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THE LIVED EXPERIENCE OF INDIVIDUALS WITH CHRONIC BACK AND NECK PAIN, DEPRESSION, AND/OR ANXIETY

Tara L. Palmeri, Ph.D.

Western Michigan University, 2015

More than 1.5 billion people worldwide suffer from chronic pain (CP). People who experience chronic pain are 20 to 40% more likely to meet criteria for an anxiety disorder, and three to four times more likely to be clinically depressed than their pain-free counterparts. The relationship between CP and mental health has been studied quantitatively; however, few researchers have investigated co-morbid CP and mental health through a phenomenological lens. The subjective nature of the relationship is not comprehensively addressed within the literature.

This qualitative phenomenological study explored (a) how individuals with chronic back and/or neck pain (CBNP) experience, understand, and draw conclusions about the relationship between their physical pain and mental health; and (b) how individuals perceive talking about their experiences with CBNP and depression and/or anxiety. To further understand the intersection between CP and mental health, 10 individuals diagnosed with CBNP and depression and/or anxiety, were interviewed. Lengths of diagnoses ranged from 1 year to 30 years. The participants are six females and four males. Racially, they are black, Latino, or white, and between the ages of 19 and 53.
Major findings of this study are as follows. Participants perceived (a) a direct and positive relationship between their CBNP and depression and/or anxiety; (b) pain to precede depressive and/or anxiety symptoms; (c) a cyclical nature of the relationship; (d) five underlying mechanisms that affect the relationship (disability, tension, vulnerability, thought patterns, stress); (e) navigating institutions, conflicting treatment protocols, identity changes, invalidation, isolation, and lethargy as unique experiences; (f) the opportunity to talk about CBNP and depression and/or anxiety as beneficial; (g) themes around coping strategies, the process of acceptance, future plans, and treatment utilization; and (h) that the experience transcended all contexts and was all-encompassing.

Discussion of the findings include relating findings to existing research, implications for medical and mental health professionals, limitations and strengths, and recommendations for future research. This researcher sought to give voice to this often silenced population and aid in the development of effective strategies to improve the quality of life for individuals with co-morbid CP and mental health distress.
THE LIVED EXPERIENCE OF INDIVIDUALS WITH CHRONIC BACK AND NECK PAIN, DEPRESSION, AND/OR ANXIETY

by

Tara L. Palmeri

A dissertation submitted to the Graduate College in partial fulfillment of the requirements for the degree of Doctor of Philosophy
Counselor Education and Counseling Psychology
Western Michigan University
August 2015

Doctoral Committee:

Alan Hovestadt, Ed.D., Chair
Stephen Craig, Ph.D.
Glinda Rawls, Ph.D.
ACKNOWLEDGMENTS

The opportunity to solidify my professional development within the context of a study that I am so passionate about is greatly appreciated. First and foremost, I am indebted and grateful to the ten participants who co-created this project with me. The words of those ten individuals composed the most meaningful segments of the following manuscript. I dedicate this study to them and to all individuals who experience chronic pain and associated mental health struggles. This is as much your dissertation as it is mine.

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Tara L. Palmeri
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CHAPTER I

INTRODUCTION

Overview of the Study Topic

The following is a qualitative study exploring how individuals with chronic back and/or neck pain (CBNP) experience, understand, and draw conclusions about the relationship between their physical pain and mental health. The relationship between chronic pain (CP) and mental health, particularly depression and anxiety, has been extensively studied quantitatively; however, few researchers have investigated CP and mental health through a phenomenological lens. The subjective nature of the relationship between CP and mental health is not comprehensively addressed within the current literature. The purpose of this study was to uncover how individuals with CBNP experience, understand, and draw conclusions about the relationship (or lack thereof) between physical pain and mental health, as well as to understand how participants perceive talking about their experiences with co-morbid CBNP and depression and/or anxiety. It is hoped that the findings of this study will aid mental health and medical professionals in creating effective interventions for individuals with chronic physical pain and mental health distress.

Background and Key Research Findings

Pain is considered chronic when it lasts longer than three months (Asher, 2005). Pain may be categorized as nociceptive pain, neuropathic pain, or mixed pain (Keay, Clement, & Bandler, 2000). Nociceptive pain involves nerves (nociceptors) that sense and respond to damaged body parts (Richeimer, 2000). These nerves transmit pain
signals, via the peripheral nerves and the spinal cord, to the brain. Nociceptive pain is usually constant and localized, with the exception of visceral pain. Visceral pain is a type of nociceptive pain that involves organs, is episodic, and is not localized (Richeimer, 2000). Most nociceptive pain is acute and subsides once the damaged area heals; however, that is not always the case. For example, arthritis is considered nociceptive pain, yet it is often constant. Individuals with nociceptive pain tend to respond well to pharmaceutical pain management techniques (e.g., opioids; Richeimer, 2000). In essence, nociceptive pain acts as an alarm that functions to alert the brain to take action (i.e., seek treatment).

Neuropathic pain is experienced when there is an injury or dysfunction in the peripheral or central nervous system. Injuries are the most common cause of neuropathic pain, although the injury may or may not involve actual damage to the nervous system (Richeimer, 2000). For example, nerves may be infiltrated, compressed, strangulated, or inflamed—none of which are considered damaged. Neuropathic pain often persists for months or years after the apparent healing of the damaged tissue (Richeimer, 2000). Unlike nociceptive pain, neuropathic pain is not functioning as an alarm to alert the brain to damage, but instead acts as a broken alarm system (Richeimer, 2000). Neuropathic pain is described as a broken alarm because the brain still registers pain, but there is not necessarily damage. Neuropathic pain is usually chronic and is not often fully reversible.

Mental health care is especially important in the treatment of neuropathic pain because therapeutic interventions often address this faulty alert system (Richeimer, 2000). Furthermore, pain may also be categorized as mixed, in which pain is caused by a complex interaction of nociceptive and neuropathic components. For example, pain may
be initiated by a damaged area, heal, and then become inflamed (e.g., migraines; Richeimer, 2000).

Because individuals with neuropathy rarely achieve full or sustained remission, the field of pain management has thrived. Pain management is an interdisciplinary branch of health care that aims to improve the quality of life for individuals with CP (Hardy, 1997). Along with medical practitioners, psychiatrists, occupational therapists, physical therapists, nurse practitioners, social workers, and others, psychologists and mental health professionals are key players in pain management (Main & Spanswick, 2000).

**CP and Counseling Psychologists**

There is a paucity of literature linking CP with the professional practice of counseling psychology; however, the high prevalence of CP has implications for the field of counseling psychology (Hession, 2010). Persons with CP and mental health issues are likely to seek services from counseling psychologists, frequently reporting problems such as sleep difficulties, poor concentration, fatigue, identity concerns, career issues, depression, anxiety, and a range of other emotional problems, which are embedded within the scope of practice of counseling psychology (Hession, 2010). The aforementioned presentations are often issues that counseling psychologists work with (Hession, 2010).

Currently, medical communities recognize that counseling psychologists can play an important role on pain-management teams. For instance, counseling psychologists’ emphasis on the therapeutic alliance, non-verbal communication, empathy, meaning-making, career development, empowerment, prevention, strength-based intervention, and
quality of life are valued assets, which are not typically provided by other members on pain-management teams (Conyne, 2013; Gelso, Nutt Williams, & Fretz, 2014; Hession, 2010). Effective therapeutic strategies for pain-management include (a) cognitive-behavioral therapy (Castro & Daltro, 2009; Glombiewski, Hartwich-Tersek, & Rief, 2010; Rode, Salkovskis, Dowd, & Hanna, 2006); (b) acceptance and commitment therapy (Wicksell et al., 2013); (c) neurofeedback (Jensen, Grierson, Tracy-Smith, Bacigalupi, & Othmer, 2007); (d) interpersonal psychotherapy (Allen, Tsao, Seidman, Ehrenreich-May, & Zeltzer, 2011; Monsen, Monsen, Svartberg, & Havik, 2002); (e) person-centered psychotherapy (Ruddy, Borresen, & Gunn, 2008); (f) grief therapy (Gureje, 2008); and (g) integrative psychotherapy (Godfrey, 2007; Smeeding, Bradshaw, Kumpfer, Trevithick, & Stoddard, 2010).

**CP and Depression and Anxiety**

Depression and anxiety, as defined by the *DSM-IV* and *DSM-5* (American Psychiatric Association, 2000, 2013), have high co-morbidity rates with CP (Currie & Wang, 2005; Fishbain, Cutler, Rosomoff, & Rosomoff, 1997; McWilliams, Cox, & Enns, 2003; Narita et al., 2006; Vowles, Zvolensky, Gross, & Sperry, 2004). Due to the high prevalence of depression and anxiety in individuals with CP, quantitative researchers have investigated the correlations between the co-occurring conditions and found a direct relationship between CP and depression and anxiety (Castro & Daltro, 2009; Godfrey, 2007; Greenberg & Burns, 2003). Improvements in depression and anxiety were associated with improvement in pain (Monsen et al., 2002). Bair, Robinson, Wayne, and Kroenke (2003) conducted a meta-analysis of 42 studies and reported that an individual with CP is three to five times more likely to be depressed than their pain-free
counterparts. Twillman (2007) reported that individuals with CP are 20 to 40% more likely to experience an anxiety disorder, as opposed to individuals without CP.

Theunissen, Peters, Bruce, Gramke, and Marcus (2012) conducted a meta-analysis on 29 studies, ranging from 1958 to 2010, regarding preoperative anxiety, catastrophizing related to pain, and postoperative CP. In sum, 14 instruments were used to assess anxiety and pain. Theunissen and colleagues reported that anxiety and pain catastrophizing predicted CP. Sixty-seven percent of researchers that investigated musculoskeletal surgery and 36% of researchers that investigated other types of surgery found a significant association between preoperative anxiety and postoperative CP. “The overall pooled odds ratio ranged from 1.55 (95% CI = 1.10 – 2.20) to 2.10 (95% CI = 1.49 – 2.95)” (Theunissen et al., 2012, p. 819). Theunissen et al. also found that pain catastrophizing may be more predictive of CP than general anxiety. Accordingly, they recommended that anxiety measures be incorporated in future studies investigating the prediction and transition from acute to CP.

While a direct correlation between CP and depression and anxiety is empirically established, the nature of the relationship is less established and appears complex. Many variables affect the relationship between CP, depression, and anxiety. A review of 304 studies on CP identified seven frequently studied variables: (a) self-efficacy, (b) anxiety sensitivity, (c) health anxiety, (d) interpersonal relationships, (e) social support, (f) disability, and (g) quality of life. The cumulative research on these variables suggests a paramount message: individuals with CP and depression and/or anxiety tend to have a poorer quality of life than their pain-free counterparts (Bair, Wu, Damush, Sutherland, & Kroenke, 2008; Waxman, Tripp, & Flamenbaum, 2008).
Focus of the Current Study

Practical Problems

The prevalence of people who suffer from CP is vast and is even more apparent when examined in relation to mental health conditions, such as depression and anxiety. More than 1.5 billion people worldwide suffer from CP (Global Industry Analysts, 2011) and 50% of worldwide clinically depressed individuals report pain as a symptom (Van Puymbroeck, Zautra, & Harakas, 2005). Thirty-seven percent of individuals will experience CP in their lives, and 25% of those individuals will meet the criteria for depression (Poleshuck et al., 2010). Approximately 100 million Americans experience CP; more Americans suffer from CP than do Americans suffer from cancer, diabetes, and coronary heart disease combined (Institute of Medicine, 2011).

Concurrently, health care costs have become increasingly crucial in the United States of America (Institute of Medicine, 2011). Given that health care costs are under such scrutiny in our current economic climate, it is important to consider the implications of CP on health care. In 2010, the total cost of CP-related health care ranged from $560 billion to $635 billion in the United States (Institute of Medicine, 2011). Mossey and Gallagher (2004) explained that psychological impairments and pain-related disability is a serious problem, for both the United States and the individuals trying to afford proper health care and pain management. It appears that the relationship between CP and depression and anxiety have an additive effect on health care costs (Arnow et al., 2009).

While CP is an important worldwide economic issue, it is even more significant to individuals who have CP. In 2003, the Institute of Medicine (2011) conducted a nationwide survey and revealed that 70% of Americans feel that pain research should be
a top priority among researchers, and 60% of Americans even agreed to pay an increase of $1 per week in taxes to fund such research (Institute of Medicine, 2011). Furthermore, Lavie-Ajayi, Almog, and Krummer-Nevo (2012) reported that the medical and public discourse ignores and delegitimizes individuals with CP, and that more research is needed to give voice to the CP population.

The Researchable Problem

How the relationship between CP and mental health operates is not clear. How that relationship is experienced by the individual with CP is even less understood (Waxman et al., 2008). There is a paucity of qualitative studies, a method highly recommended for use by pain researchers (Eccleston, Crombez, Aldrich, & Stannard, 2001; Jordan, Eccleston, & Osborn, 2007; Smith & Osborn, 2007; Snelgrove, Edwards, & Liossi, 2013; Waxman et al., 2008), particularly in order to understand the full impact of pain on individuals. Consequently, there is a lack of information on how individuals with CP experience or understand the relationship between pain and mental health. It is also unknown how discussing CP and mental health is perceived by individuals with CP. This gap in the research is particularly problematic for mental and medical health professionals because it has been shown that clients’ perceptions often influence treatment outcomes (Lambert & Barley, 2001).

The Purpose of the Study

Methodology that reflects the subjective nature of pain (e.g., phenomenology) is needed to supplement the existing quantitative research. Multiple researchers (Eccleston et al., 2001; Jordan et al., 2007; Smith & Osborn, 2007; Snelgrove et al., 2013; Waxman et al., 2008) have suggested that future investigations need to directly represent
individuals with chronic physical pain and concurrent mental health distress. This study aimed to highlight the individualized nature of co-occurring physical pain and psychological distress. This study investigated how/if individuals with CBNP perceive the relationship between physical pain and mental health. This study also sought to understand and analyze the lived experience of individuals with CBNP and depression and/or anxiety disorder(s), as well as to understand how participants experienced talking about their CBNP and mental health distress. It was hoped that this study would lead to increased understanding of co-morbid CBNP and depression and/or anxiety, and consequently aid in the development of effective interventions for individuals with chronic physical pain and mental health distress.

**Research Questions**

The overarching research questions that guided this study were:

1. Do participants perceive a relationship between CBNP and mental health issues (i.e., depression and/or anxiety), and, if so, how do they experience, understand, and draw conclusions about that relationship?

2. How do participants experience talking about their CBNP and depression and/or anxiety with the interviewer?

The subquestions were:

1. If participants perceive a relationship between their CBNP and depression and/or anxiety, how do they describe the directionality or causality within that relationship?

2. How are participants experiencing the relationship between the *treatment* of CBNP and mental health conditions?
These questions addressed the researchable problem and purpose of the study by focusing on how the actual individual made sense of co-morbid CBNP and depression and/or anxiety. The subquestions were designed to direct the participant to *re-live* experiences with CBNP and depression and/or anxiety, starting from the origin.

**Significance of the Study**

It is hoped that the findings of this study will be important to mental health and medical professionals, as well as to any person who suffers from CP. For example, this study was designed to increase professionals’ understanding of individuals who experience co-occurring CBNP and mental health distress. Furthermore, it is hoped that this increased understanding will aid in the development of effective treatment plans and therapeutic interventions for individuals with co-occurring CBNP and depression and/or anxiety. Consequently, it is hoped that more effective interventions and health care will lead to higher quality of life for individuals with CP. Also, this study *gave voice to* and empowered a population that often suffers in pain *silently*. The average CP individual’s experience is often invalidated by others and he/she often feels as though he/she should silently carry-on or push through daily activities (Campbell & Cramb, 2008).

The inherent nature of phenomenological inquiry allows participants to tell their stories and be heard. Part of what was analyzed in the current study was how the participants experienced this process. Researchers (Briscoe, 2000; Gudmannsdottir & Halldorsdottir, 2009; Lavie-Ajayi et al., 2012; Snelgrove & Lossi, 2009) have reported that individuals with CP are often ignored and delegitimatized. For example, family members and friends may appear burdened or annoyed by individuals’ pain conditions (Briscoe, 2000). Busy doctors may spend little time with their patients and not listen to
them carefully (Briscoe, 2000; Gudmannsdottir & Halldorsdottir, 2009). Physical therapists may become discouraged and frustrated with their clients’ lack of improvement and may inaccurately assume noncompliance (Lavie-Ajayi et al., 2012). Since the current participants had the typical experience described above, they benefited from the experience of telling their story to an engaged listener. Understanding how participants perceived talking about their CBNP and mental health distress, in the structured context of an interview, will facilitate future research on effective psychotherapy interventions with the CP population.

**Definition of Terms**

*Anxiety Disorders:* Anxiety disorders share features such as excessive fear (an emotional response to real or perceived threats), excessive anxiety (anticipation of future threats), and related behavioral disturbances (American Psychiatric Association, 2013). Diagnoses that are considered anxiety disorders are (a) separation anxiety disorder, (b) selective mutism, (c) specific phobia, (d) social anxiety disorder, (e) panic disorder, (f) panic attack specifier, (g) agoraphobia, (h) generalized anxiety disorder, (i) anxiety disorder due to another medical condition, (j) other specified anxiety disorder, and (k) unspecified anxiety disorder (American Psychiatric Association, 2013). Participants in the current study had at least one of the former diagnoses, and/or a depressive disorder, for a duration of at least one year.

*Chronic Back Pain:* Pain that lasts longer than three to six months and is identified as being localized in the thoracic and/or lumbar region of the back, often categorized into one of four categories: (a) nonspecific back pain, (b) back pain potentially associated with radiculopathy (dysfunction of a nerve root), (c) back pain
potentially associated spinal stenosis (narrowing of the spinal canal), or (d) back pain potentially associated with another specific spinal cause (Chou et al., 2007).

Chronic Pain: Pain that lasts longer than three months. Some researchers define chronic pain as pain that lasts longer than six months (Asher, 2005). In the current study, participants had experienced pain for at least one year.

Chronic Neck Pain: Pain that lasts longer than three to six months, identified as being localized in the neck or cervical spine. Neck pain can result from numerous problems with any of the structures in the neck, including the cervical vertebrae and intervertebral discs, nerves, muscles, blood vessels, esophagus, larynx, trachea, lymphatic organs, thyroid gland, or parathyroid glands (Misailidou, Malliou, Beneka, Karagiannidis, & Godolias, 2010).

Depressive Disorders: Depressive disorders share features such as sadness, emptiness, irritability, and somatic and/or cognitive changes that impair functioning (American Psychiatric Association, 2013). Diagnoses that are considered depressive disorders are (a) disruptive mood dysregulation disorder, (b) major depressive disorder (including major depressive episode), (c) persistent depressive disorder (dysthymia), (d) premenstrual dysphoric disorder, (e) depressive disorder due to another medical condition, (f) other specified depressive disorder, and (g) unspecified depressive disorder (American Psychiatric Association, 2013). Participants in the current study had at least one of the former diagnoses, and/or an anxiety disorder, for a duration of at least one year.

Pain Management: An interdisciplinary branch of health care that aims to improve the quality of life for individuals with CP (Hardy, 1997).
Summary of the Introduction

More than 1.5 billion people worldwide suffer from CP (Global Industry Analysts, 2011). Depression and anxiety are highly co-morbid with CP (Castro & Daltro, 2009; Currie & Wang, 2005; Godfrey, 2007; Greenberg & Burns, 2003; Fishbain et al., 1997; McWilliams et al., 2003; Narita et al., 2006; Theunissen et al., 2012; Vowles et al., 2004). How the relationship between CP and mental health operates is not clear. How that relationship is experienced by individuals with CP is even less understood (Waxman et al., 2008). This study investigated how/if individuals with CBNP perceived the/a relationship between their physical pain and mental health. The current study sought to understand and analyze the lived experience of individuals with CBNP and depression and/or anxiety, as well as explored how participants perceived talking about CP and mental health distress. It is hoped that this study will aid in understanding the complicated relationship between CP and mental health.
CHAPTER II
LITERATURE REVIEW

Although the current researcher primarily investigated the experience of CBNP, the literature review is not restricted to localized areas of pain; instead CP is reviewed as one phenomenon. Research on multiple pain conditions are included because (a) most participant samples represent several different CP conditions (although back and neck pain are most represented within samples), (b) there is little evidence that different pain conditions discriminate in relation to mental health states (Perrin et al., 1993), (c) there is evidence that different pain conditions are associated with similar mood affects (Narita et al., 2006), and (d) a detailed understanding of the phenomenon requires information beyond localized pain sites. Individuals with CBNP were specifically chosen to participate in this study due to methodological and analytical considerations (see Chapter III).

As stated previously, researchers (Castro & Daltro, 2009; Currie & Wang, 2005; Fishbain et al., 1997; Godfrey, 2007; Greenberg & Burns, 2003; McWilliams et al., 2003; Narita et al., 2006; Theunissen et al., 2012; Vowles et al., 2004) have found a high co-morbidity rate between CP and mental health concerns, such as depression and anxiety. They have found direct and positive correlations between the co-occurring conditions (Castro & Daltro, 2009; Godfrey, 2007; Greenberg & Burns, 2003). In order to better conceptualize the relationship among CP, depression, and anxiety, a discussion of the literature on CP and mental health is presented in seven sections: (a) directionality or causality of the relationship; (b) depression; (c) anxiety; (d) depression and anxiety;
(e) affiliated variables; (f) gender, age, and racial differences of pain; and (g) qualitative research. In keeping with the focus of the study, qualitative investigations will be discussed separately because (a) there is a dearth of research in this area, and (b) the qualitative literature requires special considerations and discussion, as it relates to the present study.

**Conceptualization of CP and Mental Health: Directionality and Causality**

Two models of causality have emerged from the literature regarding the relationship between CP and mental health. The vulnerability model describes depression and anxiety as the cause of CP. The consequence model describes depression and anxiety as consequences of CP. The causal relationship of CP and mental health is an ongoing dispute.

Researchers (Currie & Wang, 2005; Ericsson et al., 2002; Lyons & Beilock, 2012; Martin, McGrath, Brown, & Katz, 2007a) have generated evidence for the vulnerability model. Currie and Wang (2005) conducted a longitudinal study investigating major depression as both an antecedent risk factor and consequence of chronic back pain in the general population. They surveyed 9,909 pain-free individuals with no history of back pain, assessed for depression utilizing *DSM-IV* (American Psychiatric Association, 2000) criteria, and followed up with participants 24 months later. Pain-free individuals diagnosed as depressed were almost three times more likely than non-depressed individuals to develop chronic back pain. The large sample size and the longitudinal design are particular strengths of this study. A limiting factor in this study was that causation was not established; however, the authors still concluded that depression may increase the risk of developing future CP (Currie & Wang, 2005).
Similarly, Lyons and Beilock (2012) investigated whether the anticipation of an anxiety-producing situation was associated with pain. Participants were 14 students at the University of Chicago who experienced anxiety related to completing mathematical tasks. Anxiety responses were measured by functional magnetic resonance imaging (fMRI). Lyons and Beilock found that simply anticipating a dreaded event (i.e., math) may elicit pain. They concluded that activation of the pain network may underlie the anticipation of anxiety. Results may also provide a potential neural mechanism to explain how mood states, such as anxiety, may precede pain. The precision fMRI measurement is a strength of this study; however, due to the low number of participants, the study needs to be replicated. In addition, results were related to math anxiety, and it is possible that results may not generalize to other types of anxiety.

In contrast, some researchers (Blackburn-Munro & Blackburn-Munro, 2001; Brown, 1990; Nagakura, Oe, Aoki, & Matsuoka, 2009) support the consequence model. Blackburn-Munro and Blackburn-Munro (2001) conducted an experiment with rats and demonstrated that animal models of CP are associated with activation of the hypothalamo-pituitary-adrenal axis (HPA). HPA activation suggests that CP acts as an inescapable stressor (Blackburn-Munro & Blackburn-Munro, 2001). Accordingly, the inescapable stress caused depressive-like symptoms in the rats (e.g., immobility, grooming cessation, changes in eating behavior). They concluded that CP-induced HPA dysfunction may contribute to depression in humans as well. The use of an experimental design is a strength of this study; however, although animal models have expanded the existing knowledge on CP, it should be noted that these results cannot necessarily be generalized to humans.
Nagakura et al. (2009) also utilized an animal model to investigate the relationship between depression and CP. Nagakura et al. created a fibromyalgia animal model by utilizing reserpine (an anti-psychotic drug). They administered 1 mg of reserpine, one time per day, for three consecutive days to cause a significant decrease in the muscle pressure threshold and thus pain. The pain was sustained for one week in both male and female rats. This treatment regimen decreased the amount of dopamine, norepinephrine, and 5-hydroxytryptamine in the spinal cord, thalamus, and prefrontal cortex, which created a pain signal in the rats. Nagakura et al. found that rats that were administered reserpine, as opposed to the control condition, displayed increased behaviors of depression (e.g., showed increased time in the forced swim test). Strengths of this study were the researchers’ experimental control and conscientious decisions to enhance validity. Nagakura et al. explained that the reserpine regimen demonstrated (a) a manifestation of CP and co-morbid symptoms (face-validity), (b) dysfunction of the central nervous system’s pain control (construct validity), and (c) similar responses to treatments used in human fibromyalgia patients (predictive validity).

