

2007

Psychological stress and lower-back injuries in mental health professionals : an experiential exploration

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Lethbridge, Alta. : University of Lethbridge, Faculty of Education, 2007

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**PSYCHOLOGICAL STRESS AND LOWER-BACK
INJURIES IN MENTAL HEALTH PROFESSIONALS: AN
EXPERIENTIAL EXPLORATION**

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A Project
Submitted to the School of Graduate Studies
of the University of Lethbridge
in Partial Fulfillment of the
Requirements for the Degree

**MASTER OF EDUCATION
(COUNSELLING PSYCHOLOGY)**

**FACULTY OF EDUCATION
LETHBRIDGE, ALBERTA**

April 2007

This work is dedicated in
loving memory of my parents,
Ernest and Mary Sarnecki, who
passed away in 2004.

Abstract

Psychological stress, lower back injuries (LBI), and lower back pain (LBP) are prevalent problems in society today. Research on the psychological factors involved stress and lower back injuries has been diverse. The proposed project will endeavour to answer to following questions: Do mental health professionals experience symptoms of depression, anxiety, stress, or lower-back injuries? What etiological work or non work-related factors do these individuals believe contribute to and/or detract from their difficulties? What interventions do these individuals utilize to alleviate their symptoms of depression, anxiety, stress, and/or lower-back injuries? These questions were addressed via the use of a semi-structured interview adapted from a formal psychological assessment scale (The Depression Anxiety Stress Scale 42 or DASS 42). The interview results will be reported in a case-by-case format and general thematic format. This project will conclude with a review of the author's recommendations for further research, as well as a brief examination of his personal learning statement.

Acknowledgements

I wish to thank my girlfriend, Mandy, for her patience, support, and understanding as I pursued my graduate training. I would also like to thank Mandy for her ardent passion in encouraging my pursuit of graduate training.

I would also like to thank my sister, Darcia, and brother-in-law Dwayne, for their many forms of support during my Masters program.

I wish to thank my colleagues at work for their assistance and encouragement during my Masters program. I would also like to thank my practicum supervisors, Tim Starko and Willard Fewer, for taking the time and effort to shape my development as a counsellor and future psychologist.

Finally, I would like to thank my project supervisor, Richard Butt. Your patience, understanding, wisdom, and guidance were greatly appreciated during this entire graduate level experience.

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Introduction

The areas of stress, lower back injuries (LBI's), and lower back pain (LBP) have remained relatively separate research domains over the last 30 years. However, the recent advent of interdisciplinary studies has ended this segregated process, in favour of a more holistic approach to the research and treatment of traditionally 'medical' or 'psychological' disorders (Marchioli, Alvaro, Koke, Hrudehy, Lobalsamo, & Tupper, 1987). Within this co-operative multidisciplinary framework this research project will explore the possible links between the areas of stress and LBI/LBP. The author's personal experiences with stress and LBI/LBP will be introduced as the powerful catalyst that initiated his interest in this topic. This project will also be justified in terms of a brief description of the quality of life for individuals afflicted stress, acute or chronic back injury, or chronic lower back pain (LBP). Justification of the project research will also be presented in terms of the identification of issues that have not been adequately addressed through prior research, as well as a review of research directed at psychological factors associated with lower back injuries, such as stress. The author will also endeavour to characterize this project as an initial pilot attempt to bridge a small gap in current research. A review of the basic definitions of stress and lower back injuries, as well as relevant research finding in these areas, will be presented. The procedures that were implemented in this investigation will be reviewed and examined in terms of their purpose in this project. Theoretical problems and ethical concerns with this endeavour will also be discussed, as well as several probable solutions to these issues. In conclusion, the results of the author's semi-structured interviews will be reviewed in the form of six

brief case vignettes and a thematic summary of the interviewee's responses. The aforementioned themes will attempt to answer this project's fundamental research questions, while also suggesting future avenues of exploration in stress and LBI/LBP research and the resolution of this author's personal learning plan for the future.

A Personal Motivator

This author has suffered from a reoccurring LBI and chronic LBP for the last eleven years. I was 20-years-old when I experienced my first muscular lumbar strain and three bulging lumbar discs, during my third year of undergraduate work at the University of Alberta. At this time period of my life I believe I was fairly physically fit and active; in addition to full-time studies I participated in power-lifting at the gym twice a day, four days a week, and worked three to four days a week as an order picker in a grocery warehouse position. During the month immediately following my injury I was almost completely bedridden, but I was not prescribed painkillers or anti-inflammatory medications by my doctor. Luckily, I was eligible to receive worker's compensation benefits, as the injury occurred at work. I also received physiotherapy treatments from a sports medicine clinic at the University, two to three times per week.

Unfortunately, after three months of physiotherapy my compensation benefits were terminated, as according to my case manager, my treatment had exceeded 'the average time allotted for a lumbar strain' despite that fact that I also was afflicted with three bulging lumbar discs. Despite this setback I continued with physiotherapy, at my own expense, and gradually returned to work after five additional months. I firmly adhering to an exercise regimen that included lower back and stomach exercises, numerous lower back stretches. Thus, my back muscles and, according to diagnostic

scans, bulging discs healed and I remained relatively free from LBI/LBP for over two years.

During the previously mentioned 2-year time period, I graduated from University with a Bachelor's degree, and worked at a shelter for street youth. After over a year at this position, I worked in residential treatment homes counselling adolescents and children with behavioural disorders, as well as histories of physical, sexual, emotional abuse, and neglect. During this type of mental health work my back was re-injured during a restraint with a violent client; once again I strained the lumbar muscles of my lower back. However, immediately following my injury I was administered pain medication and high doses of non-steroidal anti-inflammatory medications (NSAID). After 1 month of bed-rest I was prescribed physiotherapy by my doctor, which occurred for approximately two months. I was then referred to a work-hardening program at a Worker's Compensation Board (WCB) treatment centre. I completed this program in 2 months and did not have another LBU/LBP relapse for over one year. The most recent serious LBI/LBP relapse occurred 2 years ago and occurred when I slipped on ice while walking back to my vehicle. Although the nature of the injury was substantially different from previous incidents, the treatments I received were the same: Bed-rest and medication initially, followed by 3 months of community physiotherapy.

As I examined each of the experiences with my injury, I noticed several important differences between them. Although my experiences of LBI and LBP were technically medically similar during every re-occurrence, as well as my experience of the pain inflicted and the prescribed treatment I received, there was a noticeable difference amongst them: My injury recovery time decreased significantly after each successive

injury (i.e., 4 months recently as opposed to almost 1 year at the initial injury). Due to this discrepancy, I searched for any differences between each recovery time period, even though I was prescribed similar medical treatments (e.g., medication, physiotherapy, and back exercises) during each episode of re-injury. What accounted for the decrease in recovery times after each successive injury?

During my second LBI, I was referred to the WCB rehabilitation centre for a 4-hour daily work-hardening program, 5 days a week, for 2 months. This rehabilitation program included exercises and stretches, similar to past treatment regimens. However, my experiences at the centre included one distinct, yet unofficial, difference. During every lunch hour, a group of four patients (myself included) with similar LBI's ate lunch together. Over the course of this hour we unknowingly implemented a limited form of brief group therapy; we listened to each other's problems, provided or suggested advice, and sometimes simply aired our daily grievances to each other. In spite of the fact that we were complete strangers, and not even co-workers within the same occupational field, we supported each other unconditionally and listened empathetically. In addition to these daily group therapy sessions, we participated in most of our rehabilitation activities together. This allowed us to frequently provide verbal support and encouragement to each other over the course of the treatment day. During my most recent LBI, the standardized treatments of physiotherapy and medication were also again unofficially supplemented in one important way: My girlfriend provided immense daily emotional and psychological support to me during my injury recovery; she, like the group mentioned previously, also listened unconditionally and provided support, acceptance, and encouragement, almost as an individual counsellor or therapist would have done.

These forms of personal support helped me realize the numerous sources of psychological and physical stress I was subjected to during the rehabilitation of my LBI. Not only had I faced the musculoskeletal pain of the injury, the physical limitations imposed by the injury, the physical muscle deterioration that occurred during the initial bed rest, and the physical stress of physiotherapy, I also experienced other non-physical stressors: emotional pain from my perception of my own helplessness, the stress associated with a reduced financial income and financial obligations, as well as significant feelings of failure in my numerous roles as a spouse, provider, friend, family member, and employee. I began to ponder what various stress scales would have discovered if they were administered before my LBI and during my recovery, as well as before and during my informal forms of therapy and support. Concomitantly, I also wondered if the psychological symptoms of stress I experienced were associated or correlated with any other aspects of my daily life beyond my injury, such as my university coursework. Both of these questions ignited my interest in the development of this project, and fuelled my desire to research and document other individuals' experiences of the physical and psychological symptom of stress, as well as their experiences with lower-back injuries and lower-back pain.

Statement of the Problem

Setting the Stage: A Rationale for the Project. The concept of stress is one that most people may be very familiar with in the overactive and fast paced western society of the 21st century. Whether one experiences stress due to familial responsibilities, workload at an employment or educational institution, or from the simple rigours of everyday life, it could generically be described as any physical, mental, or environmental factor that

causes a person to develop anxiety (Stewart, 1985). Stress can be more specifically defined as a range of responses, or “the adverse internal and behavioural responses experienced by an individual, to one or more influences which have physical, emotional, or social origins”(Stewart, 1985, p. 152)

In the 1970's, Freudenberger found that people exposed to high levels of external stressors developed a condition he defined as burnout. He specifically defined it as “to fail, wear out, or become exhausted by making excessive demands on energy, strength, or resources”(as cited in Kahill, 1986, p 1043). Over the course of the last 30 years, several assessment tools were developed to assess the level of burnout individuals experienced. One such tool, the Maslach Burnout Inventory (MBI), measures burnout according to three subscales: emotional exhaustion, depersonalization, and reduced sense of personal accomplishment (Burke, Greenglass, and Konarski, 1998). A second burnout assessment tool known as the Tedium (Ted) measure, developed by Aronson and Pines, measures burnout, also on 3 subscales: physical exhaustion, emotional exhaustion, and mental exhaustion (Kahill, 1986). It is on the physical scale where the area of LBI's/LBP resides. For the purpose of this project, a lower back injury refers to any form of physical strain or sprain to the muscles, tendons, or ligaments of the lower back, located near the lumbar vertebrae of the spinal column. In addition, this injury may coincide with bulging, displaced, or herniated discs located between the lumbar vertebrae of the lower back (American Academy of Orthopaedic Surgeons, 2001).

Kantner-Rumplmair, Krismer, Lampe, Ogon, Rathner, Rumpold, & Sollner, (1998) noted that life-event research over the last 30 years focussed on the impact of stress and stressful events on the course of many physical problems, such as headaches

and abdominal pain. However, the investigators also concluded that there was inadequate investigation of stress as related to lower back pain. As mentioned earlier, personal experience combined with the lack of research led this author to develop some questions regarding possible relationships between stress and individuals with LBI/LBP. If individuals experienced multidimensional stress, would this exhibit itself in specific physical symptoms (i.e., LBI or LBP) or psychological symptoms? If so, what treatments would individuals utilize for physical versus psychological symptoms, traditional medical therapy (e.g., physiotherapy, medications) or alternative formats, such as individual or group counselling? Initial research would have to start with an even simpler non-leading question, which will be the central inquiry of this investigation: Do individuals experience psychological or physical symptoms of stress? If so, what interventions do these individuals utilize to alleviate their psychological symptoms of stress (i.e., depression, anxiety, or stress) and/or physical symptoms (e.g., lower-back injuries)? What treatments do these individuals perceive as effective or not effective in treating any of the aforementioned issues? Finally, what etiological work or non work-related factors do these individuals believe contributed to and/or detracted from their difficulties? This research project was undertaken to provide answers to the above questions, as well as to ascertain whether or not the author was alone in his experiences with stress and lower-back injuries. It should be noted that for the purposes of this project, and due to the author's area of professional practice (counselling psychology), the project's focus was directed at the examination of the psychological and physical symptoms of stress in mental health workers.

Despite the stated purpose of this research project, there are even wider reaching reasons that highlight the potential for future research in the area of stress and lower back injuries. In 2006 alone, within the province of Alberta, 9,220 individuals were afflicted with some form back injury (Government of Alberta, 2006). Previous research studies have suggested that up to 80% of the general population will suffer from lower back pain at least once over the course of their lives (Clements, Frymoyer, & Pope, 1983). These statistics indicate that there are sufficient numbers of individuals available within the general population that could participate in further studies, and that could be potentially affected by their results.

The potential ramifications of the research in this area are also important to the economic interests of the general population as well. Within the province of Alberta, in the year 2005 alone, over \$4,000,000,000 was paid in compensation to workers, not including health care, rehabilitation costs, and unresolved compensation claims, which were considerably higher (Workers' Compensation Board of Alberta, 2006). In addition, consider the fact that the WCB operating budget is over \$1,500,000,000 alone. If stress played a significant role in an individual's injury, re-injury, or rehabilitation, then this could have potential treatment implications.

Finally, the co-occurrence of psychological symptoms of stress and lower back injuries or lower back pain in this project could have future research implications. The detection of the aetiology of stress due to pain-related, social, economic, familial, psychological, rehabilitation, or work-related factors would enable future researchers to design larger studies, with more factor sensitive instruments, in order to expand upon the findings of this inquiry. Should this project, and further research, accurately identify

specific sources of stress, specific treatment interventions could be developed to address stress-related physical and psychological symptoms. These interventions could be tested, in concert with conventional treatment, to ascertain their effectiveness in reducing symptoms.

