of information users are delivered in response to their search queries would be a technological enhancement to investigate further. As well, the growth in the use of various social networking sites presents another opportunity for researchers to explore how public understandings of mental health constructs are shared in online spaces. To this end, engaging in research from different epistemological vantage points will allow different research questions to be asked and answered. Resolving the issues and challenges in conducting online investigations of important mental health constructs may involve approaching this type of research from different perspectives entirely. The current research aimed to take a step in this direction by attempting to bring 'new eyes' to the taken-for-granted stress and depression discourses in order to highlight their constructed nature and variation depending on context.

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APPENDIX A: List of the Top Ten Websites Returned as a Result of Specific Search Terms

Search Number/Date	Search Terms	Top 10 Sites Returned
Search #1 July 8, 2009	stress, depression, self-help	1. www.helpguide.org/mental/depression_tips.htm 2. www.helpguide.org/ 3. www.conqueringstress.com/depression_self_help.html 4. www.stressgroup.com/ 5. www.myselfhelp.com/ 6. www.hcvadvocate.org/hepatitis/factsheets...?MH_Dep_Selfhelp.pdf 7. www.have-a-heart.com/self-help-iv.html 8. www.breath2000.org 9. www.soulselfhelp.on.ca/depressionarticle.html 10. www.depressionperception.com
Search #2 July 22, 2009	stress, depression	1. www.stress-anxiety-depression.org/ 2. www.allaboutdepression.com/gen_05.html 3. www.eurekalert.org/pub_release/2009.../uab-sad071609.php 4. www.teachhealth.com 5. www.timescolonist.com/...Stress...depression.../story.html 6. www.conqueringstress.com/ 7. www.sciencedaily.com/releases/2009/02/090225175850.htm 8. www.depression-help-for-you.com/stress-and-depression.html 9. www.grad.ubc.ca/gradpd/gameplan/stressdepression.html 10. www.nimh.nih.gov/health/.../depression./complete-index.shtml
Search #3 July 22, 2009	managing, stress, depression	1. www.conqueringstress.com/ 2. www.depression-help-for-you.com/stress-and-depression.html 3. www.mayoclinic.com/health/stress/AN01286 4. www.spine-health.com/.../depression/managing-stress-depression-and-chronic-back-pain 5. www.cmhc.utexas.edu/ 6. www.squidoo.com/sadd 7. www.studentdepression.org/managing_stress_levels.php 8. www.stresscenter.com/ 9. www.metrohealth.org/.../stress%20depression%20and%20heart%20disease.ppt 10. www.teachhealth.com

Search Number/Date	Search Terms	Top 10 Sites Returned
Search #4 July 22, 2009	help, stress, depression	1. www.stressgroup.com/ 2. www.stresshelp.tripod.com/ 3. www.conqueringstress.com/ 4. https://intranet.londonmet.ac.uk/.../anxiety-depression-and-stress.cfm 5. www.teachhealth.com/ 6. www.helpguide.org/mental/depression_tips.htm 7. www.nimh.nih.gov/health/.../depression/complete-index.shtml 8. www.mayoclinic.com/health/stress/MH00030 9. www.mombu.com/.../t-please-help-me-long-post-stress-depression-job-silver-jaw-2765471.html 10. www.healthcentral.com/depression/news-293770-98.html
Search #5 October 14, 2009	manage, stress	1. www.studygs.net/stress.htm 2. www.mindtools.com/smpage.html 3. www.helpguide.org/.../stress_management_relief_coping.htm 4. www.helpguide.org/.../eq2_managing_stress_relationships.htm 5. www.healthfinder.gov/prevention/ViewTopic.aspx?topicID... 6. www.geniusbeauty.com/woman-health/tips-how-to-manage-stress/ 7. www.stress.about.com/ 8. www.nlm.nih.gov/medlineplus/...managingstress/.../index.htm 9. www.nlm.nih.gov/medlineplus/stress.html 10. www.managestressnow.com/
Search #6 October 14, 2009	managing, stress, depression	1. www.stress-anxiety-depression.org/ 2. www.conqueringstress.com/ 3. www.allaboutdepression.com/gen_05.html 4. www.depression-help-for-you.com/stress-and-depression.html 5. www.mayoclinic.com/health/stress/AN01286 6. www.spine-health.com/.../depression/managing-stress-depression-and-chronic-back-pain 7. www.growthcentral.com/ 8. www.mind.org.uk/help/information_and_advice 9. www.cmhc.utexas.edu/ 10. www.studentdepression.org/managing_stress_levels.php