Brown (1990) also investigated the relationship between CP and depression. Questionnaires were mailed to 243 patients diagnosed with rheumatoid arthritis, and data were collected at six different points. Measures used were the Pain Scale from the Arthritis Impact Measurement Scales (AIMS; Meenan, Gertman, & Mason, 1980), the Visual Analogue Scale of pain intensity (VAS pain; Downie et al., 1978) and the Center for Epidemiological Studies-Depression scale (CES-D; Randloff, 1977). A two-latent-variable, cross-lagged design, covariance structural modeling was conducted on self-report scores of pain and depression over 6-month intervals. Results supported a model
in which pain may precede, but not necessarily cause, depression. Strengths of this study include the researcher’s sample size, use of reliable and valid measures, and the longitudinal nature of data collection. A limitation of this study was the lack of theory utilized to guide hypotheses concerning the relationship between CP and depression, partly due to the unclear underlying mechanisms of the relationship.

Fishbain et al. (1997) conducted a literature review on 191 CP studies that covered 1966 to 1997, and concluded that there was significantly more support for the consequence model, as opposed to the vulnerability model. However, it should be noted that the consequence model has not been definitively proven. Due to ethical considerations, all causal models have been supported only with animal subjects. In conclusion, there is evidence for both the consequence and vulnerability models, although the consequence model is currently more convincing because researchers who have studied the consequence model tended to utilize stronger designs and methods. More research is needed on both the consequence and the vulnerability models in order to understand causation. Because both models are supported, perhaps the best contextual framework to understand the relationship between CP and mental health may be one that understands possible causation from both directions (Godfrey, 2007).

**Chronic Pain and Depression**

Depression, as defined by the *DSM-IV* and *DSM-5* (American Psychiatric Association, 2000, 2013), has a high co-morbidity rate with CP. Researchers (Alschuler, Theisen-Goodvich, Haig, & Geisser, 2008; Currie & Wang, 2005; Ericsson et al., 2002; Fishbain et al., 1997; McWilliams et. al., 2003; Tennen, Affleck, & Zautra, 2006) reported that depression is more common among persons with CP, as opposed to their
healthy counterparts. Alschuler et al. (2008) investigated the relationships between self-report of depressive symptoms, perceived disability, and physical performance, among 267 individuals with chronic back pain. They also examined whether the relationship between depression and functional activity was mediated by physical movement or effort (as measured by heart rate). Other measures used were the CES-D (Randlof, 1977), the Quebec Back Pain Disability Scale (QBPDS; Kopec et al., 1995), and the Progressive Isoinertial Lifting Evaluation (PILE; Mayer, 1987). Results indicated that self-reported depressive symptoms were associated with self-reported disability and physical performance due to pain. Regression analyses revealed that depression assessed by the CES-D contributed to the prediction of back pain, as measured by QBPDS and PILE performance (after controlling for age, gender, and pain intensity). Also, physical effort partially mediated the relationship between depression and physical performance. The results highlighted the importance of depression in the experience of chronic back pain (Alschuler et al., 2008). Strengths of this study included sufficient sample size; use of reliable and valid measures; appropriate data analysis; control for age, gender, and pain intensity; and detailed descriptions of all procedures and decisions made. A limitation of this study is that causal inferences cannot be made.

Similarly, Ericsson and colleagues (2002) evaluated the usefulness of depression in predicting disability status in 184 pain patients at a rehabilitation hospital in Southern Sweden. The participants had a mean of 132 sick-leave days prior to the baseline evaluation. Measures used were the Structured Clinical Interview for DSM-IV Screen Questionnaire (Spitzer, Williams, Gibbon, & First, 1990), the Montgomery-Åsberg Depression Rating Scale (Montgomery & Åsberg, 1979) and the Karolinska Scales of
Personality (Schalling, 1977). Disability status was assessed by review of insurance records. Researchers conducted a multivariate logistic regression and reported that a baseline diagnosis of depression predicted pain-related disability status. Ericsson et al. (2002) concluded that depression is an important predictor of CP disability. Strengths of this study were sample size, use of reliable and valid measures, and two-year follow-up with participants. In addition, their sample included participants from a broad range of socioeconomic statuses and multiple pain conditions. Limitations of this study are that (a) all participants were volunteers and not selected randomly, and (b) only the direct influence of sick-leave days on disability were entered into the model. The number of sick-leave days prior to their evaluation may have impacted participants’ depression.

Tennen and colleagues (2006) uncovered an unusual finding: Individuals’ past history of depression alone may increase perception of pain. They examined if a previous episode of depression was related to daily pain, or reactions to pain, among 71 individuals with fibromyalgia. Each participant rated pain and mood, three times per day, for 30 days. Multivariate multilevel regression models revealed that after controlling for neuroticism and current depressive symptoms, formerly depressed and never-depressed individuals differed on many variables. Participants who had not previously experienced depression were more likely to believe that they could engage in coping strategies (e.g., relaxation techniques) and manage pain. Previously depressed participants, who also reported more current depressive symptoms, showed a greater decline in pleasant mood on more painful days than did formerly depressed participants who were experiencing fewer current depressive symptoms. These findings illustrate how a history of depression may affect perception of and coping with pain (Tennen et al., 2006).
A strength of this study was that the researchers made repeated daily assessments and were able to examine within-person associations between changes in pain and responses to those changes. This daily process design and analytic strategies allowed researchers to examine coping efforts as they were occurring, which reduced retrospection bias. Another strength was the control of neuroticism and current depressive symptoms. Limitations of this study include the inability to tease out whether the coping and mood deficits of the previously depressed participants were due to preexisting depressive characteristics specifically, as there may be other confounding variables.

**Chronic Pain and Anxiety**

Anxiety disorders, as defined by the *DSM-IV* and *DSM-5* (American Psychiatric Association, 2000, 2013), also have high co-morbidity rates with CP. McWilliams et al. (2003) even recommended that assessment and treatment of anxiety, in individuals with CP, should not only be encouraged, but required due to its high co-morbidity. Nartita et al. (2006) conducted laboratory experiments with mice to investigate whether CP could induce anxiety effects and changes in the opioidergic function of the amygdala in mice. They created a neuropathic pain model by tying a knot around the sciatic nerve of mice in the experimental condition. They created a chronic inflammatory pain model by unilateral intraplantar injection of complete Freund’s adjuvant (CFA; *Mycobacterium tuberculosis*) and injected the control group with a saline solution (Narita et al., 2006). To measure anxiety-like responses, mice were tested using the light-dark test and the elevated plus-maze test. Both the inflammatory and neuropathic pain state led to an anxiety effect that even persisted for four weeks after the injection or surgery. The increased sensitivity to pain, induced by the sciatic nerve tie, was reversed at eight weeks
after surgery. At the eight-week point, the time that the mice spent in the lit compartment of the light-dark test did not change.

Regarding effects in the opioidergic function of the amygdala, they found that certain receptors’ binding to the amygdala membranes decreased by either the injection, or the sciatic nerve tie, as compared to controls. They also found that certain opioid receptor agonists were increased in mice that had the injection but not in mice that underwent the nerve tie, indicating that different brain mechanisms may affect neuropathic and inflammatory pain. The results of this study indicated that pain in mice elicits a brain response similar to an anxiety reaction; pain influences physiological changes in opioid transmission. Narita et al. (2006) concluded that pain and anxiety are closely connected. The strength of this study is the use of experimental design. A limitation of this design is restricted generalizability to humans.

In humans, anxiety has also been shown to predict cognitive and affective aspects of CP (Vowles et al., 2004). Vowles and colleagues (2004) evaluated the relation of particular aspects of pain-related anxiety to characteristics of CP distress in a sample of 76 individuals with low-back pain. Measures used were the Pain Anxiety Symptom Scale (PASS; McCracken, Zayfert, & Gross, 1992), the West Haven-Yale Multidimensional Pain Inventory (WHYMPI; Kerns, Turk, & Rudy, 1985), the McGill Pain Questionnaire-Short Form (MPQ-SF; Melzack, 1975), and the Lumbar Range of Motion (Waddell, Somerville, Henderson, & Newton, 1992). They found that the cognitive subscale of the PASS predicted cognitive-affective aspects of chronic low-back pain, including (a) affective distress, (b) perceived lack of control, and (c) pain severity. They also found that the escape avoidance subscale of the PASS predicted behavioral
interference in life activities. A strength of this study is the extension of the fear-avoidance model of CP. The limitations include the inability to make causal conclusions and the possibility that the observed findings were, in part, due to shared method variance, as the psychological variables were assessed with the same type of methodology (Vowles et al., 2004).

In addition, Edwards, Augustson, and Fillingim (2003) reported that in a sample of 74 individuals with CP, higher baseline anxiety was positively correlated with higher pretreatment pain and less posttreatment improvement, as compared to individuals with CP and lower baseline anxiety. Furthermore, anxiety has been related to poor physical health and has been shown to moderate the relationship between pain and functioning (McCracken, Gross, & Eccleston, 2002). Changes in anxiety may even be more important to assess than physical capacity when determining the effectiveness of pain-related therapy (McCracken et al., 2002). In conclusion, it may be beneficial to include an assessment of anxiety within outcome batteries that are used to assess individuals’ progress. For example, a reduction in anxiety may be just as beneficial as increased range of motion (McCracken et al., 2002).

Chronic Pain and Depression and Anxiety

Many researchers (Ahman & Stalnacke, 2008; Bair et al., 2003; Castro & Daltro, 2009; Ericsson et al., 2002; Godfrey, 2007; Gormsen, Rosenberg, Bach, & Jensen, 2010; Greenberg & Burns, 2003; Kinder, Curtiss, & Kalichman, 1986; Monsen et al., 2002) have found a clear relationship between CP and both depression and anxiety (in combination). In one examination of over 530 CP patients, Bair et al. (2008) demonstrated that pain-inflicted participants reported higher anxiety and depression than
those in a control group. Similarly, multiple researchers (Ahman & Stalnacke, 2008; Bair et al., 2008; Gormsen et al., 2010) have found that pain intensity is significantly and directly correlated ($r = .89$; Gormsen et al., 2010) with anxious and depressed participants. However, not all research has supported these conclusions.

Other researchers contend that the relationship between both anxiety and depression and CP may not be so straightforward. Angst, Verra, Lehmann, Aeschlimann, and Angst (2008) investigated the relationship among CP, depression, and anxiety and did not find significant correlations between the variables ($r = .27$ to .29 bivariate; .30 partial). Okifuji (1995) ran a path analysis on the variables of pain, depression, and anxiety and found that the direct effect of pain on depression was minimal; however, pain was found to affect depression through quality of life, which will be discussed in the next section.

Dickens, McGowan, and Dale (2003) conducted a systematic review and meta-analysis of the impact of depression on the perception of pain. They identified six studies that compared the psychophysical responses to experimental pain stimuli of depressed participants with that of healthy controls. Positive effect sizes indicated higher pain thresholds in depressed groups. Dickens and colleagues analyzed four studies together, followed by the remaining two, due to heterogeneity of samples. They found that pain perception threshold was higher in depressed subjects of both groups of studies (four studies, $d = 0.38$, $p = .001$; two studies, $d = 0.68$, $p = .002$). Dickens et al. reported that depressed subjects were less likely to perceive a sensory stimulus as being painful compared with nondepressed controls and that “the influence of depression on attention to the pain stimulus may account for this effect” (p. 369).
In addition, genetic predispositions of individuals with CP have been offered as an alternative theory of predicting for the presence of depression. This theory has received some empirical support (France, Krishman, & Trainor, 1986; Schaffer, Donlon, & Bittle, 1980). Many underlying mechanisms appear to be operating in this complex and multifaceted relationship.

**Variables That Affect the Relationship Between CP and Depression and Anxiety**

A search of the words *chronic* and *pain*, conducted utilizing the psychINFO database, yielded 315 CP research articles. Six variables were repeatedly studied: (a) self-efficacy for managing pain, (b) anxiety sensitivity, (c) health anxiety, (d) interpersonal attachment/social support, (e) disability, and (f) poor quality of life. The following is a review of the studies, in which researchers directly addressed those six variables.

**Self-Efficacy**

Self-efficacy (SE) for managing pain refers to the confidence one has related to coping with pain and in the ability to maintain meaningful life activities, despite the pain and pain-associated negative psychological effects (Arnstein, Caudill, Mandle, Norris, & Beasley, 1999). SE impacts outcomes for individuals with CP. McGuigan (2008) investigated the role of SE in 68 participants with chronic low-back pain and found that pain SE mediated the relationship between pain severity and depression. Measures utilized were the Pain Self-Efficacy Questionnaire (PSEQ; Nicholas, 2007), the Beck Depression Inventory (BDI; Beck & Steer, 1984), and the Coping Strategies Questionnaire (CSQ; Rosenstiel & Keefe, 1983). Pain severity was significantly and negatively correlated with pain SE \( r = -.54, p < .001 \); as SE increased, reported pain
intensity decreased. Pain SE was also significantly and negatively correlated with depression \((r = -0.70, p < 0.001)\); as pain SE increased, reported depression decreased.

Accordingly, pain severity was significantly and positively correlated with depression \((r = 0.39, p < 0.001; \text{McGuigan, 2008})\); as pain severity increased, depression increased. The results of the multiple regression analysis demonstrated that depression predicted pain severity \((\Delta R^2 = 0.15, F(1, 66) = 11.83, p = 0.001)\), explaining 15.2% of the variation. Pain SE was added to the model and was significant \((\Delta R^2 = 0.34, F(2, 65) = 31.18, p < 0.001)\), explaining an additional 33.8% of variance. The relationship between pain severity and depression became non-significant when pain SE was entered in the second block of the regression, providing support for the mediation model. The standardized beta weight went from \(\beta = 0.39, p = 0.001\) (significant) to \(\beta = 0.0018, p = 0.87\) (non-significant; McGuigan, 2008). Strengths of the study are adequate sample size, use of appropriate analysis, and detailed reporting of results. Limitations of this study include a predominantly white sample, the inherent restrictions of correlational design, and that the CSQ subscale, for this particular sample, had questionable reliability \((r = 0.67; \text{McGuigan, 2008})\).

Similarly, Shelby et al. (2008) examined whether SE mediated the relationship between pain catastrophizing, pain, and disability in 192 individuals diagnosed with osteoarthritis. Measures used were the Arthritis Self-Efficacy Scale (ASES; Lorig, Chastain, Ung, Shoor, & Holman, 1989), the CSQ (Rosenstiel & Keefe, 1983), and the AIMS (Meenan et al., 1980). High pain catastrophizing was negatively associated with low SE \((r = -0.51, p < 0.05)\). SE for pain control fully mediated the relationship between pain catastrophizing and perception of pain \((\beta = 0.08, \text{Sobel test } Z = 1.97, p < 0.05)\). The
relationship between pain catastrophizing and physical disability was fully mediated by SE for physical function ($\beta = .06$, Sobel test $Z = 1.95$, $p = .05$). SE for emotional symptoms partially mediated the relationship between pain catastrophizing and psychological disability ($\beta = .12$, Sobel test $Z = 2.92$, $p < .05$; Shelby et. al., 2008). Strengths of this study include the implications for the temporal sequences of treatment, use of reliable and valid measures, and the detailed information reported regarding the participants’ demographics and the procedure. Limitations include the use of a correlational design, the possibility that the number of statistical tests conducted may have inflated type one error, and the possibility of self-selection bias in sampling procedures.

In addition, Turner, Ersek, and Kemp (2005) investigated the relationship of SE for managing pain and reported pain intensity, pain-related disability, depressive symptoms, and coping strategy use among 140 retirement community residents with CP. Sites of pain were reported to be the head (7%), neck (22%), back (63%), shoulder (48%), arm or hand (38%), buttock or hip (56%), abdomen (7%), leg or foot (73%), and chest (7%). Measures used were the ASES (Lorig et al., 1989), the Roland-Morris Disability Questionnaire (Roland & Morris, 1983), and the Geriatric Depression Scale (Yesavage et al., 1983). After controlling for age, gender, and pain intensity, SE was negatively correlated with pain-related disability ($r = -.78$, $p < .001$) and depressive symptoms ($r = -.38$, $p < .001$); as SE increased, disability and depression decreased. A strength of this study is that Turner et al. were the first to examine SE with pain, disability, depression, and coping among retirement community residents with CP. In addition, they controlled for age and gender, and utilized reliable and valid measures.
Limitations of this study are sample self-selection bias, poor generalizability, a mostly white sample, and the limits inherent to correlational design.

**Anxiety Sensitivity and Health Anxiety**

Anxiety sensitivity (AS) and health anxiety (HA) are also variables related to CP. HA refers to an excessive worry or fear, which stems from beliefs that one’s health is threatened (Greenberg & Burns, 2003). AS is a similar fear; however, AS is specifically a result of anxiety-related sensations (e.g., increased heart rate, shortness of breath; Zvolensky, Goodie, McNeil, Sperry, & Sorrell, 2001). There has been empirical support that higher levels of HA and AS affects perception and management of pain (Greenberg & Burns, 2003; Zvolensky et al., 2001).

Zvolensky et al. (2001) evaluated AS as a predictor of pain-related fear and anxiety in 58 individuals with CP. The primary site of pain of the participants was lower back, 52.5% (n = 35); lower limbs, 13.2% (n = 35); cervical region, 11.8% (n = 8); upper shoulder and upper limbs, 7.4% (n = 5); abdominal region, 7.4% (n = 5); and thoracic region, 5.9% (n = 4). Global AS was measured by the Anxiety Sensitivity Index (ASI: Reiss, Peterson, Gursky, & McNally, 1986), and pain perception was measured by the PASS (McCracken et al., 1992). ASI total scores predicted fear of and anxiety about pain ($r = .72$; Zvolensky et al., 2001). A strength of this study is the extension of the prior conceptualization that catastrophized psychological concerns may contribute to avoidance of pain-related events and activities, thus producing disability, behavioral, and health problems (e.g., weight gain). Also, a strength of this study is the provided support for the discriminant validity of the construct (AS), as compared to fear and generalized
anxiety. Furthermore, reliable and valid measures were used. Limitations include the
correlational design and a sample that consisted mostly of white participants.

Similarly, HA has been shown to have important effects for individuals with
chronic musculoskeletal pain, particularly in terms of safety-seeking behavior (Greenberg
& Burns, 2003). Seventy participants with chronic musculoskeletal pain and high levels
of HA tended to exercise excessive amounts of caution in all behavior (Greenberg &
Burns, 2003). This increased caution may be associated with decreased functioning,
increased life dissatisfaction, and increased negative affect (Tang et al., 2007). Tang
et al. (2007) examined the effects of HA on the use of safety-seeking behaviors (SSBs) in
situations that provoked pain in three groups: (a) 20 participants who suffered from
chronic low-back pain and had high health anxiety, (b) 20 participants who suffered from
chronic low-back pain and had low health anxiety, and (c) 20 participants who were pain
free (the control group). Two physical tasks were video-recorded and analyzed for overt
behavior indicative of pain and for the occurrence of SSBs. Other measures used were
the Short Health Anxiety Inventory (SHAI; Salkovskis, Rimes, Warwick, & Clark, 2002),
the MPQ-SF (Melzack, 1975), the Hospital Anxiety and Depression Scale (HADS;
Zigmond & Snaith, 1983), and the Catastrophising in Pain Scale (CIPS; Rode et al.,
2006). In addition, participants completed a pain, mood, thought, and safety-behavior
record.

The high HA pain group showed a greater number of SSBs than did the low HA
pain and control group ($p < .001$). Tang et al. (2007) concluded that SSB is distinct from
overt pain behavior and may be important to address when working with individuals who
have CP and HA. Strengths of this study are the use of objective measures (e.g.,
performance tasks, video-recording), a variety of assessment measures, and the use of a control group. This was also the first study conducted that investigated CP from the perspective of SSB (Tang et al., 2007). Limitations include the inherent restrictions of the laboratory setting and issues of reactivity.

**Interpersonal Relationships and Social Support**

One of the most well-established variables investigated in relation to CP, depression, and anxiety is quality of interpersonal dynamics. Monsen et al. (2002) investigated interpersonal problems, relationship satisfaction, partner responses, family dynamics, social support, and care giving in relation to pain and mood in 88 patients with musculoskeletal pain. Measures used were the Inventory of Interpersonal Problems Circumplex Scales (IIP-C; Horowitz, Alden, & Wiggins, 2000), the VAS (Downie et al., 1978) to measure pain, and the Symptom Checklist-90-Revised to measure anxiety and depression (SCL-90-R; Derogatis, 1992). Interpersonal problems, such as poor communication, lack of a support system, and frequent arguments, were associated with higher degrees of pain (Monsen et al., 2002). As improvement occurred in interpersonal problems, participants’ pain levels decreased (Monsen et al., 2002). Strengths of this study included the 14-month follow-up with participants, use of analyses that reduced the effects of regression toward the mean, and reliable and valid measures. Limitations included the possibility that there are other explanations for the results due to long observation periods and infrequent measurements (e.g., re-moralization effect, initial values of the participants), the high-functioning nature of all participants (e.g., full-time employment), lack of a control group, and a small sample size.
Similarly, Waxman et al. (2008) examined the impact of the psychosocial environment in predicting relationship satisfaction among 54 individuals with chronic low-back pain. Measures used were the Multidimensional Pain Inventory- Part II (MPI; Kerns et al., 1985), the MPQ-SF (Melzack, 1975), the CES-D (Randloff, 1977), the CIPS (Rode et al., 2006), the Tampa Scale of Kinesiophobia (TSK; Kori, Miller, & Todd, 1990), and the Dyadic Adjustment Scale (DAS; Spanier, 1976). Waxman et al. found that chronic low-back pain was related to poor relationship satisfaction and negative partner responses. An example of a partner response would be the way partners/significant others responded to a participants’ expression of pain (Waxman et al., 2008). Strengths of this study are the use of a mediation model and the use of multiple reliable/valid assessments. A limitation of this study was self-selection bias. Given these findings, a lack of support from family members and friends seem to be associated with poorer management of pain. It has been found that simply implementing family encouragement is enough to increase management of pain (Bair et al., 2009; Lee, Chan, & Berven, 2007).

Although the qualitative literature will be discussed in detail separately, it is important to briefly address some specific interpersonal struggles that were illuminated through a phenomenological inquiry with CP individuals. Researchers (Briscoe, 2000; Gudmannsdottir & Halldorsdottir, 2009; Lavie-Ajayi et al., 2012; Snelgrove & Lossi, 2009) have found that most individuals with CP do not feel heard or understood by others, specifically by those who do not experience CP. Briscoe (2000) reported that invisibility to others was one of the first things individuals with CP discussed in her phenomenological investigation on coping with CP. Participants explained that pain is
not something others can see and cannot be known by others unless there is communication regarding the pain, which may be labeled by others as complaining (Briscoe, 2000). One participant stated, “I know that people can’t see the pain that I’m in. When I ask for help, they look at me like what’s wrong with you” (Briscoe, 2000, p. 75). Participants also reported feelings of embarrassment related to the invisibility of CP. For example, one participant stated, “I said, ‘look at me, can you tell that there is anything wrong with me?’ She said ‘no.’ I said ‘right, you would not know it unless you knew me so don’t judge’” (Briscoe, 2000, p. 75).

Participants also reported specifically feeling invisible to doctors, explaining that their pain is also invisible medically. One participant stated,

If you have something that isn’t run of the mill, if there aren’t a hundred units, of this kind of either injury or disease, then the doctor is going to become rather frustrated with his diagnoses and inadvertently, you become the object of his frustration. (Briscoe, 2000, p. 76)

Another participant explained,

You’re hoping that that person is going to tell you what it is because you know that you’re not crazy . . . but they try to convince you that it ain’t happening. Yeah, and that is the worse part and I think everybody that I have spoke to in the group and stuff, all have experienced it with the doctor. And it’s all because it was chronic pain. (Briscoe, 2000, p. 76)

Essentially, invisibility of a pain condition may lead to others viewing (or the perception that others are viewing) the individual with CP as lazy, weird, malingering, or crazy.

Gudmannsdottir and Halldorsdottir (2009) reported that individuals with CP are silenced. They explained that individuals with CP have to rely on others to believe them, and report fear of being met with a negative attitude, lack of trust, or ambivalence. A theme that emerged in Gudmannsdottir and Halldorsdottir’s phenomenological study was that individuals with CP did not want to be thought of as playing the victim role, but felt
stuck because they genuinely needed to communicate the state of their physical health. For example, one participant did not communicate with doctors/nurses about his pain, and thus did not receive any medication for the CP in his knees. The participant stated that he kept quiet because he did not think his doctor would want to hear about his pain again. In summary, multiple everyday interactions often become complicated and problematic for individuals with chronic pain.

**Disability**

Disability is the degree to which pain and mood afflictions result in decreased functioning. Disability, related to pain, may include the inability to rock climb or sky dive to losing the ability to move all together (Walters & Williamson, 1999). When considering CP and mood, disability seems to be an individual experience, an inner struggle trying to rectify the contrast between the levels of functioning desired or previously had and current decreased functioning. Disability, as measured by work absenteeism, is one of the strongest predictors of depression and anxiety in CP patients (Bair et al., 2003). Accordingly, co-morbid pain and mental health are considered to influence disability in the work force (Munce, Stansfeld, Blackmore, & Stewart, 2007).