Literature Review

Psychological Stress: A Review

Stress Defined

As mentioned in the introduction of this article, stress is a general subject area that most individuals are familiar with in this 21st century. According to a 2002 Statistics Canada, Community Health survey, an estimated 75% of respondents (ages 25-64) reported the experience of some levels of work-related stress over the past 12 months. Of this 75% of respondents, 35% indicated that they experienced moderate to extreme levels of work-related stress (Statistics Canada, 2002). These statistics would appear to agree with the paragraph's opening sentence, however: What specifically is stress?

For the purposes of this investigation, stress could be defined generally as the psychological, physiological, and behavioural responses by an individual when that individual perceives an imbalance between the demands placed upon him or her, and that individual's ability to satisfy those demands (Palmer, 1989), or "the adverse internal and behavioural responses experienced by an individual, to one or more influences which have physical, emotional, or social origins"(Stewart, 1985, p. 152). These psychological and behavioural responses would constitute what Lovibond (1998) suggests as a "distinct negative emotional syndrome"(p. 525), separate and distinguishable from other

psychological conditions (i.e., depression, anxiety). So what specifically are these internal, behavioural, or physical responses?

Psychological Symptoms of Stress

Numerous psychological effects of stress have been reported, some of which include, but are not limited to: high levels of anxiety or nervousness, feelings of anger or hostility, mood swings, disturbing dreams, depression, difficulty with concentration and/or learning new information, forgetfulness or disorganization/confusion, trouble in making decisions, feelings of being overloaded or overwhelmed, crying spells or suicidal thoughts, feelings of loneliness or worthlessness, increased irritability and overreaction potential, and possible heightened defensiveness (American Institute of Stress, 2006). Some of the aforementioned symptoms correlate with the specific emotional states/syndromes of depression, anxiety, and stress, (e.g., pessimism, excessive worry, irritability, etc.) as suggested by stress researchers (Antony, Bieling, Cox, Enns, & Swinson, 1998; Lovibond, 1998; Lovibond & Lovibond, 1995), as well as the symptoms of such disorders listed in primary Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition-Text Revision (DSM-IV-TR), utilized by psychologists and psychiatrists in North America (American Psychiatric Association, 2000).

Physical Symptoms of Stress

Not only have psychological symptoms of stress been reported; many physical problems have been suggested as signs or symptoms of stress. Such physical symptoms include frequent headaches, jaw clenching or grinding of teeth, an increase in verbal stuttering or stammering, tremors or trembling of the lips or hands, neck/back pain or muscle spasms, faintness or dizziness, frequent sweating or cold and sweaty hands/feet.

dryness in the mouth or problems swallowing, excessive heartburn or stomach pain, nausea, difficulty breathing, insomnia, nervous habits, obsessive or compulsive behaviour, consistent weakness or fatigue, and weight gain or loss (American Institute of Stress, 2006). Not surprisingly, these symptoms also seem to correlate with the previously mentioned stress researchers' (Antony, Bieling, Cox, Enns, & Swinson, 1998; Lovibond, 1998; Lovibond & Lovibond, 1995) physiological symptomatology of depression, anxiety, and stress (e.g., mouth dryness, trembling, breathing problems, slowness/disinterest, etc.), and some physical symptoms of those disorders listed in the DSM-IV-TR (American Psychiatric Association, 2000). In addition, stress researchers have also discovered evidence that suggest that psychological stress impairs healing of surgical wounds following surgery (Broadbent, Petrie, Alley, & Booth, 2003), exacerbates the symptoms of inflammatory bowel disease in afflicted individuals (Searle & Bennett, 2001), and may increase the risk of cardiovascular disease and serious cardiovascular-related events (Melamed, Shirom, Toker, Berliner, & Shapira, 2006). Taken cumulatively, it would appear that psychological stress, regardless of aetiology, has the potential to seriously and negatively impact many aspects of an individual's physical health.

Psychological Stress and Mental Health Professionals

Although the aforementioned statistics suggested that a significant number of individuals in Canada experience some level of work-related stress or stress symptoms (Statistics Canada, 2002), mental health workers' experience of stress may differ from that of the general population. For the purposes of this project a mental health worker may refer to any individual, psychologist, psychiatrist, social worker, nurse, or

counsellor, who provides treatment or services to clients with emotional, behavioural, or psychiatric problems.

Cushway and Tyler (1995) found that, not only do mental health workers experience similar stressors faced by workers in other fields, they also experience additional stressors associated with working with individuals with mental health difficulties. Cushway and Tyler (1996) also discovered significant levels of stress in a sample of clinical psychologists; some of the reported specific sources of stress in this study included clients' behaviours, clients' difficulties, as well as professional self-doubt. The results of a systematic review of stress and stress management research studies in the United Kingdom (U.K.) seemed to echo the aforementioned data: Hannigan, Edwards, and Burnard (2004) found that many clinical psychologists in the U.K. reported that their work provoked significant levels of stress, and that the specific sources of stress included high workloads, poor management, clients' characteristics, and professional self-doubt. These experiences of stress would also not seem to be limited to clinical psychologists; Gersch and Teuma (2005) found that 58% of educational psychologists experienced moderate levels of stress, while over 35% of respondents reported their work as very or extremely stressful. However, in this study workload was cited as the most frequent cause of stress, as well as typical administrative issues. Taken as a whole, the cited studies would seem to confirm the assertion that mental health workers experience higher levels of stress, from a multitude of work and or profession-related sources, than the general population.

In addition, however, it also appears that this experience of significant levels of stress may begin earlier in the professional careers of mental health workers. In a 2001

study of recent counselling program graduates, Truell found that subjects reported numerous sources of stress during their training: stress due to changing relationships with spouses, family, friends, and/or colleagues, stress due to unrealistic self-expectations, and stress from the process of learning counselling. In addition, Cushway and Tyler (1996) discovered significant levels of stress in a sample of junior clinical psychologists and graduate students in clinical psychology; in this study professional self-doubt, and clients' problems and behaviours were implicated as significant sources of stress. A review study by Hannigan, Edwards, and Burnard (2004) cited further research evidence that supported the notion of the presence of intrinsic stressors within the educational training of psychologists, such as multiple clinical and academic requirements, and a general lack of support to trainees.

Professional Sources of Stress in Mental Health Workers. As mentioned in the previous section, mental health workers experience high levels of stress arising from organizational sources, from the nature of the services they provide, as well as their professional educational training. However, it has also been suggested that mental health workers are vulnerable to the effects of stress for a multitude of factors associated with the nature of their profession. O'Connor (2001) proposed that the complex roles played by psychologists served as a significant source of psychological distress for them:

As clinicians, the role encourages, if not requires, a heightened sensitivity to people and environment, a willingness to meet others' needs before one's own, the ability to withhold emotional response in the face of reported trauma and intense emotion....Although a necessary part of the therapy process, we might ask in what other profession individuals are required to repress such basic human

responses to such a degree? What is the consequence of such conditions for the therapist and the client? (p. 346)

O'Connor (2001) also implied that the psychologist's contextual factors, such as clients' traumatic disclosures or clients' behaviours (e.g., physical, emotional, legal), have been associated with one of the most severe manifestations of stress, professional burnout.

In addition to the stress inherent to mental health workers' professional roles and work contexts, Walsh and Cormack (1994) suggested that, even if distressed, psychologists may be resistant to assistance or support, and may view such as threatening for three reasons. Firstly, it was theorized that clinical psychologists might be prone to professional self-doubt and isolation due to a relatively small professional community. Thus, it was not a surprise that Walsh and Cormack (1994) found that psychologists viewed support as stigmatizing within this small community. The second barrier to support the researchers discovered was related to the psychologists' fear of being compared to clients; this comparison of the distressed psychologist to emotionally disturbed clients naturally implied an unfavourable comparison, by other psychologists, of the distressed individual to psychologists that did not seek support (i.e., 'normal' psychologists). Finally, Walsh and Cormack (1994) argued that, when psychologists sought out professional support for distress, they were highly likely to utilize methods to minimize the risk of the aforementioned two barriers; basically, psychologists engaged in a process of assessing the clinical skill level and personal qualities of potential sources of support prior to any request of support or assistance. Thus, in combination, it would seem that all of these barriers could predispose the mental health professional against seeking

support when stressed or distressed, thus serving as additional sources of stress for the professional.

Stress, Lower Back Injuries, and Lower Back Pain: A Review of Existing Research

Over the course of the past twenty years numerous studies researched the experiences of individuals with lower back pain (LBP) and lower back injuries (LBI), in relation to other factors in the environment (e.g., compensation claim; Smith, & Crisler, 1985) or within the individual (e.g., psychiatric factors; Dersh, Gatchel, Meyer, & Polatin, 2002). However, this abundance of information resulted failed to produce any definitive conclusions regarding aspects of LBI's and LBP, their treatment, and their possible relationship to psychological factors. This project will first review a number of articles that are representative of relevant findings in several specific areas of LBI/LBP research. The previously mentioned lack of definitive research findings will be addressed via a review of related problematic research factors such as the variability of several aspects of subject categories, the sheer number of factors assessed, and the tools used to assess them.

Existing LBI/LBP Research

Many avenues of study are currently underway within the general research areas of LBP and LBI; however these research areas include many professional disciplines, such as rehabilitation medicine, psychiatry, psychology, pharmacology, and physical therapy, and would be considered largely multidisciplinary in nature (Marchioli, Alvaro, Koke, Hrudey, Lobalsamo, & Tupper, 1987). Although the aforementioned fields of research/practice may seem unrelated and diverse, in would collectively appear that research on acute or chronic LBP/LBI has focussed on four general areas of study.

Firstly, some researchers have focussed on the study of various factors, such as psychological factors (Fritz, & George, 2002), demographic information (Hunter, Shaha, Flint, & Tracy, 1998), or organizational related issues (Linton, 2001) that might influence an individual's LBP or LBI, his or her ability to return to work following an acute injury, or eventual development of a chronic lower back (CLB) condition (Huneke, 1982). A second general area of study concentrated on physiological factors and LBP or LBI (Flor, & Turk, 1989). Thirdly, researchers attempted to ascertain the rate of incidence and/or the prevalence of psychological conditions or psychiatric disorders at various during stages of an injury (e.g., pre vs. post), as well as any effect they might have on injury (Dersh, Gatchel, Polatin, & Mayer, 2002). The fourth and final research sphere focussed on the usage of various treatments, as well as their efficacy, for the rehabilitation of individuals with acute or chronic LBP/LBI ((Marchioli et al., 1987). For the purposes of this project, and for the sake of brevity, a review of the third category (rate of incidence and/or the prevalence of psychological conditions or psychiatric disorders at various during stages of an injury) will be presented.

LBP/LBI and psychological factors. In the 1970's and 1980's, a multidisciplinary research began to be directed at ascertaining the nature of involvement of psychological factors in the development, rehabilitation, and relapse of individuals with acute/chronic LBI/LBP, specifically in those afflicted with work related injuries. Crisler and Smith (1985) attempted to identify specific demographic factors (one of which was the presence of a confirmed psychiatric disorder) individuals possessed that were associated with their success or failure in rehabilitation of chronic LBP. The researchers found that a significant number of individuals who did not recover from the CLB, and return to

work, also possessed a history of confirmed psychiatric diagnosis. However, Crisler and Smith did not specify or confirm their unsuccessful subjects' exact psychiatric diagnoses, and did not determine whether the psychiatric conditions coincided with, preceded, or resulted from their CLBP or any other factor. Thus, for the previously mentioned reasons, and due to the small sample size of the study, any generalization of the results to the broader population was questionable.

Concomitantly, Dersh, Gatchel, Mayer, and Polatin (2002) conducted a large, intricate study to determine if the onset of psychiatric disorders occurred before or after a LBI. Of the 1595 participants, 724 individuals were afflicted with a work related LBI. The researchers found several interesting statistics: (a) At least one pre-injury psychiatric disorder (DSM-IV, Axis I) was present in more than one third of the subjects; (b) Compared to the lifetime prevalence rate of psychiatric disorders in the general population, the prevalence rate of psychiatric diagnosis within the participants' sample increased significantly following injury; it was found that 99 % of the patients in the study experienced at least one psychiatric disorder occurrence post injury. The researchers also suggested that the discovered elevated prevalence of psychiatric disorder in the participants could have been related to stress associated with the disability; however, further details regarding these specific sources of stress, and their exact effect on the prevalence rate, were not established.

A further subcategory of psychological research conducted on individuals with chronic LBP focussed on the description of general behavioural characteristics. Linder and Spitznagel (1997) completed a review of research studies in this area. They described

the following psychological and behavioural features of patients with chronic lower back pain:

...preoccupation with pain, blaming others for one's own difficulty, suspicion and anger towards others, strong and ambivalent dependency needs, passivity (inward turning), use of pain as a symbolic means of communication, depression, lack of insight, masochism, denial of situational reality, anxiety, bitterness against others who enjoy pain-free life, feelings of isolation and loneliness, inability to deal with repressed anger and hostility appropriately, poor judgement, attempts to control and manipulate others, hopelessness, lack of critical decision-making, inability to cope with stress, inability to meet the activities of daily living, low frustration/tolerance levels, sense of indignation and injustice, and compensation neurosis. (p. 20)

This description can be compared with the following description of a condition that results from long-term exposure to stress, or namely professional burnout. The three signature characteristics of burnout could be described as: (a) Physical exhaustion (low energy level, long-term fatigue, and body weakness); (b) Mental exhaustion (negative attitude towards self, work, and life); and (c) Emotional exhaustion (feeling of hopelessness, helplessness, and entrapment; Maslach, & Schaufeli, 1993, p. 14).