Search Number/Date	Search Terms	Top 10 Sites Returned
Search #7 May 11, 2010	stress, depression	1. www.allaboutdepression.com/gen_05.html 2. www.stress-anxiety-depression.org/ 3. www.depression-help-for-you.com/stress-and-depression.html 4. www.grad.ubc.ca>...>Graduate_Game_Plan 5. www.mayoclinic.com/health/stress/AN01286 6. www.robarts.ca/scientists-find-first-biological-link-between-stress-anxiety-and-depression-w-video 7. www.gregdorter.com/ 8. www.chealth.canoe.ca>Depression 9. www.lpac.ca/Main/articles_bibs/stress_bib.aspx 10. www.books.google.ca/books?isbn=0805834400
Search #8 May 11, 2010	manage, stress	1. www.helpguide.org/...stress_management_relief_coping.htm 2. www.helpguide.org/.../eq2_managing_stress_relationships.htm 3. www.studygs.net/stress.htm 4. www.mindtools.com/smpage.html 5. www.medicinet.com>...>mental_health_az_list 6. www.geniusbeauty.com/.../tips-how-to-manage-stress/ 7. www.ehealthmd.com/library/stress/str_whatis.html 8. www.brookes.ac.uk/student/services/health/stress.html 9. www.hr.ubc.ca/files/pdf/benefits/August_Health_Promotion.pdf 10. www.aboutstressmanagement.com/
Search #9 May 22, 2010	manage, stress	1. www.medicinet.com>...>mental_health_az_list 2. www.helpguide.org/...stress_management_relief_coping.htm 3. www.helpguide.org/.../eq2_managing_stress_relationships.htm 4. www.studygs.net/stress.htm 5. www.mindtools.com/smpage.html 6. www.nlm.nih.gov/medlineplus/stress.html 7. www.geniusbeauty.com/.../tips-how-to-manage-stress/ 8. www.ehealthmd.com/library/stress/str_whatis.html 9. www.brookes.ac.uk/student/services/health/stress.html 10. www.aboutstressmanagement.com/

Search Number/Date	Search Terms	Top 10 Sites Returned
Search #10 May 22, 2010	managing, stress, depression	1. www.stress-anxiety-depression.org/ 2. www.teachtechnology.co.uk/tt/t-articl/stress.htm 3. www.allaboutdepression.com/gen_05.html 4. www.conqueringstress.com/ 5. www.depression-help-for-you.com/stress-and-depression.html 6. www.helpguide.org/mental/stress_signs.htm 7. www.squidoo.com/sadd 8. www.depression.about.com/cs/stress/a/psychosomatic.htm 9. www.outofstress.com/ 10. www.mayoclinic.com/health/stress/AN01286
Search #11 October 1, 2010	stress, depression, self-help	1. www.helpguide.org/mental/depression_tips.htm 2. www.conqueringstress.com/depression_self_help.html 3. www.stressgroup.com/ 4. www.stresshelp.tripod.com/ 5. www.breath2000.org/ 6. www.depression.about.com/od/copingskills/Coping_Skills.htm 7. www.releasetechnique.com/ 8. www.undoingdepression.com/ 9. www.whatstress.com/ 10. www.mental-health-matters.com/
Search #12 October 15, 2010	depression, stress, self-help	1. www.helpguide.org/mental/depression_tips.htm 2. www.conqueringstress.com/depression_self_help.html 3. www.breath2000.org/ 4. www.stressgroup.com/ 5. www.releasetechnique.com/ 6. www.mood-shifting.com/ 7. www.stresshelp.tripod.com/ 8. www.depression.about.com/od/copingskills/Coping_Skills.htm 9. www.undoingdepression.com/ 10. www.allaboutdepression.com/gen_05.html

Search Number/Date	Search Terms	Top 10 Sites Returned
Search #13 November 5, 2010	stress, depression	1. www.allaboutdepression.com/gen_05.html 2. www.stress-anxiety-depression.org/ 3. www.depression-help-for-you.com/stress-and-depression.html 4. www.mayoclinic.com/health/stress/AN01286 5. www.grad.ubc.ca>...>Graduate_Game_Plan 6. www.vancouversun.com/health/...stress+depression/...?story.html 7. www.robarts.ca/scientists-find-first-biological-link-between-stress-anxiety-and-depression-w-video 8. www.statcan.gc.ca/ads-annonces/82-003-x/pdf/4194128-eng.pdf 9. www.depression.about.com/cs/stress/a/psychosomatic.htm 10. www.thestar.com/.../839449-stress-and-depression-can-cause-dog-aggression
Search #14 November 29, 2010	stress, depression, help	1. www.stressgroup.com/ 2. www.stress-anxiety-depression.org/ 3. www.helpguide.org/mental/depression_tips.htm 4. www.depression-help-for-you.com/stress-and-depression.html 5. www.stresshelp.tripod.com/ 6. www.conqueringstress.com/depression_self_help.html 7. www.depression.about.com/cs/stress/ht/Stress.htm 8. www.lawyerswellbeing.com/ 9. www.nimh.nih.gov>Health&Outreach>Publications 10. www.fi.edu/learn/brain/relieve.html