Munce and colleagues (2007) investigated absenteeism in a sample of nearly one million individuals and found that 19% of absent individuals were depressed, as opposed to 7.9% of absent individuals who were not. Stewart, Ricci, and Morganstein (2003) surveyed 28,902 working adults and found that over half (52.7%) not only experienced some form of CP, but lost productive work time due to pain. Overall, workers lost an average of 4.6 hours per week of productive work time due to pain. Stewart and colleagues estimated that the monetary productivity loss due to pain is approximately
$6.2 billion per year. They estimated that 76.6% of the pain-related productivity loss is due to reduced work performance, while 23.4% is due to absenteeism (Stewart et al., 2003). A strength of this study is the large sample size. Limitations of this study consist of the restrictions inherent in survey methodology.

Disability also manifests as disruptions in social and physical functioning (Cohen, Vowles, & Eccleston, 2010). Cohen et al. (2010) evaluated pain, anxiety, and disability in 222 adolescents with CP. Participants reported pain in all body parts (43.1%), a limb (37.3%), the back (7.7%), the head (4.8%), the abdomen (4.3%), the hip (1%), or chest (.5%). Most patients (72.1%) had non-inflammatory pain (e.g., low-back pain) with a minority (27.9%) having inflammatory pain (e.g., arthritis). Measures used were the VAS (Downie et al., 1978), Spence Children’s Anxiety Scale (SCAS; Spence, 1998), and, as a measure of disability, the Bath Adolescent Pain Questionnaire (BAOQ; Eccleston et al., 2005). Cohen et al. (2010) found that pain was related to disability across measures of social functioning ($r = .43 \ p < .001$), school attendance ($r = -.53, \ p < .001$), and physician visits ($r = .46, \ p < .001$). They also found that anxiety moderated the relationship between pain and functioning. Strengths of this study were controlling for age, gender, and pain type, the use of reliable and valid measures, and specifically addressing pain in adolescents. Limitations are that causal inferences cannot be made and that the sample consisted of almost all (99%) white participants.

**Quality of Life**

Research on the variables reviewed seems to suggest one overarching premise: Individuals who are co-morbid with CP, depression, and anxiety tend to have associated poorer quality of life, compared to pain-free counterparts. Specifically, poor quality of
life appears to be associated with CP individuals who have low pain self-efficacy, poor interpersonal relationships, high anxiety sensitivity, high health anxiety, and disability. Poor quality of life may lead to many negative outcomes, such as heart disease (Pedersen, Martens, Denollet, & Appels, 2007), sleep disturbance (Mystakidou et al., 2007), fatigue (Lou, Reeves, Benice, & Sexton, 2003), obesity (Carpiniello et al., 2009), poor self-image (Potocka, Turczyn-Jabłońska, & Kieć-Świerczyńska, 2008), sexual dysfunction (Santosa et al., 2011), infertility (Chachamovich et al., 2010), and increased symptoms of mental illness (Hirschberg, 2006). Because the consequences of poor quality of life are adverse, quality of life is important to assess in individuals with chronic physical pain and mental health distress. Researchers often base much of their rationale to study CP, depression, and anxiety on poor quality of life factors (Bair et al., 2008; Waxman et al., 2008).

**Gender, Age, and Racial Differences in Pain**

There has been some evidence (Elklit & Jones, 2006; Green, Ndao-Brumblay, Nagrant, Baker, & Rothman, 2004; Martin, McGrath, Brown, & Katz, 2007b; Rustøen et al., 2004) that CP is experienced differently across genders, ages, and races. Green and colleagues (2004) examined experiences of adult African American and white individuals with multiple CP conditions. They found that African American participants reported higher disability than their white counterparts ($p < .05$). They also found that older (ages 60 and above) participants and women, compared to younger participants and men, reported a lower level of perceived pain and depression ($p < .05$). Despite similar physical, emotional, and pain experiences, Green and colleagues found support that CP is experienced differently across genders, ages, and races. Strengths of this study include...
(a) the use of well-validated measures of pain intensity, depression, and disability; and (b) informed pain classification procedures/appropriate research design. Limitations of this study are (a) use of retrospective data, (b) possible confounds due to many different pain etiologies, (c) use of self-report, (d) selection bias, (e) the small number of African American participants compared to whites, and (f) the lack of reporting exact p values obtained.

Elklit and Jones (2006) suggested that anxiety is related more strongly to chronic pain in men compared to women. They examined gender-specific associations between anxiety and chronic pain experiences, via a battery of questionnaires. Participants were 1,349 individuals (989 women and 360 men) who experienced whiplash. Elklit and Jones found that anxiety was more positively related to the level of pain-related disability in men ($r = .40$) compared to women ($r = .24; p < .001$). Men were also more likely to have anxiety associated with pain frequency ($r = .33$) and pain interference ($r = .38$), as opposed to women ($r = .26$ and .33; $p < .001$). Elklit and Jones suggested that anxiety is an important factor in understanding gender differences among individuals with CP and disability.

Rustøen et al. (2004) investigated gender differences in the experience and impact of multiple CP conditions among individuals. Surveys were mailed to 4,000 Norwegian citizens and 1,912 were returned, out of which 24.4% reported CP. Rustøen and colleagues found that, in general, significantly more women (27.6%) than men (23.3%) reported experiencing chronic pain ($X^2 = 5.51, F = 0.0019$), and women reported higher pain intensity scores than men did. Although the duration of CP was similar in men and women, women more often received treatment for CP ($p = .001$). Rustøen et al. also
found that women reported significantly higher scores on measures of quality of life ($M = 80.4$, $SD = 12.9$) than men did ($M = 77.8$, $SD = 13.4$; $F(1,452) = 4.4$, $P = .036$). Gender differences were not found in age, educational level, employment status, or causes of pain, with the exception that more men reported surgery as a cause. These findings support gender differences among individuals with CP. These researchers were the first to evaluate gender differences of quality of life in a sample of individuals with CP. Limitations of this study include (a) the poor response rate, (b) overrepresentation of women and older participants in the sample, and (c) the use of self-report data.

Martin et al. (2007b) examined long-term pain and disability outcomes in 95 females and 48 males (ages 5 to 23) with CP. They followed-up with participants three years after their last appointment at a pain clinic in Toronto, Canada. Sixty-two percent (67 females and 22 males) of participants reported continuing pain after the three-year period. Martin and colleagues found that females were significantly more likely than males to report continuing pain ($OR = 2.9$, $95\% CI = 1.4$–5.8, $p = .005$), use of health care ($OR = 5.1$, $95\% CI = 1.4$–18.5, $p = .001$), medication ($OR = 4.7$, $95\% CI = 1.3$–16.9, $p = .02$) and non-drug methods of pain control ($OR = 3.4$, $95\% CI = 1.3$–9.2, $p = .02$). (p. 13)

Similarly, out of all the participants who reported psychosocial factors associated with pain at their last visit to the pain clinic, females (76.4%) were more likely than males (21.4%) to report continuing pain ($OR = 13.8$, $95\% CI = 3.3$–58.4, $p = .005$). In regard to age, the frequency of pain episodes increased significantly as age increased ($OR = 1.3$, $95\% CI = 1.0$–1.5, $p = .02$; Martin et al., 2007b). Martin et al. suggested that females may be at higher risk for continuing pain, greater use of health care, and greater use of pain control methods. The strengths of this study are the longitudinal design and the
above-average response rate of 79.6%. Limitations of this study are the use of parent interviews for participants 5 to 15 years old, the post-hoc nature of the classification psychosocial factors, and the small number of male participants relative to female participants.

In contrast, some researchers (Carey et al., 2010; Hairi, Cumming, Blyth, & Naganathan, 2013; Kaczynski, Claar, & Logan, 2009; Kimble et al., 2003) have not found support for significant differences between genders, ages, and races. Carey et al. (2010) conducted and analyzed a statewide survey of North Carolinians with chronic back and neck pain to determine whether prevalence and treatment/care-seeking behavior varied by race. Participants consisted of 183 black, 34 Latino, and 620 white individuals. Carey and colleagues reported that whites and blacks had similar rates of CBNP. Prevalence was lower in Latinos, likely due to the overrepresentation of youth in the Latino sample. Carey et al. reported that care-seeking behavior (83% white, 85% black, 72% Latino) and use of pain medications (49% white, 52% black, 35% Latino) were similar between races. Overall, few disparities were found, and Carey and colleagues reported that CP issues may affect racial groups similarly. Strengths of this study are that respondents self-identified race and ethnicity, that North Carolina’s population is generalizable to diverse states, and the use of specific and consistent definitions of constructs. Limitations are the use of self-report data and vague measures of pain severity, as well as an overall lack of careful consideration regarding the influence of pain severity.

Kimble et al. (2003) examined gender differences in 128 individuals (30.5% female; 69.5% male) with CP due to stable angina and coronary heart disease, utilizing
the SF-MPQ (Melzack, 1975). Kimble and colleagues were interested in the relationships among pain characteristics and perceived limitations in physical activity among men and woman. Significant gender differences were not found in sensory or affective pain intensity scores, or in overall pain intensity (Kimble et al., 2003). More similarities than differences were found between the characteristics of chest pain between men and woman. Despite these similarities, women reported greater physical limitation related to pain (Kimble et al., 2003). Strengths of the study include adequate power, appropriate design, and the use of reliable and valid instruments. Limitations of the study are the lack of a standardized definition for what qualifies as an angina episode, that severity of the disease was not assessed, that important psychosocial variables (e.g., anxiety, depression, stress) were not assessed, and that the sample consisted of more men (69.5%) than women.

Kaczynski et al. (2009) evaluated gender as a moderator of the relationship between psychosocial variables and disability in 266 children and adolescents (177 girls and 89 boys) with chronic headache or abdominal pain. Participants completed measures of pain intensity, anxiety, depression, coping, and disability. Parents completed a measure of protective behavior (Kaczynski et al., 2009). No significant differences among any of the psychosocial, disability, and parental variables were found, with the exception that girls were more likely to endorse depressive symptoms, which was associated with disability in girls. Overall, this study suggests that coping, protective parenting, and disability may play out similarly for girls and boys with CP. Strengths of this study include the adherence to the biospsychosocial model, adequate sample size, use of reliable and valid measures, detailed reporting of procedures, and the contribution to
the literature on CP, specifically in children. Limitations of this study include the inherent restrictions of cross-sectional design, self-report, and the possibility of confounding variables (e.g., pain condition as a moderator, perceived social competence).

**Disability and Cultural Factors**

It appears that ethnic and racial differences, related to CP, may be small when groups are closely matched on confounding variables (Edwards, Moric, Husfeldt, Buvanendran, & Ivankovich, 2005); however, these confounding variables (e.g., socioeconomic status, education, oppression, etc.) cannot be ignored, as pain does not occur in isolation from context. Ndao-Brumblay and Green (2005) examined the relationship among race and pain severity, depression, disability, and affective distress in 1,088 white and 104 black adult women with CP. After controlling for confounding variables, a relationship between race and pain severity or race and affective distress was not found (Ndao-Brumblay & Green, 2005). However, black women experienced more physical disability than their white counterparts ($\beta = 4.622; p < 0.005$). Ndao-Brumblay and Green also found that disability mediated the relationship between race and depression; black women were more vulnerable to depression due to higher disability.

Strengths of this study include the use of reliable and valid measures, appropriate methodology, detailed reporting of descriptive statistics, and the use of theory to inform the investigation. Limitations of this study include the possibility of multiple additional explanatory factors, the inherent limitations to a retrospective observational study, the sample was limited to a clinical population that had access to a tertiary care pain center, the high sample size of white individuals compared to black individuals, and the fact that authors were not forthcoming with limitations.
McCracken, Matthews, Tang, and Cuba (2001) compared 57 black and 207 white individuals on adjustment to CP. Participants completed measures of anxiety, depression, disability, pain, and physical symptoms during their initial visit to a university pain management center. McCracken et al. (2001) found that the groups did not differ due to age, gender, education, chronicity of pain, site of pain, work status, previous surgeries, medical diagnosis, medication, income, or involvement in litigation ($p > .05$).

However, the black group reported higher pain severity ($t [260] = 3.08; p < .001$), more avoidance of activity, more fearful thinking ($t [258] = 2.61; p < .001$), more physical symptoms ($t [256] = 2.4; p < .05$), and greater physical ($t [260] = 2.57; p < .05$) and psychosocial disability ($t [259] = 2.49; p < 0.05$). (McCracken et al., 2001, p. 249)

These differences persisted after pain severity was controlled for, but not after disability was controlled for. Thus, race may influence the experience of CP through general disability and underlying cultural factors.

In summary, there is little research on how gender, age, and race affect individuals’ experiences with CP, and the existing literature portrays mixed results. Furthermore, most of the research in this area has been conducted with black and white individuals and does not represent other populations. Overall, it appears that more woman experience (or report experiencing) CP (Martin et al., 2007b; Ndao-Brumblay & Green, 2005; Rustøen et al., 2004). Also, it is likely that gender, age, and race affect the experience of CP through a multitude of complex contextual and cultural factors, particularly in relation to reported levels of disability. It appears that experiences of CP affect humans similarly, until cultural factors (e.g., oppression) are taken into account (Edwards et al., 2005; McCracken et al., 2001; Ndao-Brumblay & Green, 2005). For example, oppression may reduce the protective factors of the oppressed, which, in turn,
may increase negative experiences (including CP) by default. All previously reviewed literature was quantitative. It is important to review the qualitative research on CP, depression, and anxiety due to the subjective nature of physical pain and mental health, as well as to illuminate a gap in the literature.

**Review of the Qualitative Research on Chronic Pain**

In lieu of reviewing strengths and limitations of each research study, a general discussion of strengths and limitations inherent to qualitative methodology will precede review of the qualitative literature on CP. Also, because there is a paucity of qualitative research that investigates CP and mental health, the literature review will consist of any qualitative study related to the experience of CP in general, as opposed to chronic pain and specific mental health constructs. Strengths of qualitative methodology include the researcher’s ability to (a) obtain data based on participants’ meaning; (b) obtain detailed/in-depth accounts (which is especially useful to understand complex relationships); (c) provide the emic or insider’s view; (d) describe the richness of a phenomenon as it is naturally embedded in context; (e) study dynamic processes; (f) generate tentative theories; (g) determine how actual participants define constructs, as opposed to assuming standard meaning; (h) be responsive to changes that occur during the study and be flexible to shift the focus of the study if necessary; and (i) uncover vivid descriptions or demonstrations of phenomenon as it is experienced in the world (Heppner, Wampold, & Kivlighan, 2008). Inherent limitations include (a) low generalizability, (b) difficulty in making quantitative predictions, (c) difficulty in testing hypotheses with large samples, and (d) that the results may be more likely to be influenced by the researchers’ personal biases and idiosyncrasies (Heppner et al., 2008).
Snelgrove and Lossi (2009) recommended that pain researchers utilize qualitative methodology to supplement the current literature, and address the need for detailed and contextualized understanding of how individuals make meaning of CP. They were the first researchers to conduct a longitudinal qualitative investigation of CP, with three sets of within-subject interviews, over a time period of three years. Snelgrove and Lossi conducted semi-structured interviews and analyzed data using interpretative phenomenological analysis. They investigated the long-standing effect of chronic low-back pain for 10 patients attending a pain clinic. The participants were seven females and three males between 39 and 66 years old. All participants had experienced chronic low-back pain for at least four years. Snelgrove and Lossi found that the participants’ experiences could be summarized by three main themes: (a) the struggle to maintain integrity, (b) the crucial nature of the pain, and (c) the struggle to manage pain.

Maintaining integrity involved detailed descriptions of what caused pain. Most participants positioned themselves as moral characters in their stories (Snelgrove & Lossi, 2009). For example, participants did not take any blame for the cause of their back pain. Participants’ reported difficulty in maintaining integrity because they did not feel that others believed their suffering (Snelgrove & Lossi, 2009). Most participants alluded to the unobservable nature of pain, particularly stating that an injured back is invisible, unlike a broken body part in a cast. The crucial nature of pain described the participants’ tendency to emphasize biological reasons for pain, rather than emotional components. Participants’ attention was focused on physical suffering, as opposed to any consideration of psychological factors (Snelgrove & Lossi, 2009). Managing the pain included
participants’ desires to control and reduce pain. The primary method of coping reported was medication (Snelgrove & Lossi, 2009).

Similarly, Snelgrove et al. (2013) explored the lived experience of eight individuals from the United Kingdom with chronic low-back pain. They conducted a three-phase, longitudinal, interpretative phenomenology. Three semi-structured interviews were conducted with each participant. Follow-up interviews were conducted at one and two years after the first interview. The transcribed interviews were analyzed using interpretative phenomenological analysis. Snelgrove et al. reported that a strong sense of loss, due to constant efforts to manage non-stop pain, was the main challenge that participants experienced.

Some participants had an understanding of the physiological etiology of pain. The participants who reported this knowledge (a) focused on the physical nature of pain, (b) underutilized behavioral coping strategies, and (c) reported a stronger sense of loss than did participants who had a more balanced etiological perspective (Snelgrove et al., 2013). They also found that participants who focused on the physiological cause, and underutilized behavioral coping strategies had an enmeshed identity. Participants who demonstrated enmeshment viewed the self as synonymous with pain. Furthermore, the participants who focused on the physiological causes of pain reported little re-establishment of any behavioral activities that were present prior to the onset of the pain condition (Snelgrove et al., 2013). In contrast, participants who reported a balanced view of etiology (a) perceived some type of pain decrease, (b) used behavioral coping strategies, (c) were future oriented, and (d) showed no evidence of an enmeshed identity.
A balanced view of physical, medical, and emotional etiology may be beneficial for individuals with chronic back pain.

Gudmannsdottir and Halldorsdottir (2009) specifically explored experiences of CP in an elderly population, residing in a nursing home (ages 74–97). Data were collected from dialogues with 12 participants, who reported multiple pain conditions (arthritis, arthrosis, low-back pain, abdominal pain, pain as a result of vascular insufficiency and Parkinsonism). An interpretive phenomenology was utilized to examine the essence of participants’ experiences with CP. Four themes were found: (a) challenges/blocks to acquisition of quality pain management, (b) silencing effects of pain, (c) distant nurses or caretakers, and (d) the quest to identify sources of strength (Gudmannsdottir & Halldorsdottir, 2009). Gudmannsdottir and Halldorsdottir concluded that professionals should (a) look for signs of silent suffering, (b) understand the alienating and silent nature of pain, (c) adopt a wider perspective of CP (e.g., understand the many health consequences CP is associated with), and (d) actively reduce barriers to quality pain management. This study demonstrated the complexity of CP in an elderly population and urged clinicians to be mindful of such complexity while creating treatment plans for individuals with CP.

Smith and Osborn (2007) investigated how chronic low-back pain affected participants’ sense of self or identity. Semi-structured interviews were conducted with six participants and analyzed through interpretative phenomenological analysis. Smith and Osborn (2007) found that CP had debilitating effects on the participants’ identity, even if the pain was described by the participant as benign. Participants reported that CP contributed to a poor self-image and low self-esteem. They also reported increased
negative affect and stated that negative affect was often projected onto other people. One participant stated,

It’s not who I am, it’s just who I am if, you know what I mean, it’s not really me, I get like that and I know like, you’re being mean right now but I can’t help it. It’s the pain, it’s not me but it is me, me doing it but not me, do you understand what I am saying? (Smith & Osborn, 2007, p. 522)

Smith and Osborn suggested that interventions for individuals with CP should target identity, shame, and acceptance. This study identified core emotions that may need to be addressed during the psychological healing of individuals with chronic low-back pain.

As expected, the implications of CP are not limited to individuals with CP (Jordan et al., 2007). The physical, mental, and emotional toll of CP may also be stressful and demanding on friends, family, teachers, employers, and caretakers of an individual with CP (Jordan et al., 2007). Jordan et al. (2007) explored parents’ experiences of raising adolescents with various CP syndromes. Jordan and colleagues interviewed 17 parents/caretakers (11 mothers, 5 fathers, and 1 grandmother). Utilizing interpretative phenomenological analysis, they found that two superordinate themes: (a) struggle for control and coherence, and (b) a very different life (Jordan et al., 2007). Overall, parents struggled to adapt to an unexpected and new life, which was filled with uncertainty, fear, stress, and loss (Jordan et al., 2007). Many parents attempted to find legitimacy and comfort in a specific diagnosis for their child. If an adolescent’s pain condition was not diagnosed, an unusual pattern of parenting occurred due to the search for control; parenting behaviors seemed to regress back to similar parenting styles that most often occur when a child is in infancy (Jordan et al., 2007). This study highlights the all-encompassing nature of pain and the effects pain may have on caretakers.
Briscoe (2000) conducted a phenomenological investigation that explored how people experience and cope with CP (specific sites of pain were not reported). Four experiential themes came to light: (a) invisibility to others, (b) limitations, (c) feeling out of control, and (d) separation. Invisibility became problematic to participants when they asked for help and experienced others’ negative judgments (e.g., lazy, faking pain, dramatic). Invisibility also was a problem in terms of diagnoses. Participants expressed concern that many pain conditions are medically invisible. Participants felt like their pain condition was slightly more visible when they knew what was wrong (i.e., diagnosis; Briscoe, 2000).

Once the participants understood what was wrong, they then had to decide if they should hide their pain from or reveal their pain to others. If participants chose to reveal the pain, the timing and consequences had to be weighed. For example, revealing pain may prevent future/continued employment, but it also may provide increased support from family and friends. Awareness of many limitations, both physical and relational, was expressed by participants. Participants’ daily lives became plagued with barriers. They described activities that they could no longer participate in and explained the painful consequences of over-estimating a safe level of activity. They also described how CP affected friends and family. For example, children did not understand why participants could not play with them, physical intimacy with participants’ partners decreased, and friends had to leave events early due to the pain of the participants (Briscoe, 2000).

Subsequently, feeling out of control was a theme throughout each participant’s story (Briscoe, 2000). Participants reported that pain took control, despite the many
efforts taken to regain order. Subthemes were (a) the importance of knowing/not knowing (e.g., diagnoses, etiology), (b) predictability (e.g., will today be a good or bad day), (c) winning/losing the battle against pain, and (d) death (e.g., suicidal ideation, specific parts of life ending; Briscoe, 2000). Another overarching theme was separation. Separation was characterized by the participants feeling separate from their own bodies or from others. One participant stated, “You almost have to separate yourself from your body and care for your body like it was something separate from you” (Briscoe, 2000, p. 93). It appears that successful coping strategies involve refraining from enmeshment with pain.

In addition to the five experiential themes previously discussed, five themes came to light regarding coping strategies and pain. These themes were conflictive in nature and represented choices that participants were continually forced to make. The themes were (a) hiding/revealing, (b) accepting/denying, (c) enduring/managing, (d) connecting/withdrawing, and (e) monitoring/evaluating/deciding (Briscoe, 2000). Hiding/revealing referred to the participants’ decisions about when to reveal or hide pain conditions. Accepting/denying referred to the issue of chronicity, an internal debate between (a) denial of the possible permanence of pain and associated limitations, and (b) acceptance of pain. Enduring/managing was described as an “active choice to be inactive” (Briscoe, 2000, p. 89). Enduring/managing consisted of letting time pass and simply trying to live through intense flare-ups. Connecting/withdrawing consisted of the participants’ choice to connect with others and share experiences about CP or to isolate. Monitoring/evaluating/deciding described participants’ constant monitoring of bodies and symptoms, evaluation of that information, and the decision of how to respond (Briscoe,
Lavie-Ajayi et al. (2012) investigated the emotional, social, and personal narrative of six individuals living with CP. The participants were two men and four women between the ages of 27 and 61. Participants had either fibromyalgia, arthritis, or a spinal cord injury. Lavie-Ajayi et al. conducted two-hour interviews with participants. The first hour focused on the participant telling their stories in an open-ended format; the second hour focused on more specific questions related to the diagnosis process, treatment, and influence of pain. Interviews were analyzed using a grounded theory approach. Lavie-Ajayi et al. found a unique result of CP which they termed “narratological distress” (Lavie-Ajayi et al., 2012, p. 195). Narratological distress was defined as the unique emotional tension created by CP, specifically, the tension between two, often contradictory experiences of a pain condition. Participants suggested that CP is both a vivid and all-encompassing phenomenon that affects every aspect of life and an elusive and deceptive phenomenon that is often ignored, denied, or delegitimized by others (Lavie-Ajayi et al., 2012). This study identified a theoretical framework to approach CP; perhaps there is a duality in the nature of experiencing CP. Furthermore, a strength of this study was the attention to the systemic aspects of pain and call for institutional action.

Henwood, Ellis, Logan, Dubouloz, and D’Eon (2012) conducted an exploratory study that examined the process of acceptance in regard to pain. Sample selection was guided by emerging categories and the saturation of data. Seven individuals (five men
and two women between the ages of 30 and 67) with spinal cord injuries were interviewed. Henwood and colleagues utilized a grounded theory approach and identified six phases of acceptance and two driving forces behind the acceptance process. Six phases of acceptance were (a) comprehending the perplexity of CP, (b) seeking pain resolution, (c) acknowledging pain permanence, (d) redefining core values, (e) learning to live with the pain, and (f) integrating pain into daily life. The two driving forces were (a) increasing independence, and (b) an evolving view of pain (Henwood et al., 2012).