Aspects of the previously mentioned definition, and Linder and Spitznagel's (1997) characteristics of lower back injured patients, bear some similarities with each other. For example, feelings of entrapment, helplessness, and hopelessness are remarkably similar with a sense of injustice/blaming others, feelings of isolation/loneliness, and the lack of ability to cope or develop insight. In addition, chronic fatigue or weakness seems close to the experience of depression and the inability to meet

the demands of daily life. The symptoms of blaming and anger towards others, described by Linder and Spitznagel (1997), appears very close to the definition of mental exhaustion developed by Maslach and Schaufeli (1993). However, what does all this allude to or suggest? The answer to this question is simple: All of the previously mentioned definitions, and specific characteristics of those definitions, correlate with the physical and psychological symptoms of stress mentioned in the initial section of this literature review. Thus, the research in this area of LBP/LBI seems to have suggested and confirmed, at the very least, a link between LBI/LBP and psychological and physical stress.

Specific psychological factors and LBI/LBP. The aforementioned discovery of elevated levels of psychological problems in LBP/LBI stricken individuals resulted in attempts to ascertain the prevalence of specific disorders. However, this research area produced several different, and sometimes contradictory, findings. Fritz and George (2002) conducted a survey-based study on 77 individuals with acute lower back injury. They found that the best predictor of chronic disability due to LBP was the lower back injured individual's elevated fear of injury related pain, as well as the associated avoidance of activity due to that fear. Unfortunately, the assessment instruments the researchers utilized to assess psychological problems (Center for Epidemiological Studies Depression scale and Beck Anxiety Inventory), such as depression or anxiety, are specific assessment tools for specific forms of these disorders; they are not general indicators of psychological problems or conditions (Impara, Murphy, & Plake, 1999) may not have been appropriate tools for the study. In addition, the investigators did not specify the

causes of the participants' fear-related beliefs, such as acute pain, or any other factors that were not measured in the study, namely sources of stress.

An additional sub-area of research into the relationship between LBP/LBI and psychological conditions has focused on the condition of clinical depression. Beaudet and Rasch (1988) conducted a study that would serve as a perfect example of the type of research conducted in this area. These researchers utilized the Beck Depression Inventory (a common depression assessment tool) to measure 103 acute lower-back injured participants' levels of depression in relation to duration of time post-injury. They discovered that depression was not significant in workers up to six months following the initial injury. However, Beaudet and Rasch also found that, with workers whose LBI did not improve 5-6 months after the injury, symptoms of depression approached clinical significance. Unfortunately, the authors did not identify any specific sources of depression, depressive symptoms, or any other psychological factors, such as psychological stress or otherwise.

In a recent empirical and methodological review of studies involving physical injury and psychological factors, Bryant, Creamer, O'Donnell, Schnyder, and Shalev (2003), concluded that the "majority of research in psychological response to physical injury has focused on the injury-producing incident as the main cause of psychological difficulty"(p. 594). As a result, they concluded, the influence of pre- and post- injury factors have been largely ignored, even despite the possibility of their confounding study results. In addition to the author's personal motives, this project attempted to add to existing research through the examination of previously ignored additional factors, such

as psychological symptoms of stress, and more importantly the possible physical symptoms of stress (i.e., LBI/LBP).

Stress and LBI/LBP: Variety of diagnosis and assessment. Over the past twenty years the concept of psychological stress has resulted in the medical community's formulation of various forms of psychiatric diagnoses, such as acute stress disorder (ASD), post-traumatic stress disorder (PTSD), adjustment disorder (AD), and other mental disorder (Other) due to a medical condition (PsychNet-UK, 2003). Each of these categorizations is comprised of many specific symptoms that include, but are not limited to, psychological and physical symptoms of stress. However, a fundamental difference between the above diagnoses is based on the duration of the symptoms. For example, according to the DSM-IV-TR, acute stress disorder begins within four weeks of a person's experience of a traumatic event, and continues for a minimum of two days to a maximum of four weeks (American Psychiatric Association, 2000). In contrast, the symptoms of post-traumatic stress disorder are largely similar to acute stress disorder, but continue for more than one month. As a further example, adjustment disorder symptoms commence within three months of exposure to a stressor but cease within six months of the termination of the stressor and/or consequences of the stressor. Furthermore, if individuals did not possess the specific symptoms of acute stress disorder or post-traumatic stress disorder, they could be diagnosed with adjustment disorder or other disorder due to medical condition (PsychNet-UK, 2003). Thus, different diagnoses would result dependant on the time of the assessment of an individual with an injury, which would link the diagnosis to the event associated with the acute LBI. However, as suggested earlier, the greater the time lapse between injury and assessment, the greater

the possibility that other factors (such as multi-modal stress) affected an injured individual.

Furthermore, Bryant, Creamer, O'Donnell, Schnyder, and Shalev (2003) suggested that psychological symptoms following injury abated within the first few weeks, but they may reappear afterwards. These researchers recommended that any research of psychological factors associated with injury be conducted after this period. Bryant et al. (2003) suggested this to factor out transient conditions and evaluate any enduring psychological problems. This project capitalized upon this suggestion by evaluating lower back-injured individuals who were not in the acute stages of a lower back injury.

Psychological Stress and LBP/LBI. The research studies reviewed in the previous sections of this project paper hinted that stress, associated with LBP/LBI, may play a role in the development, or exacerbation, of psychological disorders (Dersh, Gatchel, Mayer, & Polatin, 2002). This possibly significant role of stress has been indirectly implicated via the completion of several multidisciplinary treatment programs, programs that were designed to alleviate stress via stress treatment and management techniques (Alvaro, Hrudey, Koke, Lobalsamo, Marchioloi, & Tupper, 1987; Linder & Spitznagel, 1997). In addition, Bonde, Gonge, and Jensen (2001) completed longitudinal study of 157 nursing aides; they found a significant association that occurred within 24 hours between exposure to stress and the onset of high levels of acute lower back pain. However, this author has failed to discover any studies that definitively confirmed specific sources of stress within any specific community of people afflicted with lower back problems.

LBI/LBP, stress, and physiological studies. In addition to psychological studies, there has been research accomplished that has documented specific physiological responses in individuals with chronic LBP. Birbaumer, Flor, and Turk (1985) assessed several physiological factors during interviews with seventeen patients with lower back pain. The researchers discovered three interesting findings: (a) During interviews with participants, abnormal back muscle activity occurred during discussions that included personally relevant participant stressors; (b) The abnormal muscle activity was unique: It was not similar to muscle activity associated with other forms of chronic pain, or related to a general physiological reaction to stress; and (c) Individuals with chronic LBP displayed elevated levels of muscle reactivity that more prolonged than normal. Based on these results, Birbaumer et al. concluded that the abnormal muscle reactions contributed to the maintenance of chronic back pain. Flor and Turk (1989) reinforced these findings in a review study of over sixty similar experiments. In this review they reported that individuals with chronic back pain displayed more observable increases in abnormal back muscle activity and more prolonged rates of return to normal activity than in individuals without chronic back pain.

Literature Review Summary

Despite the many advances in the medicinal and pharmaceutical sciences, lower back injuries remain one of the significant physical problems in society today (Chubon, 1985). Individuals afflicted with this problem suffer from poor quality of life, and require significant economic and medical resources to assist them. Research on the psychological and physiological factors involved in LBI/LBP has been multidisciplinary

in nature and diverse; concomitantly, however, research results have produced a variety of methodologically ungeneralizable conclusions for individuals afflicted with this problem (Kantner-Rumplmair, Krismer, Lampe, Ogon, Rathner, Rumpold, & Sollner, 1998). Some studies implicated stress as a mitigating factor, but these frequently focused on events that occurred pre- or concurrent with the injury. This pilot project was designed to expose the individual's experience of the psychological and physical symptoms, such as LBI/LBP, of stress. This project may also contribute in a small way to the development of more qualitative means of examining stress, LBI, or LBP, methods designed not only to anticipate, predict, or correlate factors, but to help us understand the experiences of specific populations of individuals (in this case mental health workers).

Methodology

The Sample

For this project this author interviewed six individuals. These individuals volunteered for this project and were accepted based upon the following criteria:

- a) Participants were at least 18 years of age, as the investigation was concerned with adult individuals.
- b) The volunteers included three males and three females. It was assumed that gender did not play a confounding factor.
- c) The interviewees were mental health professionals who counselled children, adolescents, and teenagers with emotional or behavioural problems.
- d) All participants stated that they were willing to truthfully and fully answer the author's questions, and freely discussed and elaborated upon their answers.

Research Design

This project could be best described as exploratory in nature, in that the author attempted to ascertain each participant's experience of the psychological and physical symptoms of stress. Data pertaining to this investigation was gathered through the utilization of a semi-structured, counselling-style interview, whose questions were adapted from an established survey form (i.e., Depression Anxiety Stress Scale 42 or DASS 42) developed by S. H. Lovibond and P. F. Lovibond. Prior to a review of the interview format, the psychometric properties of the DASS 42 will be briefly described; this will firmly establish the solid psychological foundation upon which this project's interview was constructed. Secondly, the procedures designed to address the interview introduction and the project's confidentiality will be reviewed. This will be followed by a description of the interview, as well as the rationale for the interview. The interview format will be adequately justified through its explanation in terms of the research questions this project was designed to answer.

Description of the DASS 42. The Depression Anxiety Stress Scale 42 or DASS 42 is a self-report assessment tool consisting of three scales that assess an individual's experience of the emotional states of depression, anxiety, and stress (University of South Wales, 2006). This tool was primarily designed "to clarify the locus of emotional disturbance, as part of the broader task of clinical assessment...to assess the severity of the core symptoms of depression, anxiety, and stress"(University of South Wales, 2006, ¶10).

The aforementioned DASS 42 scales consist of 14 items each, which are further divided into five subscales (University of South Wales, 2006); each of these subscales contains items that address a specific content area which respondents rate on a four-point severity or frequency scale. Within the DASS 42, the depression scale screens for seven symptoms of depression: dysphoria, inertia, hopelessness, self-deprecation, devaluation of life, lack of interest/involvement, and anhedonia (Brown, Chorpita, Korotitsch, & Barlow, 1997). The anxiety scale measures an individual's experience of situational anxiety, autonomic arousal, skeletal muscle effects, as well as his or her subjective experience of an anxious affect. The final stress scale of the DASS 42 contains items that detect several symptoms of long-term, non-specific arousal, such as nervous arousal, difficulty relaxing, irritability/over-reactivity, becoming easily upset or agitated, and impatience (Lovibond, 1998).

This author utilized the DASS 42 to derive an interview format for several reasons. Firstly, the DASS 42 has demonstrated high levels of correlation with other similarly reliable and valid psychological assessment tools that measure depression, anxiety, and stress (Brown et al., 1997; Lovibond & Lovibond, 1995; Lovibond, 1998). Secondly, the aforementioned studies also suggested that the DASS provided a clearer distinction between the clinical symptoms of depression and anxiety, when compared with several other depression and anxiety assessment tools. Finally, these results also suggested that the DASS 42 cannot only distinguish between symptoms of depression, anxiety, and stress, but that its Stress scale "measures a distinct negative emotional syndrome, rather than non-specific symptoms common to both depression and anxiety" (Lovibond, 1998, p. 525). Thus, the DASS was able to specifically measure an

individual's symptoms of stress, separate from any co-existing symptoms of depression and anxiety. Given this information, and that the author's primary goal was to document each participants' physical and psychological experiences of stress, one could conclude that the DASS 42 was a suitable assessment tool to derive an interview from.

Interview Introduction. Prior to the commencement of taping, the interviewer made each interviewee aware of his name, position, and institutional affiliation. The general purpose of the interview was then discussed with the participant. Each participant was informed that the interviewer was interested in this project as part of fulfilling the requirements of his Masters degree, and that this project focussed on the physical and psychological effects of stress on practising mental health professionals. The interviewees were informed that the session assisted the interviewer by contributing to the development of the knowledge about each individual's experience of stress.

The introduction was followed by a brief description of the level of confidentiality involved in the project. The interviewees were verbally informed that the results of the interview would not be transcribed within the project, and his/her name, or any other name mentioned during the session, would not appear either, nor would any other particularly identifying information. Participants were informed that their name would only be revealed to the interviewer and the interviewer's project supervisor. Each interviewee was then asked to re-read and confirm their signature of the consent form provided (Appendix D), and also verbally asked permission to audiotape record the interview. Each interviewee was informed that he/she had the option to terminate the interview and withdraw from the project if they felt uncomfortable at any point during the session. The participants were also made aware that, although the interviewer was in a

counselling psychology training program, the interview was not intended to be a counselling or therapy session. Each subject was then informed that if he/she was troubled emotionally, or psychologically, by talking about anything mentioned during the interview, the interviewer would debrief the session with the individual off-tape at the termination of the interview session.

Design rationale: Interview questions. The primary issue addressed by this project is delineated in the following research question: Do mental health professionals experience symptoms of depression, anxiety, stress, or lower-back injuries? These questions were answered via the participants' responses in the interview. The interview has been previously described as 'counselling' based, in that the interviewer did not simply ask questions and record answers, but also demonstrated aspects typical of a counsellor in a counselling situation. For example, the interviewer maintained rapport by demonstrating unconditional positive regard, understanding, and empathy for the interviewee, and utilized verbal reflections to accomplish such (Corsini & Wedding, 2000). The verbal reflections also assisted in rapport building and confirmation of the interviewee's responses.