Henwood and colleagues found that decreased emphasis on the continued search for a cure and movement toward acceptance may be beneficial for individuals with CP. This study played an important role in advancing the qualitative pain research, because acceptance is a re-occurring theme found in most prior qualitative investigations of pain (Briscoe, 2000; Gudmannsdottir & Halldorsdottir, 2009; Jordan et al., 2007; Lavie-Ajayi et al., 2012; Smith & Osborn, 2007; Snelgrove et al., 2013; Snelgrove & Lossi, 2009). This study specifically examined acceptance, in relation to pain, and revealed a clearer definition of acceptance.

Eccleston et al. (2001) conducted an exploration that is most similar to the current study. They explored the experience of CP, specifically in relation to worry. Eccleston and colleagues were curious about how individuals with CP worry in comparison to pain-free counterparts. Participants were 34 patients (18 females and 16 males) at a pain clinic in the United Kingdom. Participants were between the ages of 19 and 67, with a mean age of 48. Participants experienced pain lasting at least six months and the site of pain varied; however, most (n = 18) participants reported back pain. Participants were administered three inventories to measure somatic sensations, state and trait anxiety, and
worry. In addition, participants were given a diary for recording detailed accounts of worry. The written accounts were analyzed utilizing interpretive phenomenology. Participants reported that worry about CP was more difficult to dismiss, more distracting, more intensive, more intrusive, and less pleasant than worry unrelated to pain. A significant mean effect of type of worry was found $(11, 17) = 3.18, p < 0.05$ (Eccleston et al., 2001). Eccleston and colleagues found that worry was not related to a disposition of anxiety, but was related to awareness of somatic sensations. Accordingly, “an attentional model, in which worry functions to maintain vigilance to threat” may be best utilized to understand worrying related to CP (Eccleston et al., 2001, p. 309). Although the specific focus on worry was a strength of this study, it should be noted that a lack of a control group for comparison (e.g., investigating how participants without CP worry) is a limiting factor.

**Summary of the Literature Review**

The previous summary included a systematic review of the literature on CP and depression and anxiety. Both depression and anxiety have been shown to directly and positively correlate with CP (Ahman & Stalnacke, 2008; Bair et al., 2008; Blackburn-Munro & Blackburn-Munro, 2001; Brown, 1990; Castro & Daltro, 2009; Currie & Wang, 2005; Edwards et al., 2003; Ericsson et al., 2002; Fishbain et al., 1997; Godfrey, 2007; Gormsen et al., 2010; Greenberg & Burns, 2003; Lyons & Beilock, 2012; McWilliams et al., 2003; Nagakura et al., 2009; Narita et al., 2006; Tennen et al., 2006; Theunissen et al., 2012; Vowles et al., 2004). Two models have been proposed to describe the directionality of the relationship between CP and depression and/or anxiety: the vulnerability model (Currie & Wang, 2005; Ericsson et al., 2001; Lyons & Beilock,
2012; Martin et al., 2007a) and the consequence model (Blackburn-Munro & Blackburn-Munro, 2001; Brown, 1990; Nagakura et al., 2009). Researchers have found support for both models, thus indicating that mental health distress may either cause pain or be a consequence of pain (Godfrey, 2007).

Six variables were repeatedly studied in relation to CP: (a) self-efficacy for managing pain, (b) anxiety sensitivity, (c) health anxiety, (d) interpersonal attachment/social support, (e) disability, and (f) poor quality of life. High pain intensity was associated with low self-efficacy (Arnstein et al., 1999; McGuigan, 2008), social support (Monsen et al., 2002), quality of life (Bair et al., 2008; Waxman et al., 2008), and high anxiety sensitivity (Zvolensky et al., 2001), health anxiety (Greenberg & Burns, 2003), and disability (Bair et al., 2003). Gender, age, and racial differences among individuals with CP were also reviewed. There has been some evidence (Elklit & Jones, 2006; Green et al., 2004; Martin et al., 2007b; Rustøen et al., 2004) that suggests that CP is experienced differently across genders, ages, and races, as well as some evidence that does not support significant differences across genders, ages, and races (Carey et al., 2010; Hairi et al., 2013; Kaczynski et al., 2009; Kimble et al., 2003). It appears that ethnic and racial differences, related to CP, may be small when racial groups are closely matched on variables (Edwards et al., 2005).

Qualitative researchers (Briscoe, 2000; Eccleston et al., 2001; Gudmannsdottir & Halldorsdottir, 2009; Henwood et al., 2012; Lavie-Ajayi et al., 2012; Snelgrove et al., 2013; Snelgrove & Lossi, 2009; Smith & Osborn, 2007) have found experiences of CP to be associated with many different struggles to (a) maintain integrity, (b) understand the etiology of pain, (c) manage feelings of loss, (d) cope with the silencing effects of pain,
(e) understand/manage a new identity, and (f) cope with the limitations related to pain.

Employment concerns, redefinition of values, constant searches for pain resolution, and feelings of invisibility, lack of control, denial, and stress were also reported.
CHAPTER III

METHODOLOGY

Research Design

As previously discussed, most research on CP and mental health has been conducted with quantitative methodology. This study utilized a phenomenological design, with the aim of understanding the essence of the lived experience of individuals with CBNP and depression and/or anxiety. The phenomenological philosophical underpinnings are particularly relevant to CP, as phenomenology emphasizes a subjective reality. Pain is a subjective experience and no individual is able to feel another individual’s pain in an identical way. Even attempts to quantify pain, such as traditional pain rating scales, are subjective. For example, the same pain level described by one individual as 6 on a scale of 10 may be described by another individual as 2 on a scale of 10. Phenomenology allows for the description of meaning from lived experiences to be analyzed and understood. Understanding the essence of individuals’ experiences with comorbid physical and psychological pain will inform effective interventions and future research.

The Phenomenological Approach

The tenets of phenomenology have been practiced for centuries, but became formally established during the 20th century, through the work of Edmund Husserl (1931), Martin Heidegger (1927), and others. Husserl is usually credited with starting the philosophical movement of phenomenology (Moustakas, 1994). Husserl emphasized the meanings that phenomenon have while being experienced. He believed that experience is
directed toward things, *only through* particular concepts, such as thoughts, ideas, and images; these thoughts, ideas, or images make up the meaning and content of an experience. Furthermore, he explained that the meaning and content are distinct from the things they represent or mean (Husserl, 1931).

Van Kaam (1959) operationalized phenomenological research in psychology. He was interested in the experience of truly feeling understood and heard. Van Kaam (1966) collected and analyzed 80 descriptions/definitions from participants of what it means to be truly understood. He believed that preconceived experimental designs and statistical analyses may actually distort findings. He proposed that a phenomenological approach to psychological research may be more accurate than traditional experimental designs, particularly because phenomenological research provides access to in-depth/detailed data, which corresponds to the in-depth/detailed nature of psychological constructs (Van Kaam, 1966).

Von Eckartsberg (1986) outlined three steps of empirical phenomenology: (a) phenomenon identification; (b) collecting, engaging, and quarrying the text of life; and (c) data analysis. The main purpose of phenomenology is to reduce individuals’ experience with a phenomenon, in this case, concurrent physical pain and mental health distress, to a description of its *universal essence* (Creswell, 2007). A phenomenological approach requires relationships to be established with the lived experience of participants through extensive study of a small number of individuals (Moustakas, 1994).

**Sampling, Subjects, Access, and Setting**

Criterion and purposeful sampling was used. Criterion sampling involves selecting participants based on a predetermined set of criteria. Criterion sampling was
used primarily as a quality assurance measure, because it was important that participants were experiencing the phenomenon under investigation (Creswell, 2007). Purposeful sampling involves selecting recruitment sites that purposefully inform an understanding of the research problem (Creswell, 2007). Purposeful sampling was used in order to increase the probability that participants would represent a wide array of ages, races, ethnicities, socioeconomic statuses, and sexual orientations; recruitment procedures were developed to facilitate diversity and equal opportunity. Ten volunteers, who met criteria, were chosen to participate in the study. Participants were (a) adults, between the ages of 19 and 53; (b) diagnosed with at least one CBNP condition for a duration of at least one year; and (c) diagnosed, according to the DSM-IV or DSM-5 (American Psychiatric Association 2000, 2013), with at least one depressive or anxiety disorder for a duration of at least one year. In addition, participants were not diagnosed with a terminal illness, nor had they undergone surgery within the prior year. The duration criterion ensured that participants had the diagnoses long enough to have experienced the phenomenon (Muller, Thomas, Dunn, & Mallen, 2013). Participants with terminal illnesses were excluded because existential issues may have diluted the phenomenon of interest. Participants who had surgery within the past year were also excluded, because acute surgical pain may have diluted the phenomenon of interest as well.

Participants were recruited by flyers (see Appendix A), advertised through postings, mass emails, and word of mouth. The researcher contacted office administrators of West Michigan pain clinics, doctors’ offices, and organizations and asked if flyers may be hung up in lobbies and offices. The flyer instructed those that
were interested in learning more about the study to contact the researcher by telephone or email.

Participants who contacted the researcher were emailed an invitation letter (see Appendix B for invitation letter) that described the study in detail. After they read and understood the invitation, they were asked to contact the researcher to schedule a meeting with her in order to learn more about what participation in the study entailed. Nine out of the 10 meetings were held at the researcher’s office, located at Western Michigan University’s Counseling Services, in the Sindecuse Health Center. One meeting was held at a participant’s office, at her place of work, for her convenience. During the initial meeting with the participants, the informed consent process was reviewed. At this time, the participants also received demographic forms (see Appendix C) and consent forms (see Appendix D). At the time of interview, participants filled out the demographic forms and signed the informed consent documents and were reminded that they may withdraw consent and stop participating at any time.

**Data Collection Methods, Procedures, and Instrumentation**

After being given verbal and written informed consent from the participants, the researcher reviewed the completed demographics form with the participants and collected data via in-depth, semi-structured interviews (see Appendix E for interview protocol). All participants were able to read and write, and spoke English as their first language. None of the participants reported having a visual or hearing disability. Prior to the interviews, the researcher self-reflected and wrote a full description of her own experiences with the phenomenon of interest, therefore bracketing her own experience from those of the participants (please refer to pages 60–61). Bracketing is a qualitative
research process that was developed to maintain clarity and as much objectivity as possible (Marshall & Rossman, 2011).

The researcher served as the instrument in this study by gently guiding participants’ stories toward the phenomenon of interest (Creswell, 2007). Each interview was tape recorded and lasted approximately 60–90 minutes. Each interview began by building rapport and ended with the approved exit plan (Marshall & Rossman, 2011). The exit plan consisted of debriefing, ensuring safety, and referral. At the end of the interview, the researcher conducted risk assessments to ensure that none of the participants were a threat to their own or another’s safety. Participants were also given a referral sheet (see Appendix F) with information on how to access community resources if the need arose post-interview. None of the participants reported to be, nor appeared to be, threats to themselves or others at the conclusion of the interviews.

At the end of the interviews, participants were debriefed regarding the final research product and were offered an electronic copy of the finished manuscript, which 9 out of 10 participants accepted. All of the participants were asked to review the accuracy of their interview after transcribed, and all accepted. The researcher emailed each participant a copy of his/her transcript, asking the participants to notify her if there were any errors. The researcher did not receive notification of any errors. Care was taken to (a) answer any questions participants had, (b) specifically thank participants for donating time to share their story, (c) respect cultural differences, and (d) engage in a healthy, safe, and planned good-bye.
Data Analysis Processes and Procedures

Seven interviews were transcribed by the researcher, and three by her research assistant. Identifying information was replaced with letters (e.g., participant A, B, C). Data were encrypted on a password-protected computer in the researcher’s home. Documents were not electronically transferred (e.g., USB, email) to ensure security of data, with the exception of emailing de-identified transcripts to the participants in order for accuracy checking. A phenomenological hermeneutic analysis (Ricoeur, 1976) was utilized to uncover the essence of participants’ experiences of living with co-morbid CBNP and depression and/or anxiety. This method was chosen because it is descriptive and interpretive. Phenomenological hermeneutic analysis involved explaining and understanding the meaning of experiences by interpreting interviews. Hermeneutics was designed to facilitate analysis and understanding of another individual’s perspective, as well as the cultural context that shaped his/her perspective (Ricoeur, 1976).

“Coding data is the formal representation of analytical thinking” (Marshall & Rossman, 2011, p. 212). Coding may take many forms but is always “a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data” (Saldana, 2013, p. 3). The researcher used Creswell’s (2007, p. 170) five-step template for coding a phenomenological study and Saldana’s (2013) coding manual in order to analyze the data. The first and second steps are personal bracketing and identifying significant statements; both were conducted in phase one. The third, fourth, and fifth steps are identifying meaning units, textural descriptions, and structural descriptions; all three were conducted in phase two. The third phase of analysis involves a written composite description of the phenomenon. The software program MAXQDA, a
program designed to enhance validity of qualitative investigations, was used as an aid in analysis. The benefits of using MAXQDA were increased organization of codes, utilization of functions that identify repeated words or phrases, and the maintenance of accuracy. The use of computer software was a credibility/validity and dependability/reliability measure.

Phase One

Phase one of phenomenological hermeneutic analysis began by *horizontalization*, a term coined by Moustakas (1994). Horizontalization required the researcher to read through each transcript three times. Ricoeur (1976) explained that this process allows the researcher to obtain a sense of *the whole*, while maintaining the highest possible degree of novice-like, curious, and blank-slate-like stances. Phase one was a learning process, which allowed the researcher to be immersed in the data (Richards, 2009). As the researcher read the text, all interesting or important excerpts were underlined and recorded in a memo (pre-coding), as well as the rationale for inclusion of that particular excerpt. Pre-coding was followed by open, structural, descriptive, and in-vivo coding (Saldana, 2013). This process was conducted for three reasons: (a) to develop an audit trail; (b) to facilitate the process of moving from text to abstract perception of experience, thus ensuring that the findings were as closely tied to the original data as possible; and (c) to set the stage for phase two of data analysis (Richards, 2009). More specific coding practices used in phase one included emotion, literary, causation, and holistic coding. The goal of this process was to develop a list of non-repetitive, non-overlapping, significant statements. Phase one culminated in a written summary and a diagrammatic model of the general findings (Ricoeur, 1976; Saldana, 2013). To sum up, in an albeit
less elegant and comprehensive way, phase one largely consisted of immersion with the data, memoing, bracketing, and initial coding.

**Phase Two**

Phase two began by examining the transcripts in distinct entities to provide an explanation. The researcher divided text into *meaning units*. Meaning units are units of information (words, sentences, or paragraphs), which are grouped into overarching themes (Creswell, 2007). Themes are “textual descriptions of the experience—*what* happens—and includes verbatim examples” (Creswell, 2007, p. 159). Then the researcher composed a *structural description*, which can be found at the end of Chapter IV. The structural description is a description of the context in which participants experienced chronic physical pain and psychological distress (Creswell, 2007). Specific coding practices used during phase two were pattern, process, and context coding (Saldana, 2013).

**Phase Three**

The third and final phase of phenomenological hermeneutic analysis involved a written composite description of the phenomenon as a whole, incorporating both the textural and structural descriptions (Creswell, 2007). During the analysis, the underlying structure of the phenomenon emerged and the researcher gained a clearer understanding of what it is like to go through life experiencing CBNP and depression and/or anxiety (Creswell, 2007). The written composite (Chapter IV) is the essence of the participants’ experiences and represented the cumulating aspect of this phenomenological study (Creswell, 2007, p. 159). In general this phase summarized and communicated to the
reader *what* the participants experienced and *how* they experienced it. The researcher was attuned to both commonalities and differences among participants.

**The Researcher: An Epoche**

Because the researcher is the main instrument in phenomenological research, it is critical for the researcher to reflect on personal experiences with the phenomenon of interest and uncover any preconceived assumptions (Marshall & Rossman, 2011). Husserl’s (1931) concept of an epoche (or bracketing) is recommended by Moustakas (1994), in order for the researcher to gain a fresh perspective on the phenomenon in question. Moustakas explained that a completely fresh perspective is rarely achieved; however, no research design is flawless. In this section, I reflect on my background with CBNP, psychological distress, and the connections I make between them. I also explore my preconceived assumptions about physical pain and mental health.

I experience CP in both my back and neck. In 2003, at the age of 18, I was taken to a neurologist in upstate New York, where I grew up, because I could not move without excruciating back pain. After X-rays, MRIs, and multiple doctor visits, I was diagnosed with degenerative disc disease and spinal stenosis. Degenerative disc disease is the gradual degeneration of the discs that reside between the vertebrae in the spine. Spinal stenosis is defined as a narrowing of the spinal canal, which causes irritation to surrounding nerves. Over the last 11 years, I have experienced four damaged discs in my spine ranging from my neck (at cervical disc level 4/5) to low-back (fifth lumbar level [L5] and first sacral level [S1]). At times, I was unable to walk, sit, stand, or complete tasks without assistance. In 2008, at the age of 23, I had major back surgery, specifically an artificial disc replacement. I now have an artificial disc at the joint between the L5/S1
vertebrae of my spinal column. Despite what feels like *endless* treatment, physical therapy, medications, chiropractic care, steroid injections, and surgery, I still live with daily CBNP. Though I feel I have obtained some acceptance of my CP conditions, I am always aware of the pain, as well as the physical limitations and the negative emotional consequences that pain has on my life.

**View of the Relationship Among CBNP, Depression, and Anxiety**

This study aimed to uncover how/if individuals perceive the/a relationship between physical pain and emotional distress; thus, it is crucial that I examine, reflect upon, and bracket my own connections. The way I make sense of the relationship between my physical pain and psychological health is through a metaphor, in which pain acts as a heavy weight. In the beginning of a weight-lifting session, individuals usually have energy, and although the task is straining, it is feasible. Eventually, the task becomes harder and harder and the weight feels heavier and heavier until it can no longer be lifted. Similarly, my mood becomes harder to lift as the pain becomes more intense (or heavy). It is much easier to keep my mood high, or at least stable, when my pain is of a lower intensity.

**Anxiety.** During flare ups, I become anxious, because I remember how traumatic it was when I was unable to move, had surgery, or was going through rehabilitation. That fear lives inside of me and is elicited during times of severe pain. I am also afraid to do certain activities, which often leads to avoidance. Fear of making the pain worse is a driving force in my life.

**Anger.** After an extended time-period of pain or being unable to participate in a desired activity (e.g., playing softball, working out, cleaning), I feel angry. I start to feel
bad for myself and think, “I did not do anything to deserve this. I was not participating in any risky behaviors; I was simply sitting in class as an undergraduate when the first pains emerged.” When I am in pain, I am easily irritated and tend to snap at the people closest to me. I often get frustrated and may eventually shut down or isolate myself.

Furthermore, I have been angry with doctors, physician assistants, and surgeons. I was told by my surgeon that the disc replacement I underwent would be a “miracle cure.” Recently, the particular disc replacement that I received has been discontinued due to malfunctions. Insurance no longer pays for disc replacements and the protocol for disc repair has returned to fusions. I am angry that I now have a part in my body that has essentially been recalled.

A few years ago, my back went out and I needed to be prescribed steroids to reduce the inflammation; however, my new primary-care physician did not understand what was wrong and would not prescribe them. I lay incapacitated at my house for three days, missing class and work. Then, I called him again; he recommended I take some Advil and ice my back, as of course I already had been doing. Three more days passed. I called again, speaking loudly and angrily; he said, “Oh, your back is still sore?” At no point was my back sore; I had been unable to function for almost a week, but he did not believe me. He then prescribed the steroids I had originally asked for, and I regained movement in a few days.

Most recently, my physiatrist ordered an MRI, which cost me over $700. The MRI results came in and she explained that she could not see anything in the images, because the metal in the artificial disk created a shadow. I was angry, because it is known that metal disrupts magnetic resonance imaging, and it should have been known
what material my artificial disc was made of. I essentially paid $700, left work early, was injected with dye, and laid in a machine for 60 minutes, for no reason. These are just a few of the frustrating situations that I have experienced related to my pain.

**Hopelessness.** I have felt hopeless in the past. The amount of energy I expend to complete normal daily activities, to compensate for injuries, to ignore or cope with pain, and to maintain a positive outlook is tiring. At times, I felt like I have tried everything and even tried to bargain with God, pleading that I’d do anything if the pain would subside. I still pray most nights that my spine be healed and strengthened.

In conclusion, I have had an adverse experience with CBNP and believe that it acts as a weight, bringing down my psychological health (i.e., increasing anxiety and depressive symptoms). Despite my unfavorable experiences, I am aware that pain may not always be associated with anxiety, anger, and hopelessness; pain may also have strengthening and humbling effects. For example, when I look back at all I went through, I feel as if I can get through anything. Also, I am able to cherish my pain-free moments of life with more appreciation, gratitude, and mindfulness. In essence, I strive to embrace a mindset in which I accept my pain as my particular life struggle. Using mindfulness and other coping mechanisms, I am able to manage my pain more days than not. My goal was to put aside the connections that I discovered between my physical and mental health and be curious how/if others experience the/a relationship. In addition to bracketing, multiple measures were taken to ensure reliability and validity of the current study. Traditional quantitative reliability and validity standards are addressed in qualitative research through adherence to trustworthiness standards. The following section is an
overview of all quality insurance measures that were taken to increase the rigor of the current study.

**Trustworthiness**

This researcher adhered to trustworthiness standards by attending to credibility, dependability, conformability, and transferability. Qualitative *credibility* corresponds to quantitative *validity*. Credibility is achieved through prolonged engagement, member checks, peer debriefing, searching for disconfirming evidence, and the development of an audit trail (Marshall & Rossman, 2011). The researcher participated in prolonged engagement; prolonged engagement refers to being immersed in the data for a prolonged period of time. The researcher conducted member checks; member checks refer to reviewing data and interpretations for accuracy with the participants (Marshall & Rossman, 2011). The researcher engaged in peer debriefing; peer debriefing involves the discussion of research findings with colleagues to confirm consensus of the interpretations/results. A search for disconfirming evidence was conducted, both by the researcher and peers. Furthermore, an audit trail was maintained throughout the analysis. Developing an audit trail refers to precise documentation of all steps and thinking processes that led the researcher to conclusions (Marshall & Rossman, 2011). In efforts to avoid all possible bias and increase credibility, all analyses were cross-examined via MAXQDA, a computer software program designed to enhance validity of qualitative investigations.

The interview protocol was also developed with validity/credibility considerations. Because the researcher experiences CP, nonverbal communication (e.g., readjusting position in chair) may have communicated unintended self-disclosure of the
researcher. According to researchers (Abell, Locke, Condor, Gibson, & Stevenson, 2006; Emans, 1986; Kvale & Brinkmann, 2009; Levy & Hollan, 1998; Oakley, 1981; Opdenakker, 2006; Poindexter, 2003; Reinharz & Chase, 2003), self-disclosure by the interviewer during semi-structured qualitative interviews has both benefits and limitations. It has been argued that some self-disclosure on the part of the interviewer may constitute a useful research strategy in that such disclosure allows for (a) prompting of reciprocal self-disclosure on the part of the interviewee (Abell et al., 2006; Reinharz & Chase, 2003); (b) the development of a connectedness between the pair, in which the interviewee is more likely to be inclined to be honest and detailed in his/her responses (Abell et al., 2006; Reinharz & Chase, 2003); and (c) rectification of problems that are inherent in the natural but unintended imbalanced power dynamic between the interviewee and interviewer (Kvale & Brinkmann, 2009; Levy & Hollan, 1998; Oakley, 1981).

On the other hand, it has been argued that self-disclosure by the interviewer may constitute a threat to validity because disclosure allows for (a) the possibility that the interviewer will receive undue attention and become the focus of the interview (Poindexter, 2003), and (b) possible bias by leading the participant to tell a more similar story to that of the interviewer’s experience (Emans, 1986; Opdenakker, 2006). Because leading the participant is the most damaging threat to validity, this researcher did not engage in self-disclosure and remained aware of her non-verbal communication, a strategy that has been shown to reduce unintended self-disclosure (Opdenakker, 2006). Should the participants have asked the researcher personal questions during the interview, she was prepared with a protocol (please refer to the bottom of Appendix E, the interview
protocol); however, no participant asked the researcher any personal questions during the interview.

In addition, the specific interview questions were also developed with validity/credibility considerations. Guidelines (Agee, 2009) to enhance credibility were followed during the creation of each interview question, for example: (a) all questions were open-ended, (b) questions did not contain value-laden or persuasive language, and (c) “why” questions were avoided in order to reduce tones of judgment. Guidelines (Agee, 2009) to enhance credibility were also followed upon the delivery of questions, for example: (a) questions were asked in a neutral tone, (b) questions were read verbatim to maintain consistency, and (c) questions were used to give the interviewee a topic, but not to specifically direct their responses.

Qualitative **dependability** is analogous to quantitative **reliability**. While reliability is concerned with replication, dependability emphasizes the need for the phenomenological researcher to account for the ever-changing context within which phenomenological research occurs. The phenomenological researcher is responsible for describing the changes that occur in the setting and how these changes affected the way the researcher approached his/her study (Bogdan, 2007). The researcher established dependability by developing and reporting structural descriptions during phase two of analysis (see Chapter IV). In addition, detailed memos were kept and served as a dependability measure. Memoing refers to the process of keeping detailed reflective notes throughout the research project. Each memo contains one idea, is dated, and may be referenced if needed. Most importantly, the use of MAXQDA enhanced dependability. After the interviews were transcribed and uploaded into the software
program, all analytical actions, along with the rationale for each action, were automatically recorded via MAXQDA. Thus, a document explaining detailed steps taken to arrive at findings is available to any researcher who chooses to replicate this study.

Qualitative confirmability corresponds to quantitative objectivity. Confirmability refers to the degree to which the results of a phenomenological study can be confirmed by others (not including the primary researchers). The strategies that were utilized to improve confirmability were (a) audit-checking, (b) peer-debriefing, (c) bracketing, and (d) the verbatim reporting of the research design and implementation (Bogdan, 2007). In addition, the existing research was examined and the degree to which this study is congruent with those findings was evaluated (see Chapter V).

Qualitative transferability is analogous to quantitative external validity, or the extent to which the results of a study may be generalized to a population. Similarly, transferability refers to the degree to which the results of a qualitative research study may be generalized to other contexts (Bogdan, 2007). In contrast to external validity, transferability is primarily the responsibility of the researcher doing the generalizing; however, to enhance transferability of this study, the research context and all assumptions made were described in detail (Bogdan, 2007). In addition, the current sample was fairly diverse for an $n$ of 10, according to the U.S. Census Bureau (2010). Furthermore, the topic of CP may be more generalizable than other constructs because (a) different CP sites tend to affect mental health states similarly (Narita et al., 2006), and (b) CP tends to affect different demographic groups and cultures similarly (Perrin et al., 1993).
Additional Ethical Considerations

Ethical considerations were heavily built into the development and implementation of this study. Approval from the Institutional Review Board (see Appendix G) and informed consent from all participants were accounted for. Rapport was built with each participant and the highest standards of *reciprocity* were enforced. In qualitative research, reciprocity refers to the act of giving back to participants for their time and effort (Creswell, 2007). This researcher acknowledged that she is indebted to each participant for their participation. It was understood that participants may experience painful emotions while sharing their stories; thus, a protocol was developed to ensure participants’ welfare. However, all participants reported that the interview experience was beneficial. Furthermore, all participants were debriefed and offered a copy of the final manuscript. The participants’ willingness to re-live their experience with CBNP, depression, and anxiety was a valued gift.

Assumptions

This study was a qualitative phenomenological exploration. This section is a description of the inherent assumptions that were made by this researcher. Qualitative inquiry assumes that reality is subjective and that social environments are individually constructed, thus assuming that generalizability is not always possible (Gall, Gall, & Borg, 2003). Qualitative inquiry embraces constructivist and pluralistic perspectives, rather than a positivistic perspective. While researcher bias can be minimized, qualitative researchers tend to believe that research is influenced by the values held by the researcher, as well as by the theories, hypotheses, or frameworks that the researcher has adopted (Heppner et al., 2008). Qualitative researchers assume that context is of primary
concern. Overall, inherent qualitative assumptions include contextualized perspectives and pluralism, largely due to the assumed dynamic nature of the world (Creswell, 2007). For a detailed description of the limitations to this study, please see section three of Chapter V.

**Summary of Methodology**

In summary, the researcher (a) described her experience with the phenomenon (via writing an epoch, bracketing, and memoing); (b) obtained, organized, and secured the data; (c) read through text and formed initial codes; (d) identified significant statements that described the essence of the participants’ experiences; (e) formed meaning units; (f) developed textual (what happened) and structural (how it happened) descriptions; (g) wrote a narration; and (h) facilitated a written discussion of findings (Creswell, 2007). The rationalization for these procedures stem from the philosophical underpinnings of phenomenology, in which all analytic decisions should be chosen without any particular expectations, but with the intent to understand and learn about individuals’ lived experiences with phenomena (Creswell, 2007). Furthermore, trustworthiness and ethical standards were followed. In order to increase the reliability and validity of the current study, the researcher engaged in (a) prolonged engagement, (b) member checks, (c) peer debriefing, (d) a search for disconfirming evidence, (e) the development of an audit trail, (f) use of computer software, (g) the development of structural descriptions, (h) memoing, and (i) detailed reporting of all assumptions and limitations.
CHAPTER IV
FINDINGS

Overview of Findings

This chapter provides detailed demographic descriptions of the participants, and answers to the questions (a) how do individuals with CBNP experience, understand, and draw conclusions about the relationship (or lack thereof) between physical pain and depression and/or anxiety, and (b) how do participants perceive talking about their experiences with CBNP and depression and/or anxiety? This chapter also includes the researcher’s analysis of the data and selected quotations from the participants’ interviews. The purpose of these quotations is to facilitate the reader’s understanding of the participants’ lived experiences. In addition, inclusion of these quotes allows the participants’ often silenced voices to be heard.

Summary of Participants

The participants were six females and four males, who were residing in, or visiting, a Midwestern town at the time of the interviews. In regard to race, seven participants identified as white, one identified as Latino, one identified as black, and another identified as biracial (half black and half white). Participants were between the ages of 19 and 53. In regard to sexual orientation, eight participants identified as heterosexual, one identified as lesbian, and another identified as bisexual. In regard to socioeconomic status, two participants reported that their household income was below $16,000 per year. Four participants reported that their household income was between $16,000 and $34,999 per year. Two participants reported incomes between $75,000 and
Another participant reported that her household income was between $50,000 and $74,999 per year, and another reported that her income was $100,000 or above per year.

In regard to relationship status, four participants reported that they were partnered or in a relationship. Two participants reported that they were single. Two participants reported that they were married, and two stated that they were divorced. All participants reported that English was their first language. In regard to religious affiliation, six participants identified as Christian, one as spiritual, one as agnostic or Unitarian with Buddhist influences, one as agnostic, and another as Taoist. Eight participants indicated that their belief systems were either somewhat or moderately important to them and two participants indicated that their belief systems were extremely important to them. In regard to education, four participants reported earning a bachelor’s degree. Three participants reported earning a master’s degree, and three reported completing some college. In regard to employment, all participants indicated that they were working, at least part-time.

In regard to CP, five participants reported experiencing back pain only. Two participants reported experiencing neck pain only, and three participants reported experiencing both back and neck pain. Three participants reported experiencing pain between 1.5 and 3 years. Two participants reported experiencing pain for 4 or 5 years. Three participants reported experiencing pain for 10 or 11 years, and two participants reported experiencing pain for 20 years or more. In regard to mental health, eight participants reported formally being diagnosed with a depressive disorder, and two reported being diagnosed with both a depressive and an anxiety disorder by a medical
and/or mental health professional. It should be noted that despite the fact that only two participants reported diagnoses of anxiety on their demographic forms, all participants referenced symptoms of anxiety during their interviews. Five participants reported being diagnosed with a depressive or anxiety disorder by a primary care physician or medical doctor. Five participants reported being diagnosed by psychologists. Three participants reported being diagnosed by counselors, and one reported being diagnosed by a mental health worker, but was unsure of the professional’s title. As indicated, some participants were diagnosed with depressive and/or anxiety disorders by multiple providers. Three participants reported feeling depressed or anxious for about one year. Three participants reported feeling depressed or anxious for three to six years. The remaining three participants reported experiencing depression or anxiety for either 14, 27, or 30 plus years.

In regard to medication, only one participant denied taking any medication at the time of the interview, or in the past. All other participants reported taking medication for CBNP, depression, or anxiety at the time of the interview or in the past. At the time of the interview, five participants reported taking pain medication, five reported taking psychotropic medication, and three denied taking any medication. Table 1 depicts the medications that the participants reported taking at the time of the interview, and Table 2 depicts the medications that the participants reported taking in the past. It is possible that the number of participants taking each medication may be underrepresented, because some participants forgot the names of medications that they were taking or had taken in the past. In regard to the treatment of mental health, at the time of the interview, three participants were attending psychotherapy, and one participant was planning to set up an
appointment with a psychologist. Seven participants reported that they had previously sought consultation with one or two mental health professionals. Two participants reported that they had previously sought consultation from three or four mental health professionals, and one denied previously seeking consultation from a mental health professional, but was planning to. In regard to CBNP, three participants reported seeking consultation from seven or more pain specialists. One participant reported seeking consultation from five or six pain specialists. Five participants reported seeking consultation from three or four pain specialists, and two participants reported seeking consultation from one or two pain specialists. Lastly, in regard to recruitment, six participants learned about the study through posted flyers, and four learned about the study through word of mouth. Table 3 depicts a summary of each participant’s gender, age, race, sexual orientation, relationship status, level of education, annual income, and duration of conditions.
### Table 1

*Reported Current Medications*

<table>
<thead>
<tr>
<th>Current medications</th>
<th>Number of participants taking medication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anti-inflammatory (Advil, Ibuprofen, Naproxen)</td>
<td>8 or more</td>
</tr>
<tr>
<td>Vitamins or supplements</td>
<td>3 or more</td>
</tr>
<tr>
<td>Trazodone for sleep</td>
<td>3 or more</td>
</tr>
<tr>
<td>Opioid pain medication</td>
<td>3 or more</td>
</tr>
<tr>
<td>Other pain medication (e.g., Cymbalta, Celebrex, Ultram)</td>
<td>3 or more</td>
</tr>
<tr>
<td>Muscle relaxers</td>
<td>1 or more</td>
</tr>
<tr>
<td>Adderall</td>
<td>1 or more</td>
</tr>
<tr>
<td>Antidepressants (e.g., Prozac)</td>
<td>1 or more</td>
</tr>
<tr>
<td>Mood stabilizer (e.g., Effexor)</td>
<td>1 or more</td>
</tr>
</tbody>
</table>

### Table 2

*Reported Past Medications*

<table>
<thead>
<tr>
<th>Past medications</th>
<th>Number of participants taking medication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ibuprofen, Naproxen, or Tylenol</td>
<td>4 or more</td>
</tr>
<tr>
<td>Vitamins or supplements</td>
<td>1 or more</td>
</tr>
<tr>
<td>Ambien or Amitriptyline for sleep</td>
<td>2 or more</td>
</tr>
<tr>
<td>Opioid pain medication</td>
<td>5 or more</td>
</tr>
<tr>
<td>Other pain medication (e.g., Lyrica)</td>
<td>1 or more</td>
</tr>
<tr>
<td>Pain patch</td>
<td>1 or more</td>
</tr>
<tr>
<td>Adderall or Concerta</td>
<td>2 or more</td>
</tr>
<tr>
<td>Antidepressants (e.g., Prozac)</td>
<td>5 or more</td>
</tr>
<tr>
<td>Anti-anxiety (e.g., Valium, Xanax)</td>
<td>2 or more</td>
</tr>
</tbody>
</table>
### Table 3

**Demographics of Participants**

<table>
<thead>
<tr>
<th>Participant</th>
<th>Gender</th>
<th>Age</th>
<th>Race</th>
<th>Sexual orientation</th>
<th>Relationship status</th>
<th>Education</th>
<th>Income (dollars per year)</th>
<th>Length of CP diagnoses</th>
<th>Length of mental health diagnoses</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>F</td>
<td>27</td>
<td>White</td>
<td>Heterosexual</td>
<td>Partnered</td>
<td>Bachelor’s degree</td>
<td>Below 16,000</td>
<td>10 years</td>
<td>14 years</td>
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**The Connection Between CP and Mental Health: Research Question 1**

Research question 1 was, “How do participants view the connection, if any, between their CBNP and depression and/or anxiety?” All 10 participants reported that they perceived a relationship between their CBNP and depression and/or anxiety. All participants were able to describe the relationship to some extent. Furthermore, all
participants indicated that as their pain levels increased, so did the severity of their depressive and/or anxiety symptoms.

**Causation**

All participants observed that their pain preceded the onset of depressive and anxiety flare-ups, and 20% even stated that they would not have any anxiety or depression if they did not have pain. Similarly, 20% of participants specifically believed that it is impossible to have pain without depression or anxiety and hypothesized that those who thought they were in pain, but not sad nor anxious, were simply unaware. One participant referenced instances in which his mood disturbance preceded his pain, and 30% reported instances in which poor mood worsened the already existing pain. Accordingly, 90% of participants described the relationship between CBNP and depression and/or anxiety as “cyclical” (Participants A, B, D, E, F, G, I). While the overwhelming majority reported that chronic pain initially preceded mental health symptoms, they also reported that after the initial onset of their diagnoses, the relationship became “a vicious cycle” (Participants B and E), in which the pain increased depression and anxiety, and likewise, the depression and/or anxiety increased the pain.

While discussing the cyclical nature of the relationship between CBNP and depression and/or anxiety, at least 60% of participants indicated that the two conditions “blurred together” (Participant F). It appeared that once the pain–mood cycle became chronic or ongoing, it was hard for the participants to distinguish causation of one condition from the other, due to the overlapping nature of the experiences. In addition, all participants explained that understanding the relationship between their CP and mental health aided in their ability to improve their quality of life.
Five Underlying Mechanisms of the Relationship

Mechanisms that underlie relationships refer to factors that influence links between two or more variables. Five underlying mechanisms of the relationship between CBNP and depressive and/or anxiety symptoms emerged. These mechanisms were (a) disability, (b) tension, (c) vulnerability, (d) cognitions, and (e) stress.

Disability. All participants reported that their pain caused some level of disability, which, in turn, caused depression and/or anxiety. As indicated by frequency and lexicon analyses, disability was the most frequently reported variable that affected the relationship. The participants reported that their levels of disability impacted them in two ways. First, the pain prevented completion of desired or necessary tasks, which caused depression and/or anxiety. Secondly, the pain prevented them from completing desired or necessary tasks in order to ameliorate already existing depression and/or anxiety. In both cases, participants believed that the reductions and restrictions of their functioning either explained or impacted the relationship between their CBNP and depression and/or anxiety. The 10 participants reported disability in more than 60 ways. Most frequently, participants reported not being able to (a) perform adequately at work or school; (b) engage in physical activity, such as exercising; (c) maintain valued hobbies and activities, such as fishing or traveling; (d) perform daily self-care rituals, such as cleaning the house; and (e) maintain normal levels of energy to get through the tasks of the day.

Tension. All participants reported that either physical or mental tension increased the intensity of the relationship between their CBNP and depression and/or anxiety, or that the reduction of tension decreased the intensity of the relationship between their
CBNP and depression and/or anxiety. Tension was experienced by the participants as feelings of strain, suspension, or bottled-up energy, which often led to anger. The most common ways in which tension was experienced was through stress, depression, or anxiety, which, in turn, tightened muscles, which then caused an increase in physical pain. Anger was frequently associated with the experience of tension. Anger either preceded tension, fueled tension, or was a result of tension.

**Vulnerability.** While only two participants actually used the word *vulnerable*, it became clear that all participants experienced some vulnerability within the process of living with CBNP and depression and/or anxiety. Due to the underlying mechanism of vulnerability, participants felt susceptible to being physically or emotionally hurt. At least eight participants, including all four men, discussed feeling embarrassed due to their CP and mental health concerns. All four men reported feeling embarrassed, because they were not able to perform physical activities or had to reposition, or awkwardly shift, in front of others. Participants also reported a fear of making the pain worse or becoming more seriously injured. For example, participant E explained:

> I find myself not meeting up with them [his friends] or I guess isolating myself from them, because I either didn’t want to look stupid, because I couldn’t do something, or I didn’t want to put myself in the position where I would either hurt myself or have to limit what they were doing, because I couldn’t do it or was afraid to do it.

**Cognitions.** Another mechanism that appeared to underlie the connection between CBNP and depression and/or anxiety was negative or racing thoughts. Some participants also described this mechanism as experiencing a “mental block” (Participants G and J). Most participants indicated that it was these thoughts that fueled the pain–mood cycle. In essence, if a participant were to have a thought such as *my back hurts*, a
cascading event of other thoughts, either racing, negative, or debilitating, would follow (e.g., I won’t be able to go to work, there may be something more seriously wrong with me, or what will this pain be like in twenty years?). At that point, the following thoughts became the mechanism in which the pain and mood worsened. In contrast, if the thought process stopped after mindful recognition of the pain, then the cycle would not be fueled in the same way. Participant G explained:

It’s [his pain is] like just taking up—if I didn’t have to think about that [his pain], I’d have much more power to think about other things (Participant G).

**Stress.** The findings of this study suggest that stress is a complex underlying mechanism of co-morbid CBNP and depression and/or anxiety. Not only did all the participants discuss stress multiple times throughout their interviews, but half of the participants actually included stress in their answers to the question “What unique challenges did/do you face concerning both your physical pain and mental health distress?” Stress was cited as both the cause and effect of the co-morbidity of CBNP and depression and/or anxiety. Stress was also complex in terms of its contextual framework. For example, stress was talked about in relation to (a) navigating systems (e.g., doctor’s offices, insurance companies, and institutions), (b) feeling tired, (c) rectifying conflicting treatment protocols, (d) identity changes, (e) acceptance processes, and (f) invalidation or discrimination.

Regardless of the context, the participants described stress as worsening either the pain or the mood, which was then described as worsening the other. In addition, stress was described as having a unique connection to disability. Prior to having pain, depression, and/or anxiety, many participants described physical activity as their primary
form of stress relief. After the pain or mood prevented them from engaging in physical activity, they realized that they were left without a way to manage stress.

Similarly, stress was reported to have a unique connection to tension. As one might expect, participants reported that as stress increased, tension increased. Consequently, pain, depression, and anxiety also increased, which continued the “vicious cycle” (Participants B and E). The following excerpts describe the unique experiences of stress within the relationship between CBNP and depression and/or anxiety:

When I feel super stressed, my back pain gets worse, like a lot a lot worse. When I’m really emotional or crying and stuff, my whole body is just a ball of nerves and just awful. Nothing makes it better until I calm myself down, yeah. When you are stressed, everything is super tight and you’re like “ooh.” So that doesn’t help with the inflammation. It makes the inflammation worse. (Participant C)

When I’m really stressed in school, stress brings out a lot of the pain too. So when I’m really stressed in school, then I start to get painful. And then I get anxious, because I’m getting stressed about school, and then I start getting depressed, because I’m starting to feel painful. (Participant A)

Working out was kind of my way to deal with stress. I hurt my back bad and I wasn’t able to do anything for months. I definitely feel that the back pain increases the level of depression, and sometimes can even cause me to become depressed or more depressed, mainly from not being able to enjoy the things I like to do and not having the stress relief I had with working out. (Participant E)

Stress will make my neck hurt. Then when I go to bed, I sleep in a total fetal position and I won’t move, and then my hips are in a horrible position, and then I am in horrible pain, and you know, stress. I feel like I get stressed pretty easily. (Participant I)

I do end up getting more stressed out when I am not keeping up with things, you know, and the depression is why I am not keeping up. (Participant J)

The Power of the Connection Between Pain and Mental Health

All participants described the relationship between CBNP and depression and/or anxiety as powerful. All participants made reference to the relationship between their CBNP and depression and/or anxiety before the interviewer asked specific questions.
about the combined impact of having co-morbid CBNP and depression and/or anxiety. Prior to the fifth question, the interviewer asked about physical pain and mental health separately.

Participant H shared an experience that sums up the power and depth of the relationship between CBNP and depression and/or anxiety. Participant H reported that he suffered from neck pain and depression. He explained that when he experiences a depressive episode, he actually uses his neck pain as a way to inflict self-harm. For instance, he stated that he stopped taking his normal precautions to prevent the pain, because the depressed mood made him feel as though he deserved to suffer. The neck pain was utilized similar to how cutting is used. The following dialogue between the interviewer and participant H demonstrates participant H’s experience:

Participant H: Well, it [the depression] made me, hmm, well, a lot of what I have to do for my neck is preventative measures, like physical therapy. For example, if you do a stretch today, the overall pain will be less, so pretty much I stopped doing things like that to prevent the pain. Like if my neck hurt, I would wait longer to take ibuprofen. I would be like “ok whatever.” I wanted to feel the pain more, which was unhealthy.

Interviewer: Why did you want to feel the pain more?

Participant H: To punish myself maybe? I mean, I haven’t really thought of the reasoning. Maybe to punish myself or maybe because I just figured that this is what I deserve, this is me.

The Unique Challenges of Chronic Pain and Depression and Anxiety

In addition to the unique challenge of stress, there were at least five other experiential themes that emerged, which were labeled by the participants as unique to their co-morbid diagnoses. These themes are (a) system navigation, (b) conflicting treatment protocols, (c) identity concerns, (d) invalidation and isolation, and (e) lethargy. The following section provides an explanation of each finding.
System navigation. Eighty percent of the participants described navigating institutions as a struggle. These institutions included doctors’ offices, insurance companies, pharmacies, hospitals, airlines, places of employment, or other business. These struggles left the participants feeling (a) publicly humiliated or insulted, (b) unheard, (c) stressed, (d) discriminated against, (e) overwhelmed, (f) beaten down, (g) angry, (h) financially burdened, and (i) as if they were jumping through a series of hoops.

Navigating these systems was described as a fight. Participants had to fight with the insurance companies, as they denied claims, lost paperwork, refused coverage, and failed to reimburse. Participants had to combat the stereotype that they were drug-seeking addicts, who abused pain medication. Participants were subjected to questioning, contracts, random pill count checks, and new regularity narcotic laws. Also, participants had to fight workers compensation programs to be adequately paid for their disability leave of absences.

Participants described the people they encountered through these systems as rude and usually unhelpful. They also described numerous incidents of discrimination and dismissiveness. The lack of sensitivity was apparent in personnel’s comments and actions. For example, one participant was mistreated by an airport employee, because she had an early boarding pass but did not look handicapped. Participants were met with feelings of frustration, exasperation, and annoyance from the medical community, especially if their pain was not subsiding as fast as the health care provider would have preferred. Subsequently, participants were made to feel crazy, weak, and annoying. Participants were met with dismissive and hurtful attitudes. They were told to get over it
and that they were over-reacting and would be fine. In general, participants were treated
as if their CP should be quickly fixed, as opposed to a lifelong disability condition. One
participant described the medical community as having “no mercy” (Participant C).

Moreover, participants expressed concern about time and financial hardships.
They explained that multiple required diagnostic and medical procedures demanded more
time and financial resources than the participants had the strength or means to give.
Similarly, another hardship reported by the participants was finding the right person in
the system to help. Participants were often not adequately helped until they contacted a
third or fourth person or institution. They explained that personnel gave them the run
around, unless payment was the subject of conversation. Participants discussed the
overarching cultural stigmatization of being disabled or mentally ill. In addition to trying
to overcome these systemic barriers, there was often pressure on the participants to deal
with barriers silently. Hiding their problems reduced the chances of stigmatization.

**Conflicting treatment protocols.** At least half of the participants illuminated a
fundamental discrepancy in treatment philosophies of CP and mental health. Participants
indicated that treatment of mental health did not always align with treatment of pain.
Participants eloquently described how pain is mostly treated by professionals who
subscribe to the medical model. They explained that medical professionals often search
for a solution. In contrast, they reported that mental health professionals tend to approach
amelioration of depression and anxiety with a more long-term management approach.
The participants were confused by the use of a short-term treatment model for either
diagnosis, as they often viewed CBNP and depression and/or anxiety as long-term
problems. Participants B and J described their experiences of being subjected to conflicting treatment protocols:

I just don’t think [that] some of the short-term methodologies that are out there to help people cope are really going in the right direction. I think maybe there’s some benefit to some of that and you know, kind of using an eclectic approach. But it’s one of those things where I kind of feel like, you know, I might want somebody to talk to off and on for the rest of my life about it [the pain]. I might feel like complaining in ten years, you know, and then I might go a year where I don’t have much to say. I don’t think it’s—it doesn’t go away, it’s not something you cure. (Participant B)

It’s a little different with the physical pain [as opposed to depression], because I guess most of the time they are trying to find a solution. (Participant J)

Furthermore, participants reported that some pain or mental health treatments actually worsened their symptoms. For example, pain medication often had a negative impact on participants’ functioning and mood. Similarly, sometimes mental health professionals and physical health professionals gave conflicting advice. Participants explained that the treatments that helped both their physical pain and mental health, such as massage, were often not accepted as a medically relevant treatment protocols and were not covered by insurance companies. Participant B explained how treatment of her pain worsened her depression and anxiety:

When you’re on medicine, I really believe medication has had an impact on how my mood was too. I was—up until fairly recently, I was on a dose of oxycontin [a pain medication] that was 12 hour, you know, sustained release, and I just think that it played a real bad part in my moods. (Participant B)

Some participants described conflicting treatment protocols even within the same domain. For example, one participant found the hypocrisy in his physical therapist’s expectation that he adopt a new rigid posture, but also keep his muscles relaxed at the same time. Others noted the multiple conflicting opinions that they received from different health professionals. Participants H and D explained:
I think that posture takes a while to get used to the change, but you have to relax while being rigid so I was just as uncomfortable getting used to the new posture than I was with my neck being in pain every day. (Participant H)

It’s weird how two different doctors can look at x-rays in completely different ways. You know, one can say “Oh, there’s all these issues,” when the other can say “I don’t see anything,” when it’s basically looking at the same x-ray. (Participant D)

Participants noted the compounding effects of treating physical pain and depression and/or anxiety. Participants explained that if treatment recommendations for physical health and mental health were followed, their weeks became consumed with appointments and co-pays. For example, one participant had at least four hours and $80 per week dedicated to physical therapy and psychotherapy. Because the participants had to treat at least two diagnoses, they explained that neither the mental health nor the medical community took into consideration the demands and ideologies of the other. Accordingly, participants reported that treatment protocols often conflict and result in increased stress or the inability to treat either condition fully.