The structure of the interview contained specific questions adapted from an established psychological assessment, the DASS 42. Based upon the responses given by the participant, the interviewer proceeded to the next primary question and the secondary follow-up question. These secondary questions were included to clarify the aspects addressed by primary question, and to confirm the existence or absence of specific symptoms of depression, anxiety, or stress. The remaining questions were formulated to ascertain if the participants experienced any medical or physical problems, such as

LBI/LBP, and if these problems affected different aspects of their life. The medical questions were also designed to ascertain and whether or not the participants perceived problems in these areas as stressful. It should be noted that the interviewer was allowed to modify the order of questions, and to a minimal extent the exact wording, based upon the interviewee's responses. For example, if the interviewee clearly answered three of the interviewer's primary questions, and by chance answered the secondary questions also, the interviewer did not ask the secondary questions. Thus, if the participant answered a primary or secondary question without the interviewer having actually asked it, the interviewer did not ask the answered question. In addition, the interviewer minimally altered, or simplified some of the questions, only in cases where the participants had not understood them. Finally, some of the interviewees expressed difficulty rating their emotional states, or changes in such states; in these cases the interviewer directed them to rate these states or changes on a ten-point scale (i.e., 1 to 3 as low, 4 to 7 as moderate, 8 to 10 as the high).

Design rationale: Consistency. The project also attempted to answer the following questions: What etiological work or non work-related factors do these individuals believe contributed to and/or detracted from their difficulties? What interventions did these individuals utilize to alleviate their symptoms of depression, anxiety, stress, and/or lower-back injuries? What treatments did these individuals perceive as effective or not effective in treating any of the aforementioned issues? This information was obtained through a case-by-case analysis of the interviewees answers to the interview questions. The interview was designed to elicit the information, by asking different forms of the same question, as outlined in Appendices B and C. Another method

to ensure clarification of data was mentioned in the previous section, that of interviewer reflection of the interviewee's comments. The combination of these two methods resulted in specific answers to each the questions. Each interview was analyzed separately, in terms of similarities and differences in the individual responses between interviewees, in view of their history of psychological or physical symptoms of stress (e.g., LBP/LBI).

Methodological Limitations and Ethical Concerns

There are several methodological implications that resulted from the use of an interview to answer the research questions stated in the introduction. These limitations will be outlined and addressed specifically, as well as how this investigation minimized or overcame them.

Methodological limitations and their solution. There were many possible limitations or problems that arose from the use of the interview format. First, and most obvious, is the validity and reliability of the questions asked. Many of the questions were aimed at determining an individual's perceptions regarding their emotional status and beliefs regarding aspects of their physical condition. They were fundamentally a first person, self-report assessment tool, and may have been interpreted differently with each individual. Thus, it may be questionable whether the answers to the questions actually addressed the issue the investigator intended. The interview was largely adapted from an assessment tool (i.e., DASS 42) that was empirically tested for reliability and validity (Antony, Bieling, Cox, Enns, & Swinson, 1998; Bishop & Lester, 2000; Lovibond, & Lovibond, 1995). Although adapted and altered, the use of proven forms of questions to measure an individual's perception of their levels of depression, anxiety, or stress may have served to minimize error in validity and reliability.

Secondly, there may have been interviewee confusion due to misunderstanding the meaning of questions on a conceptual or semantic basis (Drummond, 2000). This project attempted to diminish the possibility of confusion over terminology in several ways. First, the study retained the use of simple, common sense language that was difficult to misinterpret. If misinterpretation, or misunderstanding had occurred, the interviewer would have explained certain terms more fully, but in a way specific to the project. In addition, the interview structure consisted of primary and secondary questions. Should an individual have not understood the primary question, the interviewer would have elaborated by proceeding to the secondary questions, which were essentially positively and negatively worded forms of the primary questions.

Thirdly, there were several other possible concurrent sources of error, such as participant guardedness (i.e., not answering fully if questions are too personal), self-deception (i.e., individual minimizing their sense of the problem), dishonesty (i.e., not supplying truthful answers to questions), and the provision of socially desirable responses (i.e., providing the interviewer with 'normal' answers) or answers that the subject perceived the interviewer required (Drummond, 2000). This project attempted to moderate these possible confounds in several ways. At the beginning of each interview the interviewer explained the high levels of confidentiality present in the interview format, and that the information gathered would be closely guard to protect the participant's anonymity. As a result of this high level of confidentiality there would be limited negative ramifications for the interviewees. The interviewer also stressed the purpose of the study, and possible benefits for future research. In addition, the interviewer attempted to convey a counselling-based atmosphere by conveying empathy,

understanding, unconditional positive regard for all the interviewees, and employed accurate reflections of the interviewees' statements. All of these techniques should have reinforced the attributes of honesty, openness, and accuracy in the participants' responses (Corsini & Wedding, 2000).

Ethical concerns and their solutions. The most prevalent concern with the methodology that utilized in the study was the fact that the interviewer employed counselling techniques within the interviews. In order to establish rapport and trust with the participant, the interviewer displayed empathy, respect, and unconditional positive regard towards each interviewee. In addition, the interviewer used frequent verbal reflections to clarify interviewee's responses, and conveyed to the participant a level of understanding on the interviewer's part. The interviewer also had a larger degree of freedom in the interview, as the interview guide did not have to be followed exactly, question by question, or word for word. However, at no point during the interviews did the interviewer provide therapeutic advice, or counsel the individual. The only verbal responses made by the interviewer were in the form of questions, clarifications of questions, reflections, or simple prompts (e.g., uh-hmn, okay, etc.) intended simply to confirm that the interviewer understood what the interviewee stated. As a result of this open environment, some interviewees disclosed information that was highly personal and emotional. Through the discussion of emotionally charged events the interviewees could have become psychologically/emotionally troubled by the end of the interview, as this interview format mimicked a counselling session. As mentioned in the introduction the project participants were debriefed, by the interviewer, at the end of the interview; these debriefings were not audiotape recorded. The interviewees were made aware that they

were free to debrief the interview with the interviewer until both agreed that the situation had been resolved and/or emotions subsided.

Interview Results

For the purposes of this project the data gathered from the participants will be presented in two formats. Firstly, each case will be briefly reviewed in order to present a more coherent snapshot of that individual's experience of the physical and psychological symptoms of stress. Secondly, the author will review predominant several themes he discovered within the interviews as a whole, with periodic references to and quotes from specific interview participants. It should be reiterated that the participants' personal descriptions were altered or concealed to protect the anonymity of their genuine responses, summarized in the following section.

Specific Case Results

Participant A. Mr. A is a physically fit middle-aged male who has counselled children, adolescents, and teens for over 20 years. He obtained his Bachelor's degree and Masters degree, and has worked in the same position of employment for the past few years. Mr. A is also reportedly happily married with adult children. Mr. A's responses generally categorized his behaviours, as well as his physical, and psychological status in terms of the present moment (at the time of the interview), and retrospectively over the past 6 months. Mr. A also indicated that his responses applied to his work and non-work life, unless he specifically stated otherwise.

Of the seven items in the interview directed at measuring symptoms of depression, Mr. A's responses indicated that he was experiencing high levels of dysphoria, a moderate lack of interest in his personal life, as well as moderate levels of

devaluation of life and self-deprecation. Mr. A also reported low levels of inertia, hopelessness, and anhedonia at the time of the interview. He added that all of these symptoms had not changed much up to now, and his responses suggested he experienced moderate levels of all the depressive symptoms over the past 6 months.

In terms of the interview questions that targeted anxiety, Mr. A's responses suggested that he experienced no unusual levels of autonomic arousal, such as mouth dryness, an awareness of the action of his heart, or trembling. However, Mr. A admitted that he did experience noticeable perspiration in the absence of physical activity; he stated that he had exhibited this anxious symptom since he was a child. Mr. A also answered that he experienced occasional infrequent difficulty swallowing and breathing (skeletal muscle effects of anxiety), as well as a low grade level of anxiety, nervousness, or panic across situations. He added that these symptoms occurred over the course of the past week and the past six months.

Among the items directed at the measure of stress, Mr. A's responses at the time of the interview suggested that he was experiencing moderate levels of nervous arousal, impatience, and difficulty relaxing, and that these symptoms had increase over the past 6 months. However, he also responded that he experienced a low-grade irritability, and agitation level, which had remained unchanged. Mr. A added that he experienced an almost constant moderate level of lower-back pain and muscle tightness. He stated that this pain had begun following a LBI many years ago, and that he had recently been diagnosed with a lower back disk deterioration and osteoarthritis.

Mr. A attributed some of his difficulties to specific factors. For, example he suggested that his depressive symptoms, such as a reduced sense of self-worth, self-

doubt, sadness, and lower motivation levels (primarily in non-work life), were due to his realization the increased alcohol consumption was becoming problematic, a situation he labelled as a “gathering storm”. Mr. A attributed his increased alcohol consumption as a compensation effort to reduce the low-grade levels of anxiety and nervousness that he constantly experienced. He also indicated that some of his stress related symptoms, such as irritability and difficulty relaxing, occurred at home, during recreational activities, and occasionally at work with colleagues. Mr. A associated increased LBP with intense physical exertion and remaining seated for long periods of time, especially following days with many seated counselling sessions. Mr. A added that he had not been diligent at engaging in activities he typically utilized to ensure his mental health, such as attending a process group, writing, spending time with his wife, and exercising. In spite of these symptoms, Mr. A stated that he still looked forward to his counselling work and his interactions with colleagues.

In terms of Mr. A’s chronic lower-back pain, he stated that he used many forms of intervention over the years. Some of these included massage, physiotherapy, acupuncture, medication, and core muscle strength exercises. Of these he indicated that regular exercise and core muscle strength activities, and better general physical health, seemed to help decrease LBP and muscle tightness.

Participant B. Ms. B is a married female and a professional in the area of mental health; she possesses a graduate level of education in the area of psychotherapy. Ms. B has worked in the same position, counselling children and teenagers, for several years. She also framed her responses in terms of the present moment (at the time of the

interview), versus the past 6 months, and indicated they applied to her work and non-work life.

Ms. B's responses to the interview questions suggested some stable and fairly low-grade or non-existent symptoms of depression at the time of the interview and 6 months prior to it, especially on the items that assessed the devaluation of life, lack of interest, and self-deprecation symptoms. Ms. B's responses on items that assessed anhedonia, dysphoria, hopelessness, and inertia were somewhat more mixed. She indicated that she had experienced a low-grade sense of inertia at work but a moderate level in her non-work life, both at the time of the interview and 6 months previously. Her answers to questions related to symptoms of anhedonia and dysphoria indicated a low level of such symptoms, which had changed from moderate and high, respectively, in the last 6 months. Ms. B also indicated that she had experienced a stable absence of hopelessness in her home life, but a low sense of such in her work life.

On items directed at measuring her level of anxiety, Ms. B reported an absence of any skeletal muscle effects or autonomic arousal. However, she had indicated that her subjective level of anxious affect had increased from moderate (last 6 months) to high in the past 7 days. Ms. B's responses to stress related items suggested enduring moderate levels of stress in terms of nervous arousal, irritability, impatience, difficulty relaxing, and agitation. In terms of her physical health, Ms. B indicated that she suffered from high levels of lower and mid-back pain. She indicated that she was afflicted with some arthritis in her joints and spinal disc problems, discs that were damaged in an accident several years ago. According to Ms. B this LBI/LBP fluctuated from low to high levels of pain over the past six months.

Ms. B attributed some of symptoms to specific factors, and some to more general factors. In terms of certain lower grade symptoms of depression, such as hopelessness, Ms. B attributed such to a decreased enjoyment derived from her work-life. Although she still felt that her work was meaningful, certain organizational and managerial factors detracted from her sense of satisfaction from work. Although Ms. B's responses were absent for symptoms of anxiety, she could not explain or attribute her recent increase in the subjective experience of anxious affect to any specific factor in her life. However, she did relate that several moderate symptoms of stress (nervous tension, difficult to relax) coincided with certain environmental situation, such as a family crisis and dealing with difficult clients. Ms. B also indicated that she became more easily upset or agitated at work recently due to organizational and managerial factors, representing another symptom of stress. In addition, she admitted that she experienced moderate levels of intolerance and impatience, also at work, but usually did not express these feelings.

Ms. B reported a number of coping strategies she employed to deal with the aforementioned symptoms. She stated that she attempted to minimize certain symptoms of depression and anxiety by attempting to change her outlook at work by focussing more on work with clients in the present than on other future organizational factors. Ms. B added that she engaged in intensive self-monitoring activities, mentally "separated work from home", and spent time with her husband and extended family to cope with other symptoms of anxiety and stress. She added that her LBI/LBP was definitely worsened at work by any lifting or sitting for long periods of time. To deal these lower-back symptoms, Ms. B identified exercise, massage, and acupuncture as the most effective

treatments. She added that NSAID's were effective LBP symptom relievers, but that chiropractic treatments were not effective at all in eliminating any LBP.

Participant C. Mr. C is a middle-aged male with undergraduate and graduate level training in psychology. He has worked counselling adolescents for many years, and has held his current position for over five years. Mr. C stated that he is happily married. Like the previous participants Mr. C categorized his responses in terms of the past week versus the past 6 months, and his work life experiences versus his non-work life experiences.

Mr. C's responses to almost all of the depression-related interview questions indicated that he displayed a fairly low-grade level intensity of such symptoms (lack of interest/involvement, devaluation of life, self-deprecation, anhedonia, dysphoria, and hopelessness). The only secondary question that he indicated a moderate severity level response to was the symptom of feelings of inertia. However, Mr. C stated that he believed he experienced all of the depression related symptoms at a moderate level over the past 6 months, symptoms that had decreased in severity over the last few weeks.