Lastly, there seemed to be a misunderstanding about mental health professionals’ ability to treat CP. For example, only two participants mentioned a pain psychologist, and only one had briefly attended psychotherapy for the treatment of pain. In fact, many participants who were both participating in psychotherapy for mental health reasons and suffering from CBNP at the same time did not discuss their pain with their mental health provider. Ironically, it appeared that while participants viewed their CBNP as closely connected to their mental health, they did not view the treatment of their CBNP as closely connected to the treatment of their mental health issues.

**Identity concerns.** Every participant reported that experiencing CBNP and depression and/or anxiety impacted their self-concept. The participants explained
identity changes as negative, positive, confusing, all-encompassing, or as a personality change. Most participants reported that the onset of CBNP and depression and/or anxiety tended to dismantle their sense of self. This unraveling of identity was usually followed by successful or unsuccessful attempts to rebuild, recreate, or modify parts of the self-concept.

Eighty percent of the participants identified negative changes in how they viewed themselves after being diagnosed with at least one CP condition and at least one depressive or anxiety disorder. The participants reported feeling less confident, bad about themselves, and worthless. They indicated that their self-esteem was greatly reduced and that they rarely felt good enough. Many participants reported a new dissatisfaction with their physical appearance. They explained that they felt weaker, more out of shape, older, and less attractive.

In contrast, 40% of the participants described identity changes that were positive in nature. For example, some participants felt that dealing with the struggles that come along with CBNP and depression and/or anxiety made them stronger. They communicated a sense of strength, because they continued to persevere through difficult circumstances. In addition, these participants indicated that these difficult circumstances led to a healthy change in world view. For instance, participant H reported being more humble. Participant F discussed her newfound ability to refrain from making assumptions and judgments about others. Similarly, a few participants, who had previously viewed themselves as independent, became more accepting of others’ help.

Ninety percent of the participants made specific references to undergoing personality changes due to experiencing co-morbid CBNP and depression and/or anxiety.
The changes described varied in nature, but all represented a loss of a previous way of being. As formerly mentioned, there was a loss of viewing oneself as independent, which was accompanied by a realization that reliance on others was necessary. There was a loss of viewing oneself as free, which was accompanied by the realization that the responsibility of self-care meant that there needed to be increased thinking and decision-making before acting. For the younger participants, this loss of freedom seemed to be described as more of a loss of innocence, that was accompanied by a rapid adult-like maturity and associated with navigating new responsibilities and roles that were once seen more as their parents’. There was a loss of viewing oneself as capable or talented in certain areas. For example, professions, hobbies, and physical endeavors that once made up participants’ sense of pride were no longer possible, thus leaving a hole in the self-concept.

Participants lost their understanding of their interpersonal styles, because their interactions with others changed. For instance, some participants felt like they were better able to empathize with others. Some felt that they no longer cared what people thought about them. The participants viewed these behaviors as different. Some reported seeing themselves as less likely to take risks, less fun, or less active. Accordingly, there was a loss of familiar thinking patterns. There was a shift in the participants’ orientations to either the future or the present. For example, some described a shift from being an in-the-moment-type-person to being more future-oriented, due to their CBNP and depression and/or anxiety. Others experienced the opposite, viewing themselves as shifting from being future-oriented to focusing on the moment.
At least 60% of participants described their identity changes as either confusing or all encompassing. Some participants found it hard to tease out what identity changes occurred as a result of time and growing, or as a result of experiencing physical and emotional pain. Others felt that their physical and emotional pain affected everything—every part of their self-concept and life. This experience was expressed as never being able to be one’s full self, or never being able to give 100% of one’s self to the world.

While some participants specifically talked about actively preventing enmeshment with their conditions, others talked about the pain and depressive or anxiety symptoms as *becoming* their identity. In fact, these participants reported that their physical pain and emotional symptoms changed the entire way that they carried themselves: how they walked, talked, interacted, thought, slept, eat, sat, and even went to the bathroom. Also, only one participant described identity change as cyclical in nature, but her comment is noteworthy. This participant indicated that her sense of self *before* the onset of her conditions impacted her pain and mental health, in addition to the other way around, as all other participants had *only* discussed. Participant J explained:

> It definitely has [the depression and pain definitely has changed her sense of self], but part of it is the other way around possibly at some point. Like the way I view myself is part of the reason why I have the depression in the first place, you know what I mean? (Participant J)

**Invalidation and isolation.** All of the participants reported experiencing invalidation and isolation from others. Invalidation was often described as discrimination and involved being treated unfairly. Participant B even compared her experience to institutional racism:

> It’s kind of like institutionalized racism. We just all of a sudden start to think a certain way and we can’t even fathom that there’s another way to think about it, and we don’t think there’s anything wrong with our thought processes. And I feel
like anybody who’s on pain medication—because I’m having to be one of those people, I’m sure that I’m kind of lumped into this group of people that are drug abusing, drug seeking, you know? (Participant B)

Participants reported that they were treated as drug addicts, criminals, liars, and undeserving complainers. Many felt that they were not taken seriously and that their issues were dismissed as being an exaggeration or crazy ramblings. For example, participant F explained her experience of being dismissed by the medical community:

It [physical therapy] didn’t even really work at first, until one of the guys there actually listened to what I had to say, and that is when he started treating the whip lash injury instead of just treating someone that was just having migraines. (Participant F)

Participants received messages from others that implied that they were undeserving of their disability status and associated accommodations. Consequently, many participants felt like they had to prove or show their worthiness if it was not readily visible. For example, Participant F felt as though she needed to fake a limp after getting out of her car, because she rightfully parked in a handicap parking space, but her pain was invisible.

As a result of this constant invalidation, the participants reported experiencing many different forms of isolation. The most commonly discussed issue was the unanimous conclusion that people without pain, depression, or anxiety do not understand what it is like to experience those conditions. Especially in regard to CBNP, the participants made it clear that those without CP “don’t get it” (Participant C). The participants felt as if they rarely received genuine empathy from pain-free individuals, and if they did, it was only after explaining their situation in detail. The participants became tired of explaining themselves, being misunderstood, and consequently being isolated from social groups.
Participants reported that others viewed them as a burden, a nuisance, or incapable of being helped, which resulted in social withdrawal. Likewise, just as participants felt that others may not want to be around them, many participants reported that they did not want to be around others either. Many participants discussed staying home or alone because they (a) did not want people to know how they were feeling, (b) were more irritable or had less welcoming personalities, (c) lacked the communication skills to explain themselves, (d) did not want to feel uncomfortable or embarrassed, (e) could not participate in the normal activities of the social group, or (f) could not stay in the present moment long enough to enjoy the company of others. Participants indicated that isolation and withdrawal often resulted in the loss of closeness to important others, and even sometimes contributed to the loss of relationships entirely. In addition, a few participants noted that not only was it hard to maintain existing relationships, but it was hard to make new ones. Others noted that their diagnoses contributed to their decisions to engage in unhealthy relationships. For instance, participant J shared that because she felt bad about herself, due to her CBNP and depression, she had, in the past, stayed in unhealthy romantic relationships for longer than she would have liked.

**Lethargy.** Seventy percent of the participants discussed feeling an overall sense of physical and emotional exhaustion. They explained that their CBNP and depression and/or anxiety “drained” their energy (Participant G). The participants noticed that they became tired faster than they had prior to the onset of their diagnoses. This lack of energy led the participants to feel old, dread daily activities, and stay in bed or sleep for long periods of time. Some participants explained that sleeping was an escape from the
pain; however, others indicated that because of the pain and depression and/or anxiety, they could not sleep, which also led to lethargy. These participants explained that they had “had it” (Participants A, B, G, and I) and were “so tired” (Participant I). The fighting, explaining themselves, jumping through hoops, dismissiveness, and mood fluctuations left the participants fatigued and drained of energy. Participants B, G, and J explained their experiences with lethargy:

- It might be that I stay in bed until I actually have to get up and go to work. And then I go in and then when I get home, I get back in bed. (Participant B)

- That draining, like for me, it [pain] drains away my will. Or it drains my ability to focus and concentrate. I am starting to recognize that there is something there turning your thoughts to it [the pain] and wasting, not necessarily wasting, but recognizing that it’s using energy up. (Participant G)

- I definitely feel like it [back pain] makes me tired. Like I don’t have a lot of energy. (Participant J)

**Experiences of Being Interviewed: Research Question 2**

Research question 2 was, “How do participants experience talking about their CBNP and depression and/or anxiety with the interviewer? “ All participants reported that talking about their CBNP and depression and/or anxiety with the interviewer was an overall positive experience. At the end of the interview, participants were asked to rate the simple act of conversing about their CP and mental health, within the structured interview context, on a scale of 1 to 10, with a rating of 10 indicating a very positive experience. Participants’ overall mean rating was an 8.4, with a mode of 10. Forty percent of the participants rated the experience as a 10, a very positive experience. Ninety percent rated the experience as more positive, and one participant rated the experience as neutral. Table 4 depicts the participants’ ratings. Participants reported four reasons why their experiences were positive. These reasons were that (a) talking about
their conditions made them feel better; (b) a chance to reflect provided increased insight into one’s situation; (c) the interview provided a format in which they felt like they were taking action, or control over their conditions; and (d) participation offered a chance to help others.

Table 4

Participants’ Ratings of Their Experiences of Being Interviewed About Their Diagnoses

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Note. A rating of 10 represents a very positive experience, 5 represents a neutral experience, and 1 represents a negative experience.

The Talking Cure

At least half of the participants reported that being provided the space and structured format to discuss their CBNP and mental health was beneficial. These participants felt that it was healthy to communicate their struggles. They found respite in having someone new or different and nonjudgmental to actively listen and hear their story. There was an extra emphasis on relief from those who had not previously had many opportunities to talk about their pain and depression and/or anxiety. Participants C, D, and E explained how the talking cure was beneficial for them:

I think it’s [talking about CBNP, depression, and anxiety] good. It always makes me feel better to talk about—to have some fresh ears on the situation. (Participant C)
Well, and sometimes, too, just being able to be open about it [his pain and depression] and talk to someone about it will make me feel a little better, if I know I’m not going to be judged. (Participant D)

Part of it [talking about his pain and depression] was good to get it out. A lot of that stuff I don’t think I’ve ever said before. (Participant E)

**Reflection and Insight**

At least 40% of the participants reported that the experience of being interviewed about their CBNP and depression and/or anxiety allowed them to reflect on their experience as a whole, which led to greater self-awareness and beneficial ideas on how to manage life with their respective diagnoses. The structured interview allowed the participants to *re-live* the initial onset, diagnosis, and experiences. It allowed them to track their thoughts, feelings, actions, and overall personalities from the beginning of the journey to the present. It allowed them to review all the effects that pain, depression, and anxiety had on their lives. It allowed them to review and be reminded of what coping strategies and treatment options helped and did not help. It allowed them the time and space to process how they make sense of multiple thoughts, feelings, and behaviors. It allowed them to reflect on how they had gotten to the point where they were, and how they planned to live in the future. When asked how they experienced talking about their diagnoses during the interview, one participant described the experience as “enlightening” and another as “therapeutic”:

> Um, well, I don’t know, kind of therapeutic honestly. Talking about it and laying out the path of events that have taken place—I think it helps to put it in perspective, and also to now be able to see how it has affected my life. (Participant H)

> Until this conversation, I hadn’t really understood how things have gotten to where they are at. Um, I guess it was somewhat enlightening, you know, the way that I answered the questions. I maybe think about my coping, like thinking about
what has worked, and it just reminded me about some of those things that I haven’t been doing as much. (Participant E)

**Taking Action**

At least 50% of the participants reported that the experience of being interviewed about their co-morbid CBNP and depression and/or anxiety allowed them to feel as if they were “doing something” (Participants F and I) about their pain and psychological symptoms. The experience of providing information to the interviewer was described as constructive and meaningful. Other participants explained that it was rewarding to know that the interviewer was going to take their information and *do something* with it:

It’s almost a relief to be able to say this to you, who I know you are going to take this and make something happen with it. (Participant I)

You feel like this is constructive because you are doing it for something. (Participant F)

**Helping Others**

At least 50% of the participants reported that the experience of being interviewed about their CBNP and depression and/or anxiety allowed them to feel as if they were helping others. They hoped that the current study would illuminate information about the co-morbidity of CBNP and depression and/or anxiety, and aid health professionals in developing better treatment strategies. Two participants felt as if they had made progress or understood the relationship and wanted to share what they had learned with others who are suffering. They viewed the interview as a venue to share their knowledge. Five participants felt as if there are a lot of misunderstandings about the mind–body connection and wanted to be a part of dispelling those myths. Participants G and J explained how helping others, through participating in the interview, was beneficial to them:
I wanted to come in to give you information, because I felt like that I could give it to you from a person that is kind of feeling like a person who is getting somewhere. (Participant G)

I think it’s [being interviewed about CBNP and mental health] helpful because I know that there is lots of misunderstanding about the mind–body connection. A lot of people blog about it and whatever, but it is hopeful I think for me to be able to talk about it and contribute to efforts to gain more understanding behind it. (Participant J)

**Themes**

In addition to the aforementioned findings regarding research questions 1 and 2, six overall themes emerged from the participants’ responses via phase two data analysis procedures and the identification of meaning units (please see Chapter III). The six general themes pertain to (a) coping strategies, (b) the process of acceptance, (c) future plans, (d) more treatment strategies for CBNP than for depression and anxiety, (e) dissatisfaction with treatment results, and (f) the disconnection between the treatment of CBNP and depression and/or anxiety.

**Coping Strategies**

Participants were specifically asked which coping strategies they use or have used, and which were helpful or unhelpful. Coping strategies were described by the participants as *good* or *bad*. “Bad” did not refer to the utilization of the coping strategy failing, but related to the associated negative social stigma or side effects of the strategy. The strategies labeled as bad included alcohol and drug use, picking behaviors, and oversleeping. Alcohol and drugs were used to lessen the pain. Picking behavior was used to channel anxiety and as a distraction from the pain. Oversleeping was used as an avoidance behavior. All of these strategies were thought to help cope with the pain, but were not favored due to their negative side effects. Participant J explained:
I think, um, I tend to pick at stuff, like whether my acne or my hair, my split ends. I think it is an obsessive thing. I think it is a way to distract myself, so there is nothing good about that (laugh). (Participant J)

The remaining coping strategies can be broken down into six categories: (a) social support, (b) distraction, (c) cognitive restructuring, (d) routine and hobbies, (e) faith and spirituality, and (f) pushing through and body movement. The most common coping strategy was the use of social support. Social support included going out with, calling, or visiting friends or family. Social support also included going to church, spending time with pets, or helping others. Spending time with others seemed to help participants increase positivity and reduce feelings of anxiety, depression, and isolation. Friends and family were described as sources of strength, safety, and accountability. They were also sometimes described as a source of distraction from their pain and mental health symptoms, which was the second most talked about coping strategy.

The second most discussed coping strategy was the use of distraction. Participants continually spoke about keeping their minds off their CBNP, depression, or anxiety. These distraction techniques included cooking, baking, reading, telling jokes or humor, watching TV or movies, working, studying, playing video games, exercising, and socializing. Distraction seemed to be one of the most frequently used coping strategies, because it allowed the participants to compartmentalize the pain and gain a short break from their chronic stressors:

Just kind of putting it [CBNP, depression, and anxiety] in a different part of my mind for a little while and letting emotions cool down, and compartmentalizing a little bit and see—not not like less, not like . . . oh, words, um . . . not like pretending that it doesn’t exist, but kind of pretending that it doesn’t exist for a little bit (laugh). Letting it work itself out for a bit. (Participant C)
But a lot of times I will smoke marijuana and then play video games, and then it just kind of clears my mind of everything. I’m focused on the game or the movie I’m watching and I just kind of forget about everything else. (Participant D)

Another coping strategy was the act of challenging negative thoughts. This included identifying triggers or signs of possible bouts of increased depression or anxiety. Participants explained that reframing catastrophizing thoughts was a valuable coping skill that stopped the viscous pain–mood cycle from worsening. Similarly, participants were very aware of actions or feelings that would often precede depression or anxiety flare-ups. It was unclear how participants developed these coping strategies (e.g., life experiences, counseling, modeling, etc.). For example, participant F explained:

I know that I know my symptoms of this [depression] and if it is going to turn into a depression—if it is something specific, I always say “if I am not picking up the phone and not wanting to talk to someone all the way home,” that is a sign to me that my depression is kicking in or that I am not in a good place, and that’s when it triggers me to say “I’ve got to do something more about it.”

Once the participants noticed their triggers, they often were able to re-route their actions or thoughts in order to avoid worsening symptoms.

Another reported coping strategy was creating routine and structure within one’s schedule, as well as planning for breaks, relaxation, or self-care. Part of coping with CBNP and depression and/or anxiety involved accepting limitations and planning to incorporate those restrictions into daily routines. For instance, participant B talked about taking more frequent breaks. Participant F talked about making time to attend a relaxing and energizing women’s retreat. Participants D, J, and I discussed the coping strategy of having a regimented schedule or an organized routine.

Similarly, participants discussed implementing new, old, and alternative hobbies into their schedules. Because many old activities were no longer feasible, new hobbies
were created and integrated. For example, one participant began to play the guitar and piano, and another began singing in a choir. Another participant more frequently performed her previous hobby of reading. Others modified existing hobbies to better fit with their CBNP limitations, such as gardening with more breaks and better posture.

Two participants mentioned coping through faith or spiritual beliefs. These participants had strong connections with either a higher being or the cyclical process of living, suffering, and dying. Strength and guidance were found through the tenets of Buddhism, Taoism, and Christianity:

I just feel like God puts things in your life and I feel like that God gives me the strength to always do what I have to do, and always get through what I have to get through. I always say God knew this was going to happen way before I knew this was going to happen and He is not going to give me anything that I can’t handle. And when it gets really tough, there is nothing that He has not helped me get through. (Participant F)

Two other frequent coping mechanisms mentioned were pushing through and body movement. Pushing through is an idiom that describes confidence in the ability to work through hardships (McGraw-Hill, 2002). While these two coping mechanisms were not described in detail by the participants, it appeared that many coped by simply pushing through their CBNP and mental health symptoms, and doing what they needed to do. Others explained that they had to keep moving, both literally and figuratively. Those who felt they literally had to keep moving indicated that if they did not keep their body active, then the pain, depression, and anxiety would increase as their muscles tightened and mood worsened. Those who felt that they figuratively had to keep moving were referring to the concept of pushing through. Participants B and I referenced the coping strategy of pushing through and body movement:

I try to just keep pushing through things. (Participant B)
I have discovered the link between the physical pain and the mental health and it’s the movement [of the body]. (Participant I)

**The Process of Acceptance: “You Can’t Direct a Fish” (Participant I)**

Acceptance, in the context of CP, refers to the ability to acknowledge and be content with conditions, particularly those that are not going to change (i.e., CBNP, depression, and anxiety). Participants described the acceptance of their conditions as an ebbing and flowing process. This section describes salient themes that emerged in relation to acceptance. Chapter V provides an introduction to a tentative stage model of acceptance that may help practitioners to better understand the process of acceptance for individuals with CBNP and depression and/or anxiety.

**Emotional reactions.** All participants reported currently experiencing or previously experiencing denial and anger regarding their CBNP and depression and/or anxiety. The former consisted of being unaware of the enduring and *chronic* nature of their diagnoses, as well as being unaware of how their diagnoses impacted their quality of life. At the time of the diagnosis of CBNP, and for some time after, participants believed that the CBNP and mental health symptoms were going to go away no matter what. At the early stages of diagnosis, participants believed that their struggles were only short-term. The dominant feelings of participants at this time included anger, impatience, annoyance, and jealousy of their pain-free counterparts. Due to the lack of awareness at this time, the diagnoses tended to consume the identities of the participants. At this time, participants also tended to blame themselves for their diagnoses. Following self-blame, participants desired to know what they did to cause their physical and emotional pain, particularly so they could *undo* or not repeat what they had done. The following excerpts demonstrate emotional reactance:
I was really mad at myself for a long time, because I was like “how did I do this? What the hell? Have I been secretly pushing myself down the stairs while I’m sleeping?” (laugh) (Participant C)

I don’t accept that [the pain], no. It is going to go away if I can do it. (Participant G)

I can acknowledge it [back pain], but I don’t want to admit that that is going to be a reality for me for the rest of my life or at least for the extended future. I mean I don’t know. I mean, as far as the back pain, I would really like for it to go way, to stop, like whatever is causing it, you know to stop, because I mean I am 26. I don’t want to feel like it is just going to get worse over time. (Participant J)

**Acceptance: An ebbing and flowing process.** Participants went back and forth on accepting parts of their experiences, and then attempted to integrate these experiences into a comprehensive self-concept, struggling between fully acknowledging their diagnoses, and not wanting to do so. For example, participant G reported that he had accepted his pain, depression, and anxiety, but then also stated that he expects them to “go away.” This statement is contradictory to the definition of acceptance. Essentially he is reporting that he will accept his diagnoses, but only with the caveat that they are short term.

Others indicated that they were no longer in complete denial, but still used their diagnoses as a rational to not fully live. This was illustrated by participant F:

There is accepting it [pain and depression] and, um, there is accepting it and letting it be your excuse for everything, but there is also accepting it and embracing it. (Participant F)

Participant F went on to describe how people have the tendency to become “stuck” after learning about the causes of their conditions. For example, she explained that a person with obsessive compulsive disorder (OCD) may find out that his OCD tendencies stem from past abuse. Participant F explained that it is important to refrain from using the cause (i.e., abuse) of a diagnosis (i.e., OCD) as an excuse to not put forth effort to reduce
problematic thoughts and behaviors (i.e., OCD symptoms). While she used the example of abuse and OCD to illustrate her point, she likened this example to the experience of CBNP and depression and/or anxiety:

It can be the reason why you have it [OCD], but ( . . . ) so many people get stuck right there, because they are like “well, now I have a reason. I have an excuse.” But you need to move past it and say “ok, I know the reason why I have it, but what I am going to do about it?” And I think the same things happen with pain and chronic conditions. So when you have a chronic condition, you may say “ok I have this and [I] know why I have it,” but it’s once again saying that “this is not going to define who I am.” (Participant F)

Moreover, participants sometimes contradicted themselves while discussing acceptance. For example, one participant discussed how he accepted his conditions and then discussed how he didn’t. Upon further examination of these instances, it was clear that some parts of the participants’ CBNP, depression, and anxiety were accepted under some circumstances, while still under negotiation in other circumstances. For instance, individuals may live life mostly accepting their conditions, but during a bad day or flare-up, may regress back to feelings of denial or anger. Another depiction of this process occurred when participants accepted one limitation (e.g., I will never be the athlete that I want to be), but did not accept another limitation (e.g., I will not be able to give birth). It appeared that different facets of the experience are processed at different paces, as illustrated by participant E:

I would say I have accepted that I will never be the athlete that I wanted to. Um, and I think I have accepted that I won’t look the way I used to, but I still haven’t fully accepted what my limitations are now.

**Negotiation of control.** Eventually, participants realized that they could not control certain aspects of their CBNP, depression, and anxiety. Thus, they no longer tried to change their circumstances, but instead integrated their limitations into their lives. In
essence, they learned to live with their pain. Their mindset changed from *fix it* to the mentality of *if you can’t beat em, join em*:

> I discovered that *you can’t direct a fish*, it’s just going to do its thing. I accept the lot I have been given, the body and life that I have been given, and now I work with it. (Participant I)

> Um, just through the persistent pain every single day- after a while it’s like “oh this is here to stay and I just have to make the best of it.” (Participant H)

> I would say I’ve accepted it. Like there is not a whole lot I can do to change it, short of dropping out of school and getting a bunch of rods in my back, which I totally do not want to do. That would interrupt my whole being and I don’t want to do that. So I kind of just have to deal with it. And same with like the anxiety and depression, it’s like, the only person that is going to get myself through it is me so I have to put that in my head and it *just happens*. Everything *happens*. (Participant C)

**Idealized acceptance.** At times throughout the interviews, participants briefly spoke about an idealized, stable level of acceptance, one that was beyond the realization that some things are just out of people’s control. Forty percent of the participants indicated that instead of acquiescence, a state of true or full acceptance may be possible. This higher level of acceptance meant that participants experienced their CBNP, depression, or anxiety as *normal*. Given that the severity of diagnoses remain the same, habituation to mental and physical pain may occur; however, should diagnoses change in severity, perhaps the whole process of acceptance would start again:

> I just have to realize that life goes on and it’s just kind of what I have to deal with day to day. So just keep going. It’s not like it’s going to get better so it’s just my *new normal* . I mean who knows, if it gets worse or one day I can’t walk because of it, obviously there will be a new path for me to take as far as acceptance, but as far as what I have right now, yeah. (Participant H)

Different from the habituation and normalization of CBNP and depression and/or anxiety is the notion that these diagnoses can actually be embraced. Based on the current data, it is hard to determine whether or not this is a possibility, because those who
discussed being able to embrace their conditions also discussed less accepting attitudes behind closed doors; that is, in public, these participants portrayed a persona that celebrated their unique challenges, but inwardly were emotionally hurting. Participant F reported that she fully embraced her diagnoses; however, her response below suggests a more complex experience:

> It’s not that I can’t be sad, but I always tell people that [that she is not sad]. Sometimes I wish I could show some of my sadness on the outside, because there is sometimes sadness that I feel on the inside but I don’t show it on the outside. When something really sad happens, I am not a person you will see cry very much, even though I might feel it intensely on the inside, but you will never see that on the outside, just because that is who I am.

**Future Plans**

Participants were asked how they planned to live life in the future with their co-morbid CBNP and depression and/or anxiety. Participants identified six future plans. Participants reported plans to (a) push through tough times, (b) take life day-by-day, (c) maintain a sense of hope, (d) maintain a healthy lifestyle, (e) operate with increased awareness, and (f) utilize or be role models. The following is a more detailed description of each intention.

**Pushing through the rain and the pain.** Ninety percent of the participants reported that they plan to “push through” (Participants B, D, E, F, and H) their CBNP and depression and/or anxiety. Pushing though was described by the participants as not allowing the pain, depression, or anxiety to stop them from completing daily tasks or activities. Participants explained that despite the pain, depression, or anxiety, they continued to function (e.g., attended work and school, ran errands, etc.). Participants discussed pushing through certain activities and time frames:
Just pushing through and throwing myself into theater when it gets bad, and (laugh) making that be the cause of stress instead of something worse. (Participant C)

It doesn’t necessarily stop me from doing things that I want to do, or even if it is terrible at work, I will just keep doing what I need to do regardless; I’ll just take more ibuprofen. (Participant H)

I just kind of push through the back pain and still do it. (Participant D)

Yes, and I know that I just need to push through if I don’t want to do something or I don’t think I can do it. I just need to fight myself and do it. (Participant E)

**Day-by-day.** Eighty percent of the participants reported that they plan to deal with their CBNP and depression and/or anxiety by taking challenges one step at a time or day-by-day. Participants explained that they never feel the same each day. Thus, they had to readjust their approach to life on a daily basis. Because so many factors contribute to the participants’ level of pain and mental health distress, they indicated that they have to *wait and see what happens* before deciding how to go about coping and managing life. For example, pain and mood levels depend on the obtained quality and quantity of sleep, current or past activity levels and durations, and stress levels. Changes in any of these factors may change the severity of pain and mood, and consequently change plans. In essence, it appears to be hard to plan at all when experiencing co-morbid CBNP and depression and/or anxiety due to the ever-changing nature of the experience. Similar to the day-by-day philosophy, participants also described a step-by-step philosophy. For instance, participants approached large tasks by breaking them down into many smaller tasks. For example, participant I broke down the large task of cleaning the whole house into doing a load of laundry and then re-evaluating her ability to continue housework.

The following are excerpts that demonstrate day-by-day and step-by-step philosophies:
I don’t feel the same every day. You know, some days I just really get isolative and pretty reclusive and I stay just to myself—kind of not feeling great emotionally or physically. And other times, I’m feeling a lot better. So I kind of base what I’m doing on that. (Participant B)

I mean there’s pain almost every day that I wake up. It’s just some days it’s really bad. Some days, it’s not so bad. It depends on the day. It depends on what I did the day before. Was I standing all day? Was I sitting all day? How did I sleep that night—all play big factors into it. So I mean it varies every day but there’s almost pain every day. (Participant D)

I am just taking it one step at a time. (Participant G)

I really try to manage it. Really just get up. Just do this one small thing, whether it be do the dishes or just put a small load into the washer or dryer, you know just do one. (Participant J)

**Hope.** Seventy percent of the participants reported that they plan to deal with their co-morbid CBNP and depression and/or anxiety by maintaining the hope that their future will be bright. Hope for the future often included the prospect that the CBNP, depression, or anxiety would subside, or at least not worsen. Participants talked about multiple treatment possibilities that were anticipated to make symptoms more manageable and less disruptive. Some treatment or coping strategies mentioned were surgery, nutrition therapy, relaxation, education, and exercise. The participants explained the importance of having confidence that they will have a fulfilled and meaningful life despite their conditions. They also referenced the need to have things to look forward to and to keep them motivated. The following excerpts demonstrated the role of having hope:

Hopefully the surgery will help me out, or at least reduce it [the pain] to a workable level. (Participant C)

I’m hoping I can find medication that helps the depression. And then the back, I’m hoping that, you know, hopefully it’ll start going away on its own, or at least get to the point where I can start exercising more to strengthen the muscles and get it to go away. (Participant D)
I mean, I am 20 years old and I still have plans for the future, and as long as I don’t screw it up *(laugh)*, I think I can have a pretty good life, so maybe as long as I don’t let it [the pain and depression] squash my motivation, I’ll be ok. (Participant H)

**Healthy lifestyle.** Sixty percent of the participants reported that they plan to live life more health conscious than they did prior to the onset of their CBNP and depression and/or anxiety. Participants recognized that self-care was a crucial ingredient to a happy future. For instance, future plans for self-care were exercising, obtaining proper sleep, maintaining a positive outlook, maintaining safe activity levels, and evaluating all decisions from a health or well-being standpoint. Participants explained that their physical health and mental health are connected and that proper care of one required nurturing the other. Due to their CBNP and depression and/or anxiety, participants felt a heightened responsibility to take care of themselves in an intentional way:

And so, I mean, definitely probably maintaining a healthy lifestyle where nothing—that I don’t do anything to more damage my health in a way that would make me more painful or anything like that. (Participant A)

Um, and to get back into exercising and forcing myself to exercise, which I think will help both my pain and my mood, if I can do everything correctly. Um, just making sure I get enough sleep and always having something around that will help me pull myself out of a bad mood. (Participant E)

I think that self-care piece makes a huge difference. (Participant J)

**Increased awareness.** Fifty percent of the participants reported that they plan to live life with their co-morbid CBNP and depression and/or anxiety with a heightened awareness of the self, their diagnoses, and their limitations. Participants planned to become or remain synchronous with the needs of their minds and bodies. They explained that being alert and paying attention to the relationship among their actions, thoughts, and feelings provided a catalyst for insightful decisions, and subsequently a happy future.
For instance, one participant planned to be mindful of his actions and thoughts that may increase or decrease his CBNP or depression. Another participant discussed how he planned to be aware of the science and physiology associated with back pain and anxiety. Other participants talked about being aware of their limitations and not pushing themselves too far beyond those restrictions. The participants also planned to be aware of the level of severity of their pain, depression, or anxiety. For example, the recognition that they were undergoing a flare-up was often enough to re-direct themselves toward a positive course of action, as opposed to a more damaging one (e.g., increased anger, interpersonal problems, substance use, etc.) Moreover, participants talked about being aware of their goals and motivators. Without all these forms of increased awareness, participants feared that they may become stuck in a negative experience or mindset. The emphasis on awareness is illustrated in the statements below:

I guess I’ve also accepted that sometimes I am just going to wake up and be more depressed. It helps now that I am aware that that’s what’s going on. So then I can cope with it or deal with it, rather than before, I was just continuing like that and didn’t realize that I was feeling that way. (Participant E)

I definitely feel like now I am more in control of it [depression]. I feel like right now, especially with this seasonal thing, I can feel it, but I know what it is. It’s like “okay I’m like whatever,” so that helps to know what it is. Just the awareness helps me to make it so much less of a problem. (Participant J)

**Role models.** Thirty percent of the participants reported that they either plan to be role models for others or plan to live life with influence from their own role models. One participant talked about using her mother as a role model to learn how to live a happy life with CP, depression, and anxiety. Because her mother also struggles with CP and mood issues, participant A trusted that her mother understood the experience of living with these diagnoses. She also believed that her mother was further along in the
process of acceptance. In participant A’s case, the importance of a role model consisted of (a) learning from those who have had more experiences with the diagnoses than she, and (b) having someone available to talk to, who understood her experiences first-hand.

Similarly, Participant J looked to her partner as a positive role model. She explained that no matter how tired he is, he will still do what he needs to do and this inspired and motivated her. Participant F described the importance of being a positive role model for her children. She wanted her children to see her as a positive example of how to overcome barriers. She wanted her children to know that they could do anything they wanted to without being defined by a condition or circumstance. Her son was diagnosed with kidney disease and it was important for her to show him that he can accomplish things despite his challenges, as she has done despite CBNP and depression. Participants F and J explained the importance of being or having a role model:

And just also trying to be a role model for my kids and then also, my son got diagnosed with a kidney disease, and I guess also wanting to make sure that I am a role model to him—that he can, he can do anything because he is losing his hearing and stuff like that and I don’t want that ever to define who he is. (Participant F)

Another thing is my relationship. I think it is really healthy for me at this point, because sometimes he helps me. Sometimes, without me even realizing it, he helps me like not get stuck because I see him like. For example, like no matter how tired he is, he will take the trash out. He doesn’t blow things off and it helps me like not do that too. (Participant J)

**Treatment Utilization**

As a group, the participants reported more than twice as many different strategies to treat their physical pain (18 strategies) than they did to treat their depression and/or anxiety (8 strategies). Tables 5 and 6 illustrate the different treatment strategies reported for each diagnosis and the percentage of participants who utilized each strategy. It
should be noted that the utilization of some treatment strategies for CBNP may be underestimated, particularly if those strategies took place at physical therapy, in which case, the participants may have only reported the strategy of “physical therapy,” instead of the specific strategy. For example, spinal decompression therapy and laser therapy are usually done within the context of physical therapy. Some participants named each strategy specifically and others may have lumped strategies within the umbrella term of physical therapy. These strategies are bolded.

Table 5

*Treatment Strategies for Chronic Pain*

<table>
<thead>
<tr>
<th>Strategy to treat CBNP</th>
<th>Percentage of participants who used each strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Consultation</td>
<td>100</td>
</tr>
<tr>
<td>Physical Therapy</td>
<td>100</td>
</tr>
<tr>
<td>Medication</td>
<td>100</td>
</tr>
<tr>
<td>Chiropractor</td>
<td>70</td>
</tr>
<tr>
<td><strong>Massage</strong></td>
<td><strong>60</strong></td>
</tr>
<tr>
<td><strong>Heat or Ice</strong></td>
<td><strong>60</strong></td>
</tr>
<tr>
<td><strong>Exercise, Stretching, or posture</strong></td>
<td><strong>60</strong></td>
</tr>
<tr>
<td>Cortisone Injections</td>
<td>30</td>
</tr>
<tr>
<td>Nutrition Therapy</td>
<td>30</td>
</tr>
<tr>
<td>Relaxation or Mindfulness</td>
<td>30</td>
</tr>
<tr>
<td>Acupuncture</td>
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</tr>
<tr>
<td>Psychotherapy</td>
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</tr>
<tr>
<td>Education About Condition</td>
<td>20</td>
</tr>
<tr>
<td>Surgery</td>
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</tr>
<tr>
<td><strong>Spinal Decompression or Traction</strong></td>
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</tr>
<tr>
<td>Alcohol or Marijuana Use</td>
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</tr>
<tr>
<td><strong>Tens Unit or Electrical Stimulation</strong></td>
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</tr>
<tr>
<td><strong>Laser Therapy</strong></td>
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</tr>
</tbody>
</table>

*Note.* Bolded variables may be underreported.
Table 6

*Treatment Strategies for Depression and Anxiety*

<table>
<thead>
<tr>
<th>Strategy to treat depression and anxiety</th>
<th>Percentage of participants that used each strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychotherapy</td>
<td>90</td>
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**Dissatisfaction With Treatment: The Band-Aid Effect**

All participants reported that none of the treatment options provided full relief or cured their CBNP, depression, or anxiety. Instead, they indicated that no strategy worked with 100% efficacy. Accordingly, participants experienced constant disappointments and frustrations as their hope faded away with each failed treatment prospect. Participants pointed out the irony in that their CBNP and depression and/or anxiety affected *everything*, yet the treatment fixed *nothing* permanently. Many experienced the treatments as covering up the problem like a *band-aid*. The treatments were reported to sometimes reduce or even take away the suffering for a few moments, but the issues always returned and, occasionally, in more problematic ways. The following quotes from participants C, E, F, and G illustrated this devastating experience that emerged:

“They did traction with me a lot, and that pulling kind of helps alleviate some pain but that—it’s one of those things that only lasts about 15 minutes. So it’s like “what now?” ( . . .) Yeah, there has been a lot of Band-Aids. (Participant C)
Well, it [massage therapy] worked temporarily. It may have temporarily relieved pain, but it didn’t fix the pain. Everything always came back after massage therapy. (Participant E)

I mean, after going to physical therapy, and different physical therapy, and going to a chronic pain clinic, and a specialist, and to a chiropractor, and then just—nothing! Nothing is helping and then, you know, feeling like no one can help me and feeling like you just have to give up. Nobody can help me. (Participant F)

I got an injection in my back. I was all excited. It didn’t do anything. Then I went and got another injection into that ruptured area again and it helped some, and then it started to come back again. Like, you never made it go away. It just helped some. (Participant G)

**Disconnection Between the Treatment of the Mind and Body**

As reported earlier, all of the participants reported that they identified and understood the powerful connection between their co-morbid CBNP and depression and/or anxiety. While they were able to verbalize deep insights about this connection, their awareness of the connection between their co-morbid diagnoses seemed to dissipate during the interview conversation regarding the *treatment* of their co-morbid diagnoses. Even though they reported that their pain affected their mental health symptoms and, likewise, that their mental health affected their level of pain, this reciprocity was not thematic in their views on treatment. The participants did not discuss the psychological effects of their pain with their medical health providers. Similarly, they did not think of attending psychotherapy with a pain psychologist in order to manage pain. Only one person (participant G) had attended psychotherapy with a pain psychologist for the treatment of pain, and even that was limited to two sessions. Participant G indicated that he attended psychotherapy with a pain psychologist in order to learn, as opposed to engage in psychotherapy. Furthermore, participants who were *already attending* psychotherapy for treatment of their mental health symptoms did *not* discuss their
physical pain with their mental health provider, even though their CBNP was impacting their mental health. While there may be many reasons for the underutilization of psychotherapy to manage pain, one reason may be because of the negative stigma that tends to be attached to mental illness, and subsequently mental health care.

For example, participant F suggested that a promising treatment modality for CBNP would be participation in a support group. The group that she described involved the components of Irvin Yalom’s traditional group psychotherapy (Yalom & Leszcz, 2005). These components were comparable to (a) the installation of hope, (b) universality, (c) imparting information, (d) altruism, (e) interpersonal learning, and (f) group cohesion (Yalom & Leszcz, 2005). After the participant explained the details of the group, the interviewer responded, “So kind of like group therapy,” which was followed by the dialogue below:

Participant F: I guess, in this type of a setting or structure [the interview/research setting], it is less intimidating than let’s say that if you call it group therapy. You know . . . that label. It’s more of a, you know, the label. It’s better to feel like you are doing something that’s constructive.

Interviewer: So more of a support group?

Participant: Yeah, even if you feel like, like even this [the interview]. This is for research. You feel like this is constructive because you are doing it for something, so just this aspect.

Psychotherapy was associated with a negative label, or as a treatment only for pathology. Accordingly, to participant F, psychotherapy was viewed as a place for unconstructive complaining, as opposed to constructive action.

Participants talked about CP and mental health distress simultaneously and as interconnected. They experienced CBNP and depression and/or anxiety as having circular etiology. In fact, because the participants viewed the relationship as so
intertwined, the interviewer often had to clarify which diagnosis (CBNP or mental health) the participants were referring to. Because treatment interventions for physical and mental health problems are usually developed, in part, from the understanding of etiological factors, and because the participants talked about the experiences of physical and mental health as connected, it was expected that they would also talk about the treatment of their physical and mental health problems as connected. In contrast, participants talked about the treatments for CBNP and depression and/or anxiety separately and as conflicting. When participants discussed their perceptions of the causal factors of pain, they discussed factors related to both pain and mental health. Likewise, when participants discussed their perceptions of the causal factors of depression and anxiety, they discussed factors related to both pain and mental health again. In contrast, when participants discussed their perceptions of how to treat pain, they discussed only factors of pain or physical health. Likewise, when participants discussed their perceptions of how to treat depression and anxiety, they discussed only factors of mental health.

Summary of Findings: Textural and Structural Descriptions

This chapter explained how individuals experienced, understood, and drew conclusions about the relationship between their co-morbid CBNP and depression and/or anxiety. This chapter also explained how the participants experienced being interviewed about their CBNP and depression and/or anxiety. All participants perceived their mental health and physical pain as affecting one another. They reported that the severity of pain, depressive, and/or anxiety symptoms have a direct and positive relationship. All participants experienced their pain as preceding their depressive and/or anxiety
symptoms. Participants described the relationship between CBNP and depression and/or anxiety as cyclical. They also explained that, at some point, the diagnoses began to blur together, making it hard to know where one diagnosis started and another ended.

Also, participants perceived five underlying mechanisms that affected the relationship between their CBNP and depression and/or anxiety. The individualized experiences of disability, tension, vulnerability, thought patterns, and stress contributed to the participants’ overall understanding of their co-morbid CBNP and depression and/or anxiety. They described stress as a particularly complicated variable, because they viewed the consequences of stress as unique to those who have both CBNP and depression and/or anxiety. In addition to stress, participants observed that navigating institutions, conflicting treatment protocols, identity changes, invalidation and isolation, and lethargy were all experiences that unfolded in unique ways for individuals with CBNP and depression and/or anxiety.

In addition, all participants reported that the opportunity to talk about their CBNP and depression and/or anxiety was beneficial. Accordingly, 9 out of 10 participants rated their experience as positive, and the 10th rated the opportunity as neutral. The participants indicated that the interview opportunity provided (a) a non-judgmental space to discuss their experiences, (b) an opportunity for reflection and insight, (c) an opportunity to take action or do something about their conditions, and (d) an opportunity to help others. Themes that emerged included insights around coping strategies, the process of acceptance, future plans, treatment utilization, dissatisfaction with treatment outcomes, and the disconnection between the treatment of the mind and body, despite prescribing to a perspective that the mind and body are connected.
The essence of the experience of living with co-morbid CBNP and depression and/or anxiety was not restricted to certain contexts, but instead transcended all contexts and domains. The participants’ experiences of the phenomenon were all-encompassing. The phenomenon affected all parts of their lives such as level of independence, capabilities, hobbies, physical activity, exhaustion level, motivation, concentration, productivity, responsibilities, self-concept, relationships, thinking patterns, financial status, overall stability, health, sleeping, eating, and going to the bathroom. Furthermore, the phenomenon occurred within all domains of their lives such as home, work, school, institutions, travel, places of worship and business, and in their communities.
CHAPTER V
DISCUSSION

This chapter is divided into three sections. Section one is a discussion about the essence of the participants’ lived experiences of co-morbid CBNP and depression and/or anxiety. In addition, the first section is a discussion about the implications of the current findings as they relate to (a) the research questions, (b) the existing research, and (c) health practitioners’ work with individuals who have CBNP and depression and/or anxiety. Each heading in section one represents a discussion topic that was essential to the participants’ stories. Each topic of discussion concludes with a review of the associated implications for medical and mental health professionals who are working with this population. It is hoped that this discussion will facilitate medical and mental health professionals’ (a) understanding of the lived experience of CBNP and depression and/or anxiety, and (b) ability to deliver efficient and effective services to individuals with co-morbid CBNP and depression and/or anxiety. Because medical and mental health professionals have different scopes of practice, all recommendations or implications will not apply to all disciplines; however, due to the multidisciplinary nature of pain management, each discipline should be familiar with general standards of care. In specific regard to counseling psychologists, their core components of training correspond well with the needs of CP populations (Hession, 2010). Counseling psychologists’ emphasis on the therapeutic alliance, empathy, meaning-making, career development, empowerment, prevention, and strength-based intervention are needed in order to improve the quality of lives of individuals with CP and mental health distress (Hession,
The second section of this chapter is a review of the limitations and strengths of this exploratory study. The third section consists of recommendations for future research.

**Participants’ Lived Experiences and Clinical Implications: Section One**

The purposes of this exploration were to (a) utilize methodology that reflects the subjective nature of emotional and physical pain; (b) better understand how/if individuals with CBNP perceive the/a relationship between physical pain and mental health; (c) understand how participants perceive talking about their co-morbid CBNP and depression and/or anxiety; (d) give this population a voice, because they are often silenced, delegitimized, and isolated; and (e) aid practitioners in the development of effective interventions and quality treatment protocols for individuals with co-morbid CBNP and depression and/or anxiety. Practitioners are likely to continue delegitimizing and invalidating individuals with CBNP and depression and/or anxiety unless they understand their detailed lived experiences (Lavie-Ajai et al., 2012). The following discussion of the participants’ lived experiences and corresponding clinical implications are organized within the contexts of 11 themes: (a) etiology, (b) the underlying mechanisms of co-morbid CBNP and depression and/or anxiety, (c) system/institution navigation, (d) conflicting treatment philosophies and protocols, (e) identity deconstruction and reconstruction, (f) the process of acceptance, (g) invalidation and isolation, (h) lethargy, (i) coping and future plans, (j) experiences of discussing CBNP and depression and/or anxiety, and (k) resiliency.

**Etiology and Co-morbid CBNP and Depression and Anxiety**

As explained in Chapter II, quantitative researchers (Ahman & Stalnacke, 2008; Bair et al., 2008; Blackburn-Munro & Blackburn-Munro, 2001; Brown, 1990; Castro &
Daltro, 2009; Currie & Wang, 2005; Edwards et al., 2003; Ericsson et al., 2002; Fishbain et al., 1997; Godfrey, 2007; Gormsen et al., 2010; Greenberg & Burns, 2003; Lyons & Beilock, 2012; McWilliams et al., 2003; Nagakura et al., 2009; Narita et al., 2006; Tennen et al., 2006; Theunissen et al., 2012; Vowles et al., 2004) have come to the consensus that there is a direct and positive relationship between CP and depression and anxiety; however, the lived experiences of individuals with CP were not reflected in the researchers’ methodology that led to that consensus. The current phenomenological investigation of participants’ lived experiences with co-morbid CBNP and depression and/or anxiety supported the previous findings. The participants understood their CBNP and depression and/or anxiety as directly and positively related. Thus, the findings of this study provided additional support that the experiences of CP and depression and anxiety are directly correlated.

After the correlation between CP and depression and anxiety was established, researchers wondered about causation. Does CP cause depression and anxiety (the linear, cause and effect, consequence model)? Do depression and anxiety cause CP (the linear, cause and effect, vulnerability model)? Do they both cause each other (the systemic reciprocal model)? As discussed in Chapter II, some researchers (Blackburn-Munro & Blackburn-Munro, 2001; Brown, 1990; Nagakura et al., 2009) have found support for the linear, cause and effect, consequence model of causality, and others (Currie & Wang, 2005; Ericsson et al., 2002; Lyons & Beilock, 2012; Martin et al., 2007a) have found support for the linear, cause and effect, vulnerability model of causality. Because the consequence and vulnerability models of causality are both empirically supported, some
researchers recommend treating co-morbid CP and mental health problems from both
directions, or utilizing a systemic reciprocal model of causality (Godfrey, 2007).

The question of perceived directionality and multidimensional causality. The
participants in the current study reported a different understanding of causality between
CBNP and depression and/or anxiety than reported by previous researchers (Blackburn-
Munro & Blackburn-Munro, 2001; Brown, 1990; Currie & Wang, 2005; Ericsson et al.,
2002; Godfrey, 2007; Lyons & Beilock, 2012; Martin et al., 2007a; Nagakura et al.,
2009). The key differences were that participants’ understanding of causation depended
on time and was dynamic. At the earlier stages of diagnosis, participants believed that
their CBNP was the cause of their depression and/or anxiety (the linear, cause and effect,
consequence model). During later stages of diagnosis, the participants believed that their
CBNP caused their depression and/or anxiety and that their depression and/or anxiety
affected their CBNP (the systemic, reciprocal model). As time went on, participants
experienced the cause of CBNP and depression and/or anxiety as cyclical, recursive,
time-sensitive, and multidimensional. Perhaps a multidimensional model of causality is
necessary. For example, in the excerpt below, participant F described how her pain
initially caused depression (the linear, cause and effect, consequence model), and then
she described how the CBNP and depression affected each other (the systemic, reciprocal
model):

Well, I think a person who has pain, chronic pain, is more likely to have the
depression whether they know it or not, because when you are in pain, you just,
it’s hard to live up to the expectation of what you have to do (. . .) so I think
people with chronic pain, whether they know it or not, they are going to be
depressed (. . .). Once you get into that pain, then it becomes just a snowball
effect, because you’re in pain so you’re sleeping and because you’re not able to
do anything, you are depressed and so it was just a cycle. (Participant F)
The following section is directed toward medical and mental health professionals who are working with individuals who have CBNP and depression and/or anxiety. Given the participants’ experiences of multidimensional causality, guidelines for treating CBNP and depression and/or anxiety may need to include attending to the linear, cause and effect, consequence model during the earlier stages of diagnosis, and to the systemic, reciprocal model during the later stages of diagnosis. The findings suggested that individuals with co-morbid CBNP and depression and/or anxiety originally believe that their mental health symptoms are caused by their pain, and later believe that pain and mental health symptoms affect each other. Because it is important to incorporate individuals’ perspectives into their treatment plans (Henkelman & Paulson, 2006), the proposed tentative multidimensional perspective may have implications on the development of effective interventions. Moreover, understanding the individuals’ etiological perspectives may prevent misunderstandings and treatment non-compliance from occurring (Henkelman & Paulson, 2006). The understanding of how individuals view the causes of their diagnoses allows practitioners to address these individual perspectives and create a collaborative partnership.