In terms of symptoms of anxiety, Mr. C's responses suggested the complete absence of any skeletal muscle effects or subjective experiences of anxious affect (which was rated at a low level for the past 6 months). Nevertheless, he indicated that he had experienced infrequent or low-grade episodes of heart fluttering and perspiration in the absence of excessive heat or physical activity over the past 6 months. These symptoms would be classified as autonomic arousal signs of anxiety.

Mr. C's responses to stress-related interview questions presented a mix of stable versus changing symptoms. Mr. C indicated that he experienced fairly low symptoms of nervous arousal and agitation, and moderate levels of difficulty relaxing, at the time of

the interview as well as during the past 6 months. Concurrently, he believed that he experienced feelings of irritability and impatience over the past 6 months, feelings that decreased recently from moderate to no symptoms. These changes in severity also applied to Mr. C's long experience of LBI/LBP. He was afflicted with his first LBI over 10 years ago, and since then experienced a few automobile accidents that worsened his overall injury (original injury was a strain of the lower and mid-back muscles and a slipped disc).

Mr. C attributed most of his symptoms to a combination of work and non work-related issues. He suggested that his generally higher symptom levels of depression and stress (over the past 6 months) coincided with several disappointments in his personal life, an increase in his LBI/LBP symptoms, and an increased caseload at work. Mr. C added that most of his aforementioned personal life factors had improved recently, which he attributed to the overall improvement of his symptoms. In addition, he stated that he had forced himself to be "more optimistic and organized" to deal with his increased caseload at work, work which he found to be enjoyable, interesting, and energizing. Mr. C added that he utilized his colleagues at work as significant sources of support over the past 6 months. He indicated that his LBI/LBP was exacerbated specifically via sitting or strenuous physical activity (like lifting) for prolonged long periods of time, and by awkward or twisting body positions. Mr. C's last bout of LBP occurred due to a rather innocuous normal human behaviour: a sneeze. As he put it "I was sitting in a restaurant and I sneezed...that was it...my back was out!" When asked about any treatments for his LBI/LBP, Mr. C stated that he had used many therapies over the years, including medication, physiotherapy, deep massage, stretches, core muscle strength exercises.

hot/cold compresses, and increased physical activity/fitness. He identified deep massage/stretching, swimming, and physiotherapy as effective most in treating his LBI/LBP.

Participant D. Mrs. D is a married, middle-aged married female with adult children. Educationally she possesses a university degree in social work, as well as an additional diploma in counselling. She has worked in the area of social work for over 15 years, and has counselled children and adolescents for the past 6 years in the same position. As with previous participants Mrs. D categorized her responses in terms of the past week versus the past 6 months, and her work life experiences versus his non-work life experiences.

Mrs. D's responses to depression related interview questions were stable, yet somewhat contradictory. Her responses suggested that she experienced very low symptoms (i.e., lack of interest, devaluation of life, self-deprecation) at the time of the interview and including the 6 previous months; concomitantly, Mrs. D indicated that she experienced moderate feelings of anhedonia and inertia, and high levels of episodes of dysphoria during the same time periods. In addition, she stated that past moderate levels of hopelessness had decreased recently.

Mrs. D's responses to anxiety and stress-related interview questions were somewhat mixed also. She denied any symptoms of skeletal muscle effects, yet admitted to some recent symptoms of autonomic arousal (i.e., fluttering in her chest/awareness of heart). Mrs. D also indicated that she felt minor symptoms indicative of her subjective experience of anxious affect for the past several months, including the week preceding the interview. In the area of stress, Mrs. D stated that she had experienced moderate

levels of difficulty relaxing, agitation, and irritability, as well as more serious symptoms of nervous arousal and impatience over the past several months. She added that these symptoms had either remitted (arousal, agitation) or decreased in intensity over the past few weeks. However, in terms of physical symptoms of stress, Mrs. D stated that she was afflicted with episodes of shoulder, leg, neck, and lower-back pain and muscle spasms over the past few years. She added that these symptoms were not related to any injury, but that she had been diagnosed with fibromyalgia, a term used to describe several syndromes common in women, but with no identifiable causes (Merck & Co., Inc., 2006).

Mrs. D attributed most of her experienced depression, anxiety, and stress-related symptoms to two major factors, one in her work life and one in her non-work life. Firstly, she stated that her husband experienced several major problems in his physical health recently. She stated that these problems served as a significant source of distress for her. Secondly, Mrs. D admitted to a serious conflict with a co-worker over the past several months. She added that this conflict had escalated to the point where management was involved; Mrs. D stated that she experienced a significant level of anxiety and stress surrounding this work-related situation. However, she added that reading, family contact, travel, collegial support, and spending time with her husband “kept me [her] afloat”. She reiterated that she felt enthusiastic about her counselling work, and believed it to be a meaningful and fulfilling part of her life. Mrs. D indicated that she had received numerous treatments for her LBP, and other fibromyalgia symptoms, such as medication, supplements, massage, and exercise. She added that her LBP symptoms seemed to be aggravated only by sitting for long periods of time or by putting her body in awkward

positions. Mrs. D concluded that the most effective therapy for her LBP was massage and a regular exercise regimen.

Participant E. Mr. E is a single male in his 30's, with a bachelor's degree in psychology and graduate level training in counselling. He is unmarried and has no children. Mr. E has counselled children and teens for almost 10 years, and has been in his current counselling position for over a year. In his responses to the interview questions, Mr. E stated that there was no significant change in his symptoms between the time of the interview and the 6 months prior to the interview.

Mr. E responses to depression-related interview questions were somewhat mixed. He suggested that he experienced enduring minor feelings of anhedonia, dysphoria, and hopelessness, yet concurrently felt moderate levels of lack of interest/involvement, devaluation of life, and inertia, as well as high levels of self-deprecation. Concurrently, Mr. E stated that he experienced no skeletal muscle effects or autonomic arousal symptoms of anxiety, and only a low-grade subjective experience of anxious affect. His responses on stress scale items were mixed also; Mr. E admitted to moderate levels of agitation and difficulty relaxing, but also low levels of nervous arousal, irritability, and impatience. Mr. E stated during the interview that he had a long history of LBI/LBP, medically defined as repeated lower-back strains and bulging discs. He added that these injuries were typically cause by physical overexertion (mainly lifting heavy things) and/or twisting his body in awkward positions.

Mr. E stated that he attributed this symptoms and difficulties to several aspects of his work and non-work life. He specifically attributed his depressive symptoms to perceived organizational difficulties and job insecurity at work, a high caseload, and a

belief that he was a “career failure”. In terms of his moderate and low symptoms of stress and low symptoms of anxiety, Mr. E stated that he believed they were also attributable to the previously mentioned perceived issues, as well as significant professional self-doubt, aspects of difficult cases, and several health concerns (i.e., obstructive sleep apnea, chronic fatigue, low testosterone levels). Despite these mainly work-related challenges, Mr. E indicated he still derived some meaning and satisfaction from counselling, and received a significant amount of collegial support and encouragement. Mr. E added that he tended to cope with his emotional symptoms by spending time with family and friends, as well as regular meditation sessions. However, he added that he had not been as sociable or outgoing over the last few months, and occasionally utilized alcohol to “feel better and more like me than usual”. Mr. E indicated that his LBI/LBP had also been treated in numerous ways over the years and included medication, physiotherapy, stretches, core muscle stability exercises, increased physical activity, hot/cold compresses, traction, acupuncture, meditation, and group/individual counselling. Mr. E added that his LBI/LBP symptoms “came and went”, but were usually aggravated by sitting or maintaining awkward body positions for extended periods of time, intense physical activity of any kind, and stress. He stated that the best treatments to date, in order of effectiveness, were medication (NSAIDs), back stretches/core exercises, hot/cold compresses, and group/individual therapy. Mr. E indicated that physiotherapy treatments provided limited assistance, and acupuncture had no effect at all.

Participant F. Mrs. F is a married middle-aged woman with several adult children. She obtained a bachelor’s and masters degrees in social work and has worked in the field for almost twenty years. Mrs. F has counselled children, adolescents, and teens

in her current position for over 5 years. In her interview responses, it should be noted that Mrs. F made it very clear that she has experienced significant differences between her emotional status at the time of the interview versus the past 6 months.

Mrs. F reported that, over the past 6 months, she experienced varying symptoms of depression, anxiety, and stress. Her responses to depression related questions implied that she experienced low-grade feelings of self-deprecation, moderate levels of lack of interest, devaluation of life, anhedonia, dysphoria, and helplessness, as well as more serious feelings of inertia. At the time of the interview, Mrs. F indicated that all of these symptoms decreased to low or moderate levels, except for symptoms of self-deprecation (which increased from low to moderate). During the previous 6 month time period, her responses suggested that she experienced no symptoms of anxiety, aside from low levels of autonomic arousal (action of the heart). According to Mrs. F these feeling had also changed recently at the time of the interview, in that she no longer displayed any skeletal muscle effects or autonomic arousal symptoms but had experienced moderate feelings of anxiety/fear.

With respect to symptoms of stress, Mrs. F's responses indicated moderate symptoms in all categories, except impatience (rated as nonexistent), over the past 6 months. However, she admitted that she recently experienced lower levels of difficulty relaxing and nervous arousal, unchanged moderate feelings of agitation and irritability, and higher low levels of impatience. With respect to physical symptoms of stress, and her general physical condition, Mrs. F stated that she suffered from a LBI (slipped disc) as a

young adult. Since then she was diagnosed with spondylitis, which is the inflammation of the spine and joints (Merck, 2006), and osteoarthritis. Mrs. F added that she experienced infrequent episodes of LBP, associated with the aforementioned conditions.

Mrs. F attributed different aspects of her difficulties to different etiological sources. She stated that certain aspects of her work-life contributed to feelings of stress and depression. These aspects included conflict with co-workers, as well as a perceived problem at the managerial level. Mrs. F added that certain non-work problems, such as loss of a family member and a reduced activity and “self-care” level, only served to exacerbate the symptoms of depression and stress. However, despite these issues, Mrs. F stated that she believed her actual counselling work was enjoyable and worthwhile. She added that her family, relationship with her husband, activities such as Tai chi, and exercise helped her to cope. Mrs. F stated that her LBP, and associated conditions, were exacerbated by remaining seated for extended periods of time, and a lack of exercise or activity. She added that she had been treated with medication, physiotherapy, chiropractic interventions, and core muscle stability training. Mrs. F stated that she believed the most effective treatments for her LBP were physical fitness and exercise.

Interview Themes

Upon closer examination of the aforementioned interview results, this author noticed the presence of several themes in the content of the majority of the interviews:

1. The presence of psychological symptoms of depression, anxiety, and stress in all of the interviewees.

2. The interviewees' use of a variety of methods of physical and psychological methods to cope with their psychological symptoms of depression, anxiety, and stress.
3. The important role played by collegial support in stress management and coping.
4. The reported presence of physical symptoms of stress (LBP), and previous LBI's, by all mental health workers.
5. The use of predominantly physical methods to treat physical symptoms of stress (LBP).
6. The enduring sense of meaningfulness and satisfaction derived from counselling work.

These general themes will be reviewed, with reference to the interviewee's responses and specific quotes from certain interviews. These themes will also be related to relevant findings in stress management and LBI/LBP research. It should be noted that, for the purpose of this project, the formulation of themes was not accomplished with the use of any statistical or heuristic formula. The themes were simply generated following the author's qualitative correlation of the responses made by each participant mental health worker. It should also be noted that the discovered themes in no way imply the evidence for an enduring psychological or physical principle or property. However, the interview results will be correlated with related sources of published, peer-reviewed empirical data.

Presence of psychological symptoms of depression, anxiety, and stress. Through their responses, all of the mental health workers that participated in this research project indicated that they experienced varying levels of depression, anxiety, and stress at the

time of the interview, and during the 6 months prior to the interview. Specifically, all of the participants admitted to having experienced 4 of the 7 symptoms of depression screened for in the interview: Self-deprecation, inertia, anhedonia, and dysphoria. However, the remaining depressive symptoms (lack of interest/involvement, hopelessness, and devaluation of life) were reported by 5 of the 6 participants (excluding Ms. B). In the area of stress symptoms, 5 of the 6 of the participants experienced varying degrees of difficulty relaxing, irritability, and impatience at the time of the interviews. Low to moderate feelings of nervous arousal and agitation were reported by most of the respondents, aside from Mrs. D. Finally it would appear that, in terms of symptoms of anxiety, each mental health worker reported at least one symptom of skeletal muscle effects, autonomic arousal, and/or a subjective experience of anxious affect.

As mentioned earlier, these reported symptoms of distress are not necessarily uncommon in mental health professionals. In a study of clinical psychologists, Cushway and Tyler (1996) discovered significant levels of psychological distress. Farber (1990) elaborated on this concept of distress and suggested that

The unique demands and personal challenges involved in dealing with intense therapeutic relationships and negative client behaviours place psychologists at risk for burnout...decreased work effectiveness, absenteeism, physical complaints, drug and alcohol abuse, insomnia and interpersonal problems, irritability outside the office, and loss of belief in one's effectiveness. (as cited in Stevanovic, & Rupert, 2004, p. 301)

Concurrently, Hannigan et al. (2004) found evidence, from several studies, which suggested that significant numbers (up to 40%) of psychologists and mental health

professionals experienced high levels of psychological disturbance. Thus, it would seem that there is ample evidence to suggest that significant levels of distress exist in mental health professionals.