The Underlying Mechanisms of the Relationship

The participants reported five variables that either impacted or explained their experiences of co-morbid CBNP and depression and/or anxiety. These variables were described as the underlying mechanisms that affected the intensity and direction of the perceived relationship between participants’ CBNP and depression and/or anxiety. The reported underlying mechanisms were the individualized experiences of (a) disability, (b) tension, (c) vulnerability, (d) cognitions, and (e) stress.
Disability. Similar to previous research (Bair et al., 2008; Cohen et al., 2010; Munce et al., 2007; Stewart et al., 2003; Walters & Williamson, 1999) with individuals who have CP, all of the participants reported experiencing disability; however, the participants described disability in a more detailed way than previous researchers have. Because disability can be defined in many ways, and because level of perceived disability is subjective, quantitative measurement of disability is not always accurate. For example, quantitative researchers (Munce et al., 2007; Stewart et al., 2003) have used absenteeism as an indicator of disability; however, the participants in this study revealed a much more complex definition of disability. Each participant measured their perceived level of disability differently, and each perceived level of disability affected each person differently. Participants explained that their perceived levels of disability (a) prevented them from completing desired or necessary tasks, which increased their anxiety or depression; and (b) prevented them from completing activities in order to ameliorate already existing depression or anxiety. These 10 participants reported experiencing disability in over 60 ways, each of which lowered their perceived quality of life. The following quotes from participants illustrate the varying degrees and complexities of disability:

Yeah, I mean when I sit down—I’m actually experiencing it right now—my left leg will fall asleep rather quickly. Like when I go to the bathroom, if I’m sitting for longer than five minutes, I can’t stand up. (Participant D)

I know that if I keep going as I am now, if it [the back pain] keeps getting worse, I won’t be able to have kids (. . .). It’s the kind of thing that like if I put too much stress on my back or I bend over in a weird way, I can lose my legs and if I were to get pregnant right now, I wouldn’t have legs anymore basically. And that’s really frightening. (Participant C)
People laugh but probably one of the most challenging things to do on a daily basis is vacuuming, because when you vacuum it’s one handed and it requires your spine to twist. Well, my spine doesn’t do that anymore. (Participant B)

I used to golf. I can’t golf because of my shoulders. I used to play tennis—can’t play tennis because of my back and my shoulders. Stuff like that. (Participant A)

I can’t lie down, and I can’t sleep, and I can’t walk, and I can’t sit down and it is ridiculous. (Participant G)

**Tension.** All of the participants reported that the experience of physical and mental tension increased the intensity of the relationship between CBNP and depression and/or anxiety. Researchers of CP often refer to tension as a *normal* physiological response to pain that involves the tightening of muscles (Treede et al., 2008); however, participants with CBNP and depression and/or anxiety experienced a more complex version of tension. Tension was experienced by the participants as feelings of strain, suspension, or bottled-up energy, which often led to anger. The participants’ descriptions of the aforementioned feelings suggested that individuals with CBNP and depression and/or anxiety may experience tension as more complex than a simple physiological response to pain. The participants’ experiences resembled what Lavie-Ajayi et al. (2012) termed *narratological distress.* They defined narratological stress as the unique emotional tension created by CP, specifically, the tension between two, often contradictory experiences of a pain condition (Lavie-Ajayi et al., 2012). In addition to their complex experiences of tension, participants also reported more traditional experiences of tension. For instance, participants reported that tension resulted in the tightening of muscles, which, in turn, increased pain, which then increased depression and/or anxiety.
**Vulnerability.** All of the participants experienced vulnerability within the relationship between CBNP and depression and/or anxiety. Because they were in physical pain and mental health distress, they felt susceptible to being even more physically or emotionally hurt. Authors who have expertise in treating individuals with CP have previously reported the correlation between CP and feelings of vulnerability (Berry, 1995). Similarly, the fear of being physically injured, beyond their current level of pain, is comparable to the previously researched variable of health anxiety (HA). HA refers to excessive worry or fear, which stems from the belief that one’s physical health is threatened. HA has been shown to be directly and positively correlated with CP (Greenberg & Burns, 2003; Tang et al., 2007).

In addition to health anxiety, the participants experienced an overall sense of vulnerability that extended beyond their physical health and included their mental health. It appeared that this vulnerability was not the result of cumulating HA and fears of insanity, as one might expect, but was a unique and specific type of vulnerability. For instance, in addition to HA, participants felt as though they were susceptible to assault, embarrassment, criticism, and immorality. Participants explained that the relationship between CBNP and depression and/or anxiety contributed to the overall feeling that they could be, or would be, physically or emotionally hurt by others.

**Cognitions.** The participants described having negative and racing thoughts about their CBNP and depression and/or anxiety. These thoughts were experienced as either a cascading event of upsetting thoughts that worsened symptoms and fueled the pain–mood cycle, or as a debilitating mental block. If negative thought processes were stopped after mindful recognition of the pain, then the cycle would not be fueled in the
same way, which is consistent with the principles put forth by Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 2011). Similarly, the participants explained that CBNP and mental health symptoms subsided when they were able to restructure and reframe their negative cognitions. The participants’ experiences were similar to the previous findings of CP researchers. Thinking patterns have been shown to impact CP (Ehde, Dillworth, & Turner, 2014), depression, and anxiety (Hollon, Stewart, & Strunk, 2006). Participant J sums up the participants’ experiences with ill-natured thoughts:

I have a lot of negative thoughts that I had to struggle with for a long time. I had a lot of racing thoughts (.), like I start on a project and there will be like this mental block, and it will stop me. (Participant J)

**Stress.** All of the participants reported having unique and extensive experiences with stress. The participants described a more complex experience of stress than previous researchers (Blackburn-Munro & Blackburn-Munro, 2001; Jordan et al., 2007; Lavie-Ajayi et al., 2012) have reported among individuals with CP. The participants viewed the affects of stress as more detrimental to individuals with co-morbid CBNP and depression and/or anxiety, as opposed to individuals that did not have both physical and emotional concerns. They perceived the additive affect of CP stress and mental health stress as both a cause and an effect of co-morbid CBNP and depression and/or anxiety. The participants also shared that this unique experience of stress affected all other contexts and domains within the lived experience of CBNP and depression and/or anxiety. For this population, stressors and traumas were heightened and frequent, because their minds and bodies were already distressed in their natural states. Participant D briefly sums up the all-encompassing nature of stress:
It’s all dependent on my stress level. (Participant D)

The following section is directed toward medical and mental health professionals who are working with individuals who have CBNP and depression and/or anxiety. Currently, the underlying mechanisms of co-morbid CP and depression and anxiety are not clear (Godfrey, 2007). These mechanisms became somewhat clearer after exploring the lived experiences of co-morbid CBNP and depression and/or anxiety. According to the participants’ experiences, practitioners should assess disability, tension, vulnerability, cognitions, and stress in order to identify specific underlying variables of concern and direct interventions accordingly. In addition to assessment, specific treatment protocols are needed in order to effectively understand idiosyncratic experiences of disability, tension, vulnerability, cognitions, and stress.

Because participants reported that high levels of disability, tension, vulnerability, negative thinking, and stress (a) increase the intensity of co-morbid CBNP and depression and/or anxiety, and (b) fuel the detrimental pain-mood cycle, measures should be taken to reduce the perceived levels of the aforementioned variables via medical or mental health care. Essentially, practitioners need to be aware of the personal, social, and emotional adjustment that occurs among individuals with co-morbid CBNP and depression and/or anxiety (Gudmannsdottir & Halldorsdottir, 2009). Examples of possible interventions that may be utilized are (a) developing new enjoyable activities or altering old activities based upon perceived disability levels; (b) engaging in progressive muscle relaxation to reduce tension (Baird & Sands, 2004); (c) delivering education about the adaptive function of vulnerability, or working to increase locus of control (Axelrod, 2009); (d) restructuring cognitions (Ehde & Jensen, 2004); and (e) teaching

System/Institution Navigation

Participants identified system navigation as a unique challenge, specific to individuals with co-morbid CBNP and depression and/or anxiety. A system or institution refers to an organization, business, or establishment that is dedicated to the promotion of a particular service, cause, or program. The participants considered navigating systems as a unique challenge, because they believed that this particular challenge was not experienced, or not experienced in the same way, by individuals with only one condition (i.e., individuals with CBNP, but not mental health problems or vice versa). Some of the systems and institutions that participants reported having problematic experiences with were doctors’ offices, insurance companies, pharmacies, hospitals, and airlines. The participants described the lived experiences of navigating these systems with co-morbid CBNP and depression and/or anxiety as a discriminatory, delegitimizing, stressful, overwhelming, and a complicated battle. Essentially, they perceived these institutions as dehumanizing. There is a dearth of research related to system navigation and CP; however, Walker, Holloway, and Sofaer (1999) conducted a phenomenological analysis among individuals with CP who were seeking treatment within pain clinics. Similar to the participants in this study, Walker et al. reported that participants in their study became “entrapped within the medical, social security, and legal systems” (p. 621). They reported that these systems, which were supposedly designed to support these persons with CP, “rendered participants powerless, helpless, and angry” (Walker et al., 1999, p. 621).
The following section is directed toward medical and mental health professionals who are providing services, particularly through an institution or business, to individuals with co-morbid CBNP and depression and/or anxiety. The following recommendations may seem logical and accessible through common sense; however, the participants’ experiences, in this study and in Walker et al.’s (1999) study, suggested otherwise. The participants advocated that systems, institutions, and businesses should be easy, or at least tolerable, to navigate. Services that are provided for individuals with CBNP and depression and/or anxiety should not add stress and barriers for this already struggling population (Gudmannsdottir & Halldorsdottir, 2009). For example, participants wanted forms to be concise and paperwork not to be lost. They wanted polite etiquette and empathy to be used by personnel. They did not want personnel to pass the buck or continuously refer them to other personnel to be helped. The participants wanted responsiveness from systems and institutions. Such responsiveness requires that systems and institutions be organized in a way that allows individuals to receive the information and help that they need without playing the role of a persistent detective.

Participants reported interactional experiences with health care providers that were dismissive and negative. Similar to past findings (Briscoe, 2000), participants interpreted these dismissive and negative attitudes as indications that the provider was burdened and inconvenienced by them. The participants especially perceived these reactions from practitioners when their pain, depression, or anxiety were not subsiding. In order to comply with best practice protocols, it is important for practitioners to be mindful of if and how they communicate frustration, exasperation, and annoyance to individuals with CBNP and depression and/or anxiety. It may be even more important to
be mindful of unintended communication when their conditions (e.g., level of pain) are not subsiding at an expected rate. Individuals with CBNP and depression and/or anxiety are already disappointed and frustrated enough by their own failed expectations of improvement without having practitioners add to their level of disappointment and irritation.

The need for change goes beyond the previously discussed individual interactions and calls for systemic change through advocacy (Lavie-Ajayi et al., 2012). Practitioners have an ethical responsibility to advocate for the individuals with whom they are working. It is especially important to advocate for individuals with co-morbid CBNP and depression and/or anxiety because of the stigmatization, discrimination, and systemic barriers they confront. Community-specific and nationwide action plans are needed in order to raise awareness and initiate societal change (Lavie-Ajayi et al., 2012). Systemic change is needed in order to reduce the number of silencing barriers that this population experiences (Briscoe, 2000; Gudmannsdottir & Halldorsdottir, 2009). Individuals who are already in pain should not leave establishments feeling insulted, unheard, discriminated against, beaten down, and angry, as the participants in this study revealed.

Participant B chose to be interviewed for this study as a form of social protest. She indicated that she wanted to raise awareness about the discrimination that people with CP and depression and/or anxiety are subjected to:

Participant B: It [discrimination] isn’t good. We have a long way to go to really get sensitive to what people need when they deal with chronic pain and depression, which is why I wanted to come and talk to you since you’re doing this study.

Interviewer: Yes, I’m really glad you did. Do you have any idea of how [we] could have political change, or could raise awareness?
Participant B: Well, I think when they were working on some of the legislation to change this [narcotic laws], I definitely wrote to people and let them know my thoughts. I talked to my doctor quite a bit about it. She had some, you know, she asked me some questions about it. So I—you know, I think there’s things like that that people can do. But I don’t know, there’s a lot of countries where they don’t regulate medications like we do and they don’t have the kind of addiction problems we have either. It’s like, you know, if I really want drugs, I’m going to get them, and it’s not going to be from a pharmacy ( . . . ) but I don’t like being treated like I’m kind of a criminal person.

Participant F took action when she was discriminated against by an airline employee:

I wrote to the airlines, because I don’t feel like it was the airline’s fault, but it was just him [the employee]. To him, I just said “it was me” [she was the person who was disabled], and then I wrote to the airline saying that I think he needed sensitivity training.

These two women demonstrated self-advocacy. Similarly, practitioners may write to companies, institutions, businesses, or politicians in order to give this population a voice. It is also important to pay attention to the issues (e.g., laws) that affect individuals with CBNP and depression and/or anxiety in order to decipher what issues are in need of the most support. Other examples include lobbying for insurance companies to cover massage therapy, fighting for workers compensation to be awarded, or educating communities and special interest groups about the plight of individuals with CBNP and depression and/or anxiety. Stakeholders’ efforts should be directed toward dispelling stereotypical myths and teaching an anti-discriminatory philosophy, which will help this silenced population be heard.

**Conflicting Treatment Philosophies and Protocols**

Participants identified navigating conflicting treatment protocols as a unique challenge, specific to individuals with co-morbid CBNP and depression and/or anxiety. The participants considered navigating conflicting treatment protocols as a unique challenge, because they believed that this challenge was not experienced, or not
experienced in the same way, by individuals with only one condition (i.e., individuals with CBNP, but not mental health problems or vice versa). According to participants’ experiences, the prescribed treatment strategies and advice for CBNP and depression and/or anxiety often conflict. For example, participant B reported that taking pain medication reduced her pain intensity, but increased her depression and anxiety. Participants also experienced conflicting treatment protocols and advice from the same practitioner. For instance, participant D received three different interpretations of the same X-ray, and participant H was told to be relaxed and rigid at the same time.

In addition, an ideological conflict between medical and mental health epistemology emerged from the participants’ responses. According to the participants, medical professionals often communicated that CBNP were short-term conditions that could be cured. In contrast, participants indicated that mental health professionals tended to treat depression and anxiety as long-term conditions that could be improved and then maintained. Furthermore, participants described the additive effects of treating both physical and emotional pain. They indicated that resources were not always available (i.e., time and money) to treat either condition fully.

The following section is directed toward medical and mental health professionals who are providing a service to individuals who have co-morbid CBNP and depression and/or anxiety. Because of the cyclical relationship between CBNP and depression and/or anxiety, it is usually important to make sure that the treatment of one condition does not worsen another. In the case of an exception, a conversation with the individual should take place regarding the risks and benefits to each condition. These risks need to be fully explained to the individual, because informed consent is an ethical mandate.
This, of course, means that practitioners must be aware that some treatments for pain may worsen mental health symptoms and vice versa. Because it is not practical for all mental health professionals to know about CP, nor is it practical for all pain management specialists to know about mental health, a multidisciplinary treatment model is recommended (Flor, Fydrich, & Turk, 1992; Keller, Ehrhardt-Schmelzer, Herda, Schmid, & Basler, 1997; Singh, 2005). There is a dearth of information regarding the lived experiences of CP and conflicting treatment protocols; however, conflicting treatment has been cited as a reason to utilize a multidisciplinary approach when treating persons with CP (Flor et al., 1992; Keller et al., 1997; Singh, 2005).

According to the participants, synchronized treatment and a multidisciplinary approach to working with individuals with CBNP and depression and/or anxiety should be implemented. Individuals should be asked if they are being treated elsewhere for the same or other conditions. This information provides the practitioner with either an opportunity to align treatment philosophies with other practitioners, or warn the individual that philosophies may not align, and encourage open communication about this topic. Pending releases of information, it is important for all practitioners who are working with the same individual to be in communication in order to create a solid team that is best suited to help that individual.

Unfortunately, providers are not always reimbursed for time spent communicating with other providers; however, multidisciplinary teams are essential in order to conduct ethical work with individuals who have co-morbid pain and mental health distress (Flor et al., 1992; Keller et al., 1997; Singh, 2005). If practitioners are (a) not trained to work with dual diagnoses, (b) do not feel comfortable navigating the many variables associated
with the co-morbidity of CP and mental health, or (c) are not willing to actively participate on multidisciplinary teams, regardless of compensation, then referral is recommended.

Furthermore, being a member of a multidisciplinary team includes acknowledging the stress that individuals may be experiencing from working with multiple providers. Practitioners should be sensitive to the additive costs of having CBNP and depression and/or anxiety. Time spent at appointments and treatments, and money spent on co-pays, deductibles, and out-of-pocket fees are cumulative. While practitioners cannot always change these circumstances, they can understand the struggle and take it into consideration when creating the most effective treatment plan.

**A Tentative Model for Identity: Deconstruction and Reconstruction**

Participants identified deconstruction of their self-concepts as a unique challenge, specific to individuals with co-morbid CBNP and depression and/or anxiety. The participants considered the deconstruction and reconstruction of their self-concepts as a unique challenge, because they believed that these identity challenges were not experienced, or not experienced in the same way, by individuals with only one condition (i.e., individuals with CBNP, but not mental health problems or vice versa). Similar to previous findings (Smith & Osborn, 2007), all of the participants reported that experiencing co-morbid CBNP and depression and/or anxiety had impacted their self-concept. They reported that their lived experiences of CBNP and depression and/or anxiety changed who they were via fluctuations in interpersonal styles, confidence levels, self-esteem, capabilities, strengths, responsibilities, worldviews, and overall personalities.
The reported identity changes followed a structural pattern of *deconstruction* and *reconstruction*.

Initially, the onset of CBNP, depression, or anxiety *broke down or deconstructed* the participants’ sense of self by taking away or complicating the essential building blocks of their self-concepts. For instance, prior to experiencing CBNP and depression, participant E viewed himself as an athlete. After the onset of CBNP and depression, he was no longer able to participate in sports the way he had before, and thus was left with a deconstructed sense of self. Deconstruction was followed by a series of steps to either rebuild or modify the lost identity (*reconstruction*). For example, participant E may not be able to play sports like he used to, but he may be able coach, thus nourishing that part of his identity, while still respecting the new limitations. The experiences of deconstruction and reconstruction are most similar to the previous findings of Smith and Osborn (2007). They conducted a phenomenological study of CP and sense of self, and reported that CP had debilitating effects on participants’ identity and self-esteem.

In addition to deconstruction and reconstruction, all participants indicated that, at times, they *over-identified* with their diagnoses, and at other times, *denied* that their diagnoses impacted their identities. Participants indicated that both extremes, enmeshed identities with their diagnoses and denial of their diagnoses, were associated with more intense and severe experiences of pain and mental health symptoms. The participants’ experiences of enmeshed identities corresponds to Snelgrove et al.’s (2013) previous findings that individuals with CP are likely to experience enmeshed identities, especially if they focus on the physiological causes of pain. Participants experienced the aforementioned identity changes as confusing and all-encompassing. They explained that
it was difficult to be the self that they once identified with, and almost impossible to function in the world as their whole being.

The following section is directed toward medical and mental health professionals who are providing a service to individuals with co-morbid CBNP and depression and/or anxiety. The structural pattern of deconstruction and reconstruction may be utilized as a framework when attempting to understand issues of self-concept within persons who have co-morbid CBNP and depression and/or anxiety. Due to the loss associated with deconstruction, this paradigm suggests that treatment protocols should help individuals cope with initial losses and bereavement (Jordan et al., 2007; Walker, Sofaer, & Holloway, 2006). The participants’ experiences of loss and identity confusion concur with previous findings that loss is associated with CP (Jordan et al., 2007; Ruddy et al., 2008; Smith & Osborn, 2007; Snelgrove et al., 2013; Walker et al., 2006).

Treatment should also aim to help individuals rebuild their sense of self (Smith & Osborn, 2007). Because individuals may be overwhelmed with loss, new activities or options should be suggested in order to expand individuals’ ability to reconstruct a well-rounded and satisfying self-concept. Similarly, it is important to help individuals with co-morbid CBNP and depression and/or anxiety find a balance between over-identifying with their diagnoses and denying that they exist.

Moreover, identity seemed to be associated with acceptance of CBNP and depression and/or anxiety. Other researchers (Smith & Osborn, 2007) have reported similar findings; however, the underlying mechanisms of the association are not clear. The following section is a discussion of participants’ experiences of acceptance. Four tentative stages of acceptance are proposed, and related issues of identity at each stage
are summarized. This tentative four-stage model is a function of the acceptance process and involves the deconstruction, reconstruction, and integration of identities.

Acceptance

Within the context of CP, acceptance refers to the ability to acknowledge and be content with conditions, particularly those that may not change. Participants were asked what their reactions were to the concept of acceptance, in relation to their CBNP and depression and/or anxiety. Participants described acceptance as an ebbing and flowing process that was plagued with emotional reactions and battles for control over their minds and bodies.

After participants’ responses were coded, it appeared that the lived experiences of acceptance, within the context of co-morbid CBNP and depression and/or anxiety, consisted of four tentative stages. The first three stages (denial and anger, contradiction and negotiation, and compliance and cooperation) were explained in detail by the participants, whereas the fourth stage, full acceptance, was simply mentioned by the participants. It appeared that the fourth stage was an idealized state, as opposed to a common experience of the participants.

Researchers have reported that the acceptance of CP is directly and positively associated with quality of life (McCracken & Zhao-O’Brien, 2010; Smith & Osborn, 2007). Individuals are more able to enjoy life with CP when they are willing to have higher levels of undesirable mind and body experiences (McCracken & Zhao-O’Brien, 2010). Acceptance is also associated with lower levels of disability, and thus regarded as an important component to behavioral change in persons with CP (Vowles et al., 2007). While there are assessment tools that were designed to quantitatively measure acceptance
within the CP population, some researchers (Lauwerier et al., 2015) reported that these measures lack content validity. Lauwerier et al. (2015) further explained that the factors of acceptance are not equally represented in these inventories. For example, acceptance of CP involves disengagement from pain control, pain willingness, and engagement in activities other than pain control; however, items measuring pain control are over-represented, compared to other components of pain acceptance (Lauwerier et al., 2015).

Other researchers (Nicholas & Asghari, 2006) agree that typical measures used to assess acceptance of CP, such as the Chronic Pain Acceptance Questionnaire (CPAQ; McCracken, Vowles, & Eccleston, 2004), do not adequately measure levels of CP acceptance. Nicholas and Asghari (2006) reported that acceptance among individuals with CP is a broader phenomenon than these common inventories are designed to assess. For example, the pain willingness subscale of the CPAQ is not robust and may need to be discarded or modified (Nicholas & Asghari, 2006). The current phenomenological exploration of the actual lived experiences of acceptance allowed for a robust understanding of acceptance through the eyes of individuals with co-morbid CBNP and depression and/or anxiety.

**A tentative stage model for acceptance.** A stage model assumes that (a) individuals move through a series of predictable stages regarding a phenomenon, and (b) each stage is quantitatively different from the others. The participants described their acceptance of CBNP and depression and/or anxiety as a sequential and dynamic process. The participants explained that the process of acceptance was a complicated journey that cycled through four stages. These tentative stages were (a) denial and anger, (b) contradiction and negotiation, (c) compliance and cooperation, and (d) full
acceptance. The tentative stage model provides a specific framework in order to understand the process of acceptance among individuals with co-morbid CBNP and depression and/or anxiety.

Previously, researchers (Henwood et al., 2012) have identified six phases of acceptance of CP, among individuals with spinal cord injuries, but without any recorded mental health issues. Henwood and colleagues’ (2012) proposed phases were (a) comprehending the perplexity of CP, (b) seeking pain resolution, (c) acknowledging pain permanence, (d) redefining core values, (e) learning to live with the pain, and (f) integrating pain into daily life.

The remainder of this section will describe the current participants’ experiences at each of the four proposed tentative stages of acceptance, and each stage will briefly be compared to Henwood and colleagues’ (2012) phases of acceptance. It is important that the reader remember that these comparisons are made between two different populations. Henwood et al.’s six phases emerged from the phenomenological exploration of the lived experiences of individuals who have CP from spinal cord injuries, while the proposed four-stage model emerged from the lived experiences of individuals in this study with co-morbid CBNP and depression and/or anxiety. The reason for comparison is to highlight possible universal factors of acceptance of CP, and also to note possible differences in acceptance of CP among different populations.

It is also important to be aware that participants’ levels of acceptance were not objectively assessed, but instead were simply inquired about during an interview. The participants in the current study appeared to be at different levels of acceptance of their diagnoses; however, due to the small, non-randomized sample and explorative nature of
this study, it is unknown which specific level of acceptance the participants were experiencing. This means that it is possible that these inferred stages are truncated, or that more data were obtained for