Variety of methods used to cope with psychological symptoms of depression, anxiety, and stress. All of the participant mental health workers identified several methods they utilized specifically to cope with their symptoms of depression, anxiety, and/or stress. Some of these activities could be described as interaction-based or physical in nature, while others were more internal or psychologically based. The participants reported coping methods that included physical exercise, engaging in sporting activities, spending time with a spouse, family members, or friends, reading, taking vacations/travelling, attending a process group and individual counselling, talking with colleagues, as well as numerous other specific recreational activities. Some mental health workers also mentioned more personal coping strategies that included changing one's personal outlook/attitude towards work (i.e., positive versus negative), intensive self-monitoring of emotions/thoughts/behaviours, mental compartmentalization or "leaving work at work" (Ms. B), re-prioritization of work goals (i.e., focus in client not caseload), and meditation.

In a 2002 review of research in the area of stress management and mental health professionals, Edwards et al. discovered ample evidence for the use a wide range of stress "moderators"(p. 210) that helped to decrease the impact of stress. Some of these moderators included social support networks, physiological release mechanisms, and good coping skills. Wityk (2002) also stressed the importance of the utilization of methods of "self-care", by mental health professionals, to protect themselves against the

effects of stress. These methods encompassed several areas, some of which included physical health, leisure activities, emotional coping strategies, support networks, a modified work environment, and work on cognitive factors. Stevanovic and Rupert (2004) also found that evidence for the effective use of several strategies employed by mental health professionals to cope with stress, such as non-work activities with family member and friends, personal self-awareness, and keeping work demands in perspective. A 2002 systematic review of stress management research in the area of clinical psychology, conducted by Hannigan et al. (2004), also several recommended stress management interventions, such as confidential counselling, stress management workshops, and relaxation training. Some of the techniques reviewed in this paragraph are identical to those disclosed by the project's mental health worker participants. Thus, it would appear that the projects' participants have been utilizing some effective and empirically sound methods of coping and managing their levels of stress.

Role played by collegial support in stress management and coping. Amongst the stress management and coping strategies mentioned by the project's participants, the majority of them (Mr. A, Mr. C, Mrs. D, & Mr. E.) noted the significant role played by the support they received from their colleagues. This collegial support role encompassed several activities and included not only professional consultation and guidance, but also personal consultation and guidance at work and after work. The subjects reported that this collegial support not only helped them perform their work duties more competently and confidently, they also frequently helped to improve their personal emotional states and professional outlook. As Mr. C indicated "I have a confidence about being on a team of

certain people....Feeling the amount of support I may get from my co-workers, I specifically mean the team that I am on, really provides me with a comforting feeling”.

These feelings of support were reiterated by Mr. E:

I always know I can discuss things with my colleagues at work...It could be issues related to a specific case, or to my caseload in general..I can always talk to someone on my team about stress, or work, or whatever. I think that is pretty great...that feeling like I can always approach my fellow colleagues to discuss anything. It really gives you a sense of confidence and safety that you will not be overwhelmed.

These reports of the important role played by collegial support do not exist in isolation.

Hannigan et al. (2004) cited research evidence for the use of regular professional consultation, as well as staff support groups, as means of stress management for mental health workers. Wityk (2003) also reviewed several studies that implicated the important role of peer support in stress management at work. Wityk’s (2003) review suggested that collegial support at work, in the form of good peer relations, communication, and feedback, and sharing of workload played a large role in counteracting a severe form of stress, professional burnout.

Physical symptoms of stress and previous LBI’s. At the time of each interview, all of the mental health worker participants admitted varying degrees of mid or lower-back pain (LBP). Of the six workers interviewed, five also indicated a past history of LBP over the past 6 months, as well as a previous history of lower-back injury. However, given the fact that all of the participants reported varying levels of psychological distress, in the form of symptoms of depression, anxiety, or stress, it is not entirely surprising that they

also reported symptoms of LBI and LBP; as mentioned earlier Bonde, Gonge, and Jensen (2001) found a significant association between exposure to stress and the onset of high levels of acute lower back pain. Truchon (2001) also suggested that the constellation of symptoms, experienced by individuals with chronic LBP, might be stress-related.

A second interesting finding, within this particular theme of LBI/LBP, is related to the impact the experience the LBI/LBP had on the afflicted participants. Several of the mental health workers involved in the study reported symptoms of depression, anxiety, or stress associated specifically with their experience of LBI/LBPP. Mr. C noted that:

There moments when I thought this problem [LBI/LBP] was never going to end..in that it was a permanent condition. It seemed like a very hopeless situation, like nothing was going to work or help. I had less satisfaction with work and feelings that I couldn't do things.

Within the aforementioned quote alone there is mention of feelings of hopelessness, anhedonia, dysphoria, impatience, and irritability, symptoms of depression and stress. Ms. B echoed some of these concerns between her physical and emotional health, as a reduced ability “to carry around or manoeuvre things at work...or to do the type of house chores or responsibilities I have there..physically...effects me emotionally.” Some of these previously mentioned emotional effects included worry or anxiety associated with the LBI/LBP and/or re-injury. As Mrs. F put it “You know that you are not supposed to do a lot of lifting..but when you do some lifting you try to bend the knees and be careful. But you can still get hurt....In your mind you're still worried about this.” Mr E' s experience reiterated this worry/anxiety factor:

When you're not in any LBP things are good..but there's always this thing in the back of your mind saying 'Make sure you don't sit too long...Make sure you lift things safely..etc...' There always seems to be that worry there, because if you forget you'll pay for it the next morning when you can't get out of bed from LBP. But..then if your back really hurts you can't do a lot of stuff at home...Even at work you don't want to sit in sessions for too long....but if you shorten them you start to doubt whether or not you're doing your job...So either way you're stressed out!

Mr. E's quote hints at his experience of symptoms of anxiety and stress when an LBP/LBI was present or absent. Thus, it would appear that this sample of participants experienced some psychological symptoms associated with their experience of and with their LBI and LBP.

Methods used to treat physical symptoms of stress (LBP). When asked about any methods utilized to treat their physical symptoms of stress, specifically LBP, five of the six participants mentioned modalities that were decidedly physical or medical in nature. Some of the reported therapies included medications (anti-inflammatory, muscle relaxants, and painkillers), physiotherapy (tens, ultrasound, traction, manipulation/stretching), chiropractic interventions, massage, core stomach muscle stability training, acupuncture, muscle stretches, physical exercise, and reduced time spent seated. Each participant seemed to have developed a preferred, yet highly individual, course of treatment for LBI/LBP. For example, Mr. A preferred exercise and massage, Ms. B swore by acupuncture, Mr. C utilized physiotherapy and massage, Mrs. D chose massage, Mr. E preferred medication, and Mrs. F preferred exercise. Most of

these treatments are commonly utilized methods of treating individuals with LBP (Turk & Burwinkle, 2005). Despite these differences, all the mental health workers indicated that they believed physical fitness and/or activity played a key role in preventing relapse of LBI's and LBP. These reports also seemed to be consistent with rehabilitation literature that advocates for the exercise-based treatment of lower back pain (Rogers, 2006).

However, the most striking theme this author discovered during the analysis of the interviews was that, of the six participants, five had not mentioned any non-medical or psychological treatment associated with the rehabilitation of lower-back injuries or lower-back pain. As mentioned earlier in this project, many of the participants used physical and psychological treatments for perceived psychological symptoms of stress. Yet, despite the fact that lower-back pain can sometimes be a physical symptom of psychological stress (American Institute of Stress, 2006; Flor, & Turk, 1989), most of the participants treated their LBP with physical means only. This result stands in contrast to the results of a large body of research evidence that advocates the use of psychological treatments, such as pain management and relaxation training (Marchioli et al., 1987; Turk & Burwinkle, 2005) or stress management and biofeedback (Spitznagel & Linder, 1997), for LBP in concert with medical treatments. None of the mental health workers in this project identified participation in any specific psychological treatment for LBP or pain management programs, aside from Mr. E, who infrequently utilized individual or group counselling and meditation as forms of managing stress.

Sense of meaningfulness and satisfaction derived from counselling work. Despite the participants' experiences with the psychological symptoms of depression, anxiety,

and stress, and experiences with LBI and LBP, all of the involved mental health workers stated that they experienced a significant amount of satisfaction or meaningfulness from their counselling work; these feelings were reportedly experienced be in spite of clients' negative behaviours and emotions, high caseloads, managerial issues, and paperwork/administrative responsibilities. As Mrs. F indicated "Work has really inspired me... You know when you get a case where you have an idea how to proceed... I've been having a lot of that kind lately. So I've been very enthused by work". These feeling of satisfaction and enthusiasm were echoed by Mr. A, "The work has always been meaningful... working with kids and families has its challenges for sure..and there are always tough times or difficult cases...but...my interest or enthusiasm may vary...but the meaningfulness of my actual work is a constant". Mr. E added that "You could be having a crappy day, with tons of paperwork and other admin issues...and then you go out and have a session with a few clients, or a group session....those are the times that are satisfying...when you're actually working with a kid or kids to affect some change". These reported feelings of satisfaction or meaning are not at all uncommon amongst mental health workers. In a large study of practicing psychologists in the United States, Stevanovic and Rupert (2004) found that the participants derived a significant amount of satisfaction from their work. Amongst these work factors, the researchers found that "intellectual stimulation, and enjoyment of work" in addition to "promoting growth in clients or helping others" were rated as high sources of satisfaction, sources that helped them cope with the pressures of their profession (Stevanovic and Rupert, 2004, p.307). In fact, Norcross (2000) suggested that, based on recent research findings in this area, psychotherapists' focus on the rewards and satisfactions of clinical work were critical

components of self-care, as “ psychotherapists related that the impact of their work has made them better, wiser, more aware; accelerated their psychological development; increased their capacity to enjoy life; and felt it like a form of spiritual service”(p. 712). According to the responses obtained in this project, it would appear that the participating mental health professionals have maintained a sense of satisfaction or enjoyment in their work; thus, they have unknowingly or knowingly maintained a critical component of professional psychological self-care.

Conclusion

Limitations of the Project and Recommendations

Although this project produced some interesting results, there are several reasons why any conclusions drawn from the findings are limited to the actual sample from which the information was obtained. It should be noted that, as the purposes of the project were to document mental health workers’ experiences of stress and to answer the author’s central project questions, the central goal was not to identify any global factor related to symptoms of depression, anxiety, stress or LBI/LBP and mental health professionals. Thus, the author will only provide a brief review of the possible limitations of the project, as well as recommendations for future research that could potentially overcome the limitations.

Firstly, the study focussed upon only six mental health workers; thus, the sample size was too small to be able to generalize its findings to the larger population of mental health workers. Any similar studies would have to use much larger samples of mental health professionals to derive any general conclusions regarding symptoms of depression, anxiety, or stress. Secondly, the highly qualitative format of the interview stressed the

determination of the participants' experience of symptoms, rather than replication of findings. Thus, it is highly doubtful that this project could be exactly replicated with other samples of mental health workers in the future. Further study in this area would have to include more quantitative methods of symptom measurement and/or more rigidly structured qualitative interview formats. Thirdly, as suggested by Hannigan et al. (2004), there was the distinct possibility that the mental health worker participants perceived the interview questions as somewhat professionally or personally threatening. As a result of this, they may have answered the interview questions in an altered manner that did not accurately reflect their true experience of symptoms. Any similar future qualitative study would benefit from the utilization of an interviewer that was not known professionally to the participants. Finally, the project did not employ an additional, more objective self-report depression, anxiety, and stress measurement tool, such as a paper-and-pencil self-report assessment, with which to correlate the qualitative interview results. Future studies in this area would benefit from the use of such a tool in order to confirm the validity of the subjects' responses, and to guard against unreliability of symptom measurement.

Personal Learning Statement and Action Plan

This research project was ultimately conducted to provide resolution to several questions, listed in the introduction to the paper, as well as to ascertain whether or not the author was alone in his experiences with stress, lower-back injuries, and lower-back pain. Thus, this project will conclude with a question-by-question review of what the author personally learned from the project and graduate work, as well as his action plan to utilize this newly discovered information in his professional counselling practice.

Do individuals experience psychological or physical symptoms of stress?

According to the results of this project, and the information I have learned from my graduate coursework, I confirmed that fellow professionals definitely experience symptoms that include features of depression, anxiety, and stress. More importantly, I also realized that some of my experiences with the psychological and physical symptoms of stress were similar to other professionals' experiences. I learned that, not only do we experience such symptoms, but our profession is distinctly at risk for the development of psychological difficulties (O' Connor, 2001). Norcross (2000) went so far as to state that mental health professional needed to first and foremost recognize the demands of the profession, "Begin by saying it out loud: Psychotherapy is often a gruelling and demanding calling"(p. 710).

As a result of this professional realization I must constantly, and conscientiously, plan to monitor myself for symptoms of depression, anxiety, and stress. This could take many formats, such as self-monitoring, regularly debriefing and perception checking with colleagues, meeting consistently with supervisors for feedback on work performance, and/or honestly personally filling out an established psychological assessment tool (e.g., DASS 42). The honest utilization of these methods of self-monitoring would not only help prevent the exacerbation of any serious psychological or physical symptoms depression, anxiety, or stress.

What interventions do individuals utilize to alleviate psychological symptoms of stress (i.e., depression, anxiety, or stress) and/or physical symptoms (e.g., lower-back injuries)? What treatments do these individuals perceive as effective or not effective in treating any of the aforementioned issues? The most personally relevant finding of this

project was the highly individualized methods of self-care, or coping, other mental health workers developed to address their psychological symptoms and physical symptoms (specifically LBP). In addition, each mental health worker perceived the efficacy of different treatment or coping strategies differently. However, and most importantly, the project and literature review made it patently clear that a diverse and multi-dimensional approach was important in the treatment of psychological symptoms (Coster & Schwebel, 1997; Hannigan et al. 2004; Norcross, 2000) of stress, as well as physical symptoms of stress, such as LBP (Marchioli et al., 1987; Spitznagel & Linder, 1997; Turk & Burwinkle).

Although each professional mental health worker developed a relatively unique coping or self-care strategy, it became clear that I must utilize more variety in the methods I utilize for stress management and coping. Thus, not only must I try to utilize the previously mentioned self-monitoring strategies, I must also incorporate other methods more frequently. As mentioned earlier, these methods need to include the physical, such as exercise, muscle stretches, massage, core stomach muscle stability training, but also the psychological (meditation, pain control training, thought monitoring/self-awareness) and the interpersonal (i.e., spend time with family and friends). If I am able to accomplish this personally and professionally, I will have achieved what Norcross (2000) defined as “diversity and synergy” in my life (p. 712). This could only result in an even more satisfying and effective work and non-work life.

Finally, what etiological work or non work-related factors do these individuals believe contributed to and/or detracted from their difficulties? As a result of this research project, and my graduate experiences, I discovered that I was not alone in my experience

of multiple sources or symptoms of stress in life. However, I also found that some of these stressors were similar to those experienced by other professional mental health workers in my field of work, such as high caseloads or symptoms of lower-back pain. This process of stressor and stress symptom identification also unwittingly initiated my own process of self-care; as I gathered and analyzed others' experiences, I began to examine my own thoughts, feelings, and behaviours in detail. Thus, this process not only assisted in my own stressor and stress identification, but it enabled me to become more familiar with the process of self-monitoring and self-awareness. As I become more practised in these processes, I hope to be able to become more proactive with respect to stress management, as Edwards et al. (2002) suggested, "The most effective way of managing stress...is to eliminate the stressors themselves. To achieve this, management strategies must be proactive rather than re-active"(p. 213). Therefore, both personally and professionally, I must be more organized and self-aware, psychologically and physically. By this I mean that I must work to not only monitor my feelings, thoughts, and reactions to events to ensure my mental health, I must also monitor my own behaviour and engage in activities to ensure the health of my lower back.

Summary

In this research project, the author's personal experiences with stress and LBI/LBP were introduced as the catalyst that initiated his interest in the topic. The project was justified via the description of the quality of life for individuals afflicted with stress, economic factors, the identification of issues that had not been addressed through prior research, as well as a review of research directed at psychological factors associated with lower back injuries, such as stress. The basic definitions and symptoms of

psychological stress and lower back injuries were reviewed, as well as relevant research finding in these areas. The procedures that were implemented in this investigation were examined in terms of their purpose in this project. Theoretical problems and ethical concerns with this project were reviewed, as well as several probable solutions to these issues. The results of the author's semi-structured interviews were then presented in the form of six brief case vignettes and a thematic six-point summary of the interviewee's responses. The various limitations of the project were then listed, and several solutions suggested for future research. The aforementioned project themes were linked to results from existing research findings in the area of stress, stress management, and LBI/LBP.

Finally, the author disclosed his own personal interpretation of the impact of the research project's results, and suggested the implementation of a multidimensional stress management program in his life to mitigate future physical and psychological effects of stress. Although the author must ensure that the previously mentioned processes are implemented in the future, he must also take the time to keep problems in perspective and remember his purpose and reasons for practising in the area of mental health. As Norcross (2000) so eloquently stated:

Without trivializing the strains of this "impossible profession," practitioners would do well to remember that the vast majority of mental health professionals are satisfied with their career choices and would select their vocations again if they knew what they know now. Most of our colleagues feel enriched, nourished, and privileged in conducting psychotherapy. The work brings relief, joy, meaning, growth, vitality, excitement, and genuine engagement, both for our patients and

for us. Lose not these moorings amidst the inevitable strains of practice and the rising industrialization of our craft. (p.712-713)

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Appendix A

Actual Interview Questions

The following questions were to be asked during the interview. It should be mentioned again that the interview is intended to be unstructured, formatted as more of a counselling session. The subjects will also be reminded to characterize their responses in terms of their experiences within the past week and that the questions apply to their daily work and non-work activities. All primary and secondary questions will be followed up with queries to determine if the interviewee's answer was typical of their daily life behaviour, or if there has been a recent change from typical behaviour.

1. In your reflecting upon your daily life (work and non-work life) have you found them to be worthwhile, satisfying, or meaningful?
 - a) In the last 7 days have you been interested or enthusiastic about anything in your life? If so, what have you been interested in or enthusiastic about? Is this a recent change?
 - b) Over the past week, have you felt that your life has been meaningful or worthwhile? If so or not so, was this a general feeling or one that was specific to certain situations? Please describe those situations. Is this a recent development or not?
 - c) Have you felt worth more or less as a person? If worth more or less, was this general feeling or did it coincide with certain situations? Please explain and indicate if this is a recent change or not?

2. Please describe your level of energy in your current daily activities, work and non-work related? Please explain and indicate if this is a change in energy level.
 - a) Have you noticed periods of time when you found it difficult to relax, or calm down following an upsetting event? If so, what was happening immediately prior to these periods of time?
 - b) Do you feel that you have experienced a significant amount of nervous tension or nervous energy? If so, in what situations had you experienced this nervous tension?
3. How would you describe your current level of motivation or initiative to accomplish things in your life, at work and at home? Has this always been the case, or is it a recent change?
 - a) During your daily life activities, do you find it difficult to work up the initiative to do them? If so, what activities are difficult and which activities are not as difficult?
4. In the course of your daily life activities, at work and otherwise, what range of emotions have you experienced? Has this range changed recently?
 - a) During this past week did you experience any enjoyment or positive emotions at all? If so, please describe the situation(s) you were in when you experienced these emotions.

- b) Have there been times when you felt sad or depressed? If so, please describe the situation(s) you were in when you experienced these emotions.
5. In your daily work and non-work life activities, what general mood or emotional state do you feel you have experienced?
- a) In your daily life activities, what general mood or emotional state do you feel you have been experiencing? Is this mood typical or atypical in your life?
- b) Do you feel you have been generally in a calm state or in an irritable or touchy state? Is this feeling new or typical in your daily life?
6. Have you experienced any difficulty with basic automatic bodily functions? If so or not please indicate if this is typical of your life or a change.
- a) Have you experienced times when you had any difficulty breathing without having done any physical activity or difficulty swallowing? If yes, please tell me about what you were doing when you experienced these symptoms.
7. In the last week, have you experienced any physical symptoms of exertion without having performed any physical activity prior to the symptoms? Is this normal for you or otherwise?
- Over this past week have you experienced occasions of:
- a) dryness of the mouth?
- b) noticeable perspiration without any physical activity or high temperatures?

- c) an awareness of the action of your heart without any physical exertion?

If yes for any of these, please describe the situation you were in when these occasions occurred.

8. Have you recently experienced any physical or medical problems or difficulties? If so,
 - a) Please tell me about your physical or medical problems. Specifically was there a medical diagnosis for your problem and/or a medical treatment? If so, please describe your experience with treatment as well as your evaluation as to its effectiveness or efficacy.
 - b) Have you experienced this physical problem before? If so, please describe your life circumstances at the time the problem occurred.
9. Have you experienced or felt high levels of anxiety or nervousness? If so, or not, please indicate if this is a usual or unusual occurrence.
 - a) In the past week have you experienced any situations when you were very nervous or worried about situations when you might panic? If so, please describe the situation(s).
 - b) Have there been any times in the past seven days when you experienced feelings of faintness, feelings of panic and terror, or feeling scared for no reason?
 - If yes, please tell me about these times.
10. Were there any times when you experienced any shakiness or trembling in your body? Is this experience a typical one for you or a new development?

- a) Have you experienced any episodes of hand trembling or shakiness in the legs in the last week? If so, please describe the situation when these episodes occurred.
11. Have there been situations in the past week where you have felt interrupted or delayed in any way? Is this feeling a normal reaction for you or abnormal?
- a) Do you believe you have reacted appropriately to situations or been able to tolerate interruptions? If not, please describe the situations when you over-reacted or were intolerant.
- b) How have you reacted to delays or interruptions in your daily life? If impatient or intolerant, please describe the occasions when you experienced these feelings.
12. What do you feel and think about your future life after today?
- a) Do you look forward to continuing with your daily life and your future life? If so, please tell me about what you look forward to in the future.
13. In closing, is there anything you would like to add, related to what we just talked about, that you feel is important?

Appendix B

Depression Anxiety Stress Scale 42 (DASS 42) adapted into the area of LBI/LBP and separated into targeted categories of secondary attribution-related questions in the areas of depression, anxiety, and stress. Questions will be asked with the caveat that the subjects restrict the scope of their answers to their daily life within the last seven days and/or their experiences over the course of their current or most recently experienced LBI/LBP.

*14 Depression Scale Items**Secondary Interview Questions**Anhedonia sub-scale.*

- I couldn't seem to experience any positive feeling at all.
- I couldn't seem to get any enjoyment out of the things I did.

During this past week did you experience any enjoyment or positive emotions at all? If so, please describe the situation(s) you were in when you experienced these emotions.

Dysphoria sub-scale.

- I felt sad and depressed.
- I felt down-hearted and blue.

Have there been times when you felt sad or depressed? If so, please describe the situation(s) you were in when you experienced these emotions.

Hopelessness sub-scale.

- I could see nothing in the future to be hopeful about.
- I felt that I had nothing to look forward to.

Do you look forward to continuing with the rehabilitation of your lower-back injury and your future life? If so, please tell me about what you look forward to in the future.

*Depression Scale Items**Secondary Interview Questions**Lack of interest/involvement sub-scale.*

- I was unable to become enthusiastic about anything.
- I felt that I had lost interest in just about everything.

In the last 7 days have you been interested or enthusiastic about anything in your life? If so, what have you been interested in or enthusiastic about?

Inertia sub-scale.

- I just couldn't seem to get going.
- I found it difficult to work up the initiative to do things.

During your daily life activities do you find it difficult to work up the initiative to do them? If so, what activities are difficult and which activities are not as difficult?

Devaluation of life sub-scale.

- I felt that life wasn't worthwhile.
- I felt that life was meaningless.

Over the past week, have you felt that your life has been meaningful or worthwhile? If so or not so, was this a general feeling or one that was specific to certain situations? Please describe those situations.

Self-deprecation sub-scale.

- I felt I was pretty worthless.
- I felt I wasn't worth much as a person.

Have you felt worth more or less as a person? If worth more or less, was this general feeling or was it linked to certain situations? Please explain.

*14 Anxiety Scale Items.**Autonomic arousal sub-scale.*

- I was aware of dryness of my mouth.
- I perspired noticeably (e.g., hands sweaty) in the absence of high temperatures or physical exertion.
- I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat).

Secondary Interview Questions

Over this past week have you experienced occasions of:

- a) dryness of the mouth?
- b) noticeable perspiration without any physical activity or high temperatures?
- c) an awareness of the action of your heart without any physical exertion?

If yes for any of these, describe the situation you were in when these occasions occurred.

Skeletal muscle effects sub-scale.

- I experienced trembling (e.g., in the hands).
- I had a feeling of shakiness (e.g., legs going to give way).

Have you experienced any episodes of hand trembling or shakiness in the legs in the last week? If so, please describe the situation when these episodes occurred.

Skeletal muscle effects sub-scale.

- I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion).
- I had difficulty in swallowing.

Secondary Interview Questions

Have you experienced times when you had:
a) difficulty breathing without having done any physical activity?
b) difficulty swallowing?
If yes, please tell me about what you were doing when you felt these symptoms

Situational anxiety sub-scale.

- I found myself in situations that made me so anxious I was most relieved when they ended.
- I was worried about situations in which I might panic and make a fool of myself.
- I feared I would be "thrown" by some unfamiliar task.

In the past week have you experienced any situations when you were very nervous or worried about situations when you might panic? If so, please describe the situation(s).

Subjective experience of anxious affect sub-scale.

- I had a feeling of faintness.
- I felt scared without any good reason.
- I felt I was close to panic.
- I felt terrified.

Have there been any times in the past seven days when you experienced:
a) feelings of faintness?
b) feelings of panic and terror?
c) feeling scared for no reason?
If yes, please tell me about these times.

*14 Stress Scale Items**Secondary Interview Questions**Difficulty relaxing sub-scale.*

- I found it difficult to relax. _____
- I found it hard to wind down. _____
- I found it hard to calm down after something _____
upset me.

Have you noticed periods of time when you found it difficult to relax, or calm down following an upsetting event? If so, what was happening immediately prior to these periods of time?

Nervous arousal sub-scale.

- I felt that I was using a lot of nervous energy. _____
- I was in a state of nervous tension. _____

Do you feel that you have been experiencing a significant amount of nervous tension or nervous energy? If so, in what situations had you experienced this nervous tension?

Being easily upset/agitated

- I found myself getting upset by quite trivial things. _____
- I found myself getting upset rather easily. _____
- I found myself getting agitated. _____

Have there been times when you were easily agitated or became upset very easily? If so, would you tell me about those events?

Irritable/over-reactive sub-scale.

- I tended to over-react to situations. _____
- I found it difficult to tolerate interruptions to
what I was doing. _____

Do you believe you have reacted appropriately to situations or been able to tolerate interruptions? If not, please describe the situations when you over-reacted or were intolerant.

Irritable/over-reactive sub-scale.

Secondary Interview Questions

- I felt that I was very irritable.
- I felt that I was rather touchy.

Do you feel you have been generally in a calm state or in an irritable or touchy state?

Impatient sub-scale.

- I found myself getting impatient when I was delayed in any way (e.g., elevator, traffic lights, being kept waiting).
- I was intolerant of anything that kept me from getting on with what I was doing.

How have you reacted to delays or interruptions in your daily life? If impatient or intolerant, please describe the occasions when you experienced these feelings.

Depression Anxiety Stress Scale 42 (DASS 42) adapted to the area of /LBI and separated into targeted categories of primary and secondary attribution-related questions in the areas of depression, anxiety, and stress. Questions will be asked with the caveat that the subjects restrict the scope of their answers to their daily life and /LBI over the course of the past 6 months.

Secondary Interview Questions

Primary Interview Questions

Depression Scale Items

Anhedonia sub-scale.

During the past 6 months did you experience any enjoyment or positive emotions at all? If so, please describe the situation(s) you were in when you experienced these emotions.

Dysphoria sub-scale.

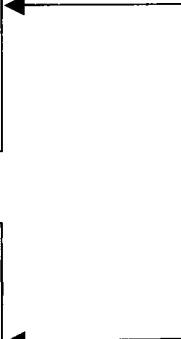
Have there been times when you felt sad or depressed? If so, please describe the situation(s) you were in when you experienced these emotions.

Hopelessness sub-scale.

Do you look forward to continuing with the rehabilitation of your lower-back injury and your future life? If so, please tell me about what you look forward to in the future.

In the course of your daily life activities, what range of emotions have you experienced?

What do you feel and think about your future life after today?



Depression Scale Items

*Lack of interest/
involvement sub-scale.*

In the past 6 months have you been interested or enthusiastic about anything in your life? If so, what have you been interested in or enthusiastic about?

Devaluation of life sub-scale.

Over the past 6 months, have you felt that your life has been meaningful or worthwhile? If so or not so, was this a general feeling or one that was specific to certain situations? Please describe those situations.

Self-deprecation sub-scale.

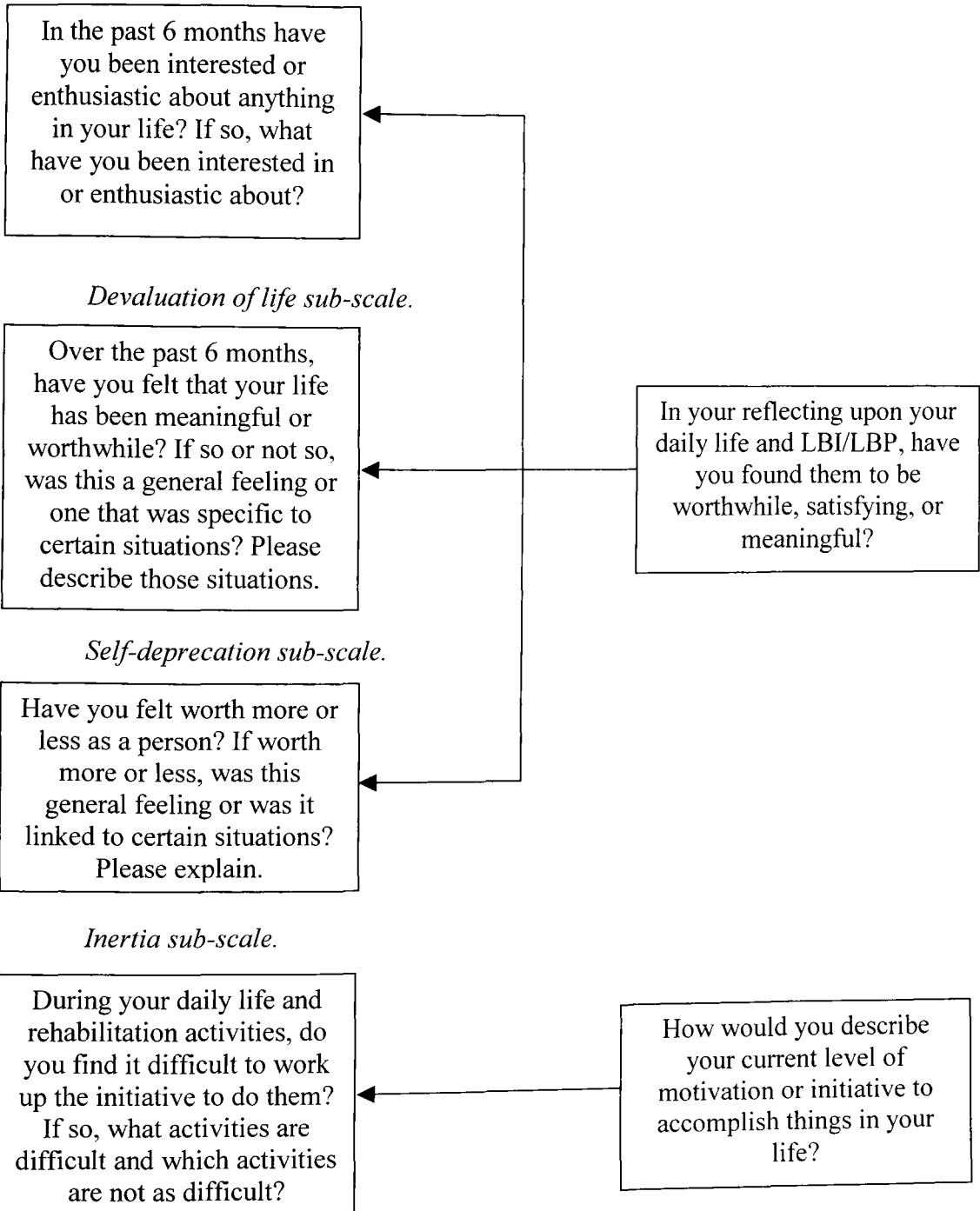
Have you felt worth more or less as a person? If worth more or less, was this general feeling or was it linked to certain situations? Please explain.

Inertia sub-scale.

During your daily life and rehabilitation activities, do you find it difficult to work up the initiative to do them? If so, what activities are difficult and which activities are not as difficult?

In your reflecting upon your daily life and LBI/LBP, have you found them to be worthwhile, satisfying, or meaningful?

How would you describe your current level of motivation or initiative to accomplish things in your life?



Anxiety Scale Items

Autonomic arousal sub-scale.

Over this past week have you experienced occasions of:

- a) dryness of the mouth?
- b) noticeable perspiration without any physical activity or high temperatures?
- c) an awareness of the action of your heart without any physical exertion?

If yes for any of these, please describe the situation you were in when these occasions occurred.

In the last week, have you experienced any physical symptoms of exertion without having performed any physical activity prior to the symptoms?

Skeletal muscle effects sub-scale.

Have you experienced any episodes of hand trembling or shakiness in the legs in the last week? If so, please describe the situation when these episodes occurred.

Were there any times when you experienced any shakiness or trembling in your body?

Have you experienced times when you had:

- a) difficulty breathing without having done any physical activity?
- b) difficulty swallowing?

If yes, please tell me about what you were doing when you felt these symptoms

Have you experienced any difficulty with basic automatic bodily functions?

Anxiety Scale Items

Situational anxiety sub-scale.

In the past week have you experienced any situations when you were very nervous or worried about situations when you might panic? If so, please describe the situation(s).

Subjective experience of anxious affect sub-scale.

Have there been any times in the past seven days when you experienced:
a) feelings of faintness?
b) feelings of panic and terror?
c) feeling scared for no reason?
If yes, please tell me about these times.

Have you experienced or felt high levels of anxiety or nervousness?

Stress Scale Items

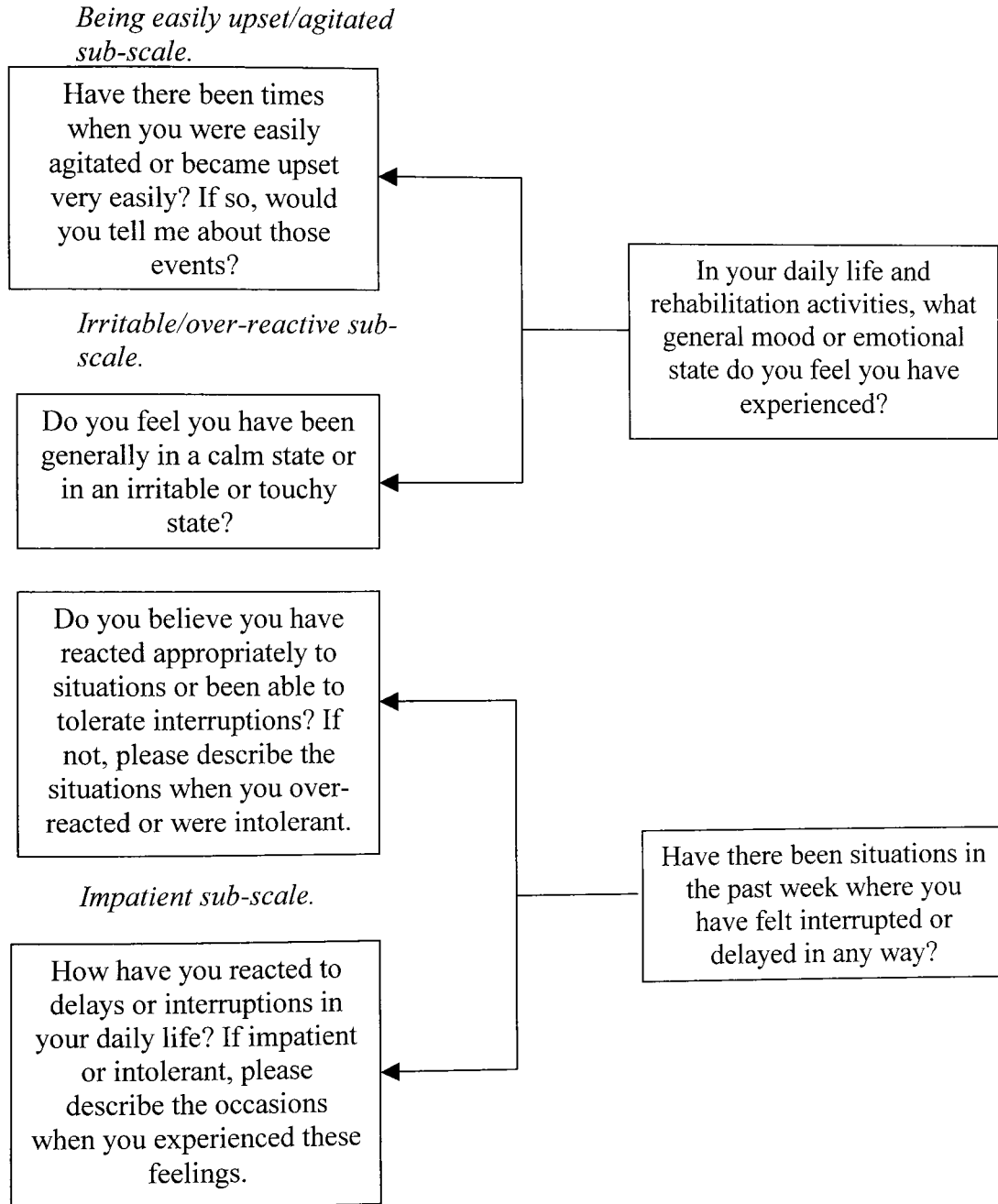
Difficulty relaxing sub-scale

Have you noticed periods of time when you found it difficult to relax, or calm down following an upsetting event? If so, what was happening immediately prior to these periods of time?

Do you feel that you have been experiencing a significant amount of nervous tension or nervous energy? If so, in what situations had you experienced this nervous tension?

How would you describe your level of energy in your daily activities?

Stress Scale Items



Appendix D

Letter of Consent

The
University of
Lethbridge

4401 University Drive
Lethbridge, Alberta, Canada
T1K 3M4
403-329-2251
FAX: (403) 329-2252

FACULTY OF EDUCATION

Date:

Dear Sir or Madam,

I am currently enrolled in the Master of Education program, specializing in Counselling Psychology, at the University of Lethbridge. In order to complete my graduate training, I am conducting research for a Research Project related to the psychological and physical effects of stress experienced by professionals that counsel children or teenagers with emotional or behavioural problems. I would like to meet with you to discuss your perceptions on how stress affects your life, as well learn how you cope with such effects. I anticipate that the results of this interview may contribute to the understanding of the physical and psychological effects of stress on professionals working in the mental health field.

I would like you to contribute to this project by taking part in an audio tape-recorded interview session. This would only require only 1-1.5 hours of your time. Any information obtained during this interview will be handled in a professional, and strictly confidential, manner. In addition, identifying information will not be included in any analysis or publication of the results of this Research Project.

I would greatly appreciate your participation in this study. If you require any further information, or have any questions, please contact me at (780) 919-3447 or by e-mail at damian.sarnecki@uleth.ca. You may also contact my Project supervisor, Dr. Richard Butt, University of Lethbridge, at (403) 329-2434, for any additional information.

Sincerely,

Damian Sarnecki

Please indicate your willingness to take part in this important project by signing this letter in the space provided below. I will contact you at a later date to confirm your participation, and to set a date and time for an interview.

I, _____, agree to participate in the Research Project interview described above.

Contact Telephone Number: _____

Signature of Participant: _____ Date: _____

Witness Name: _____

Witness Signature: _____ Date: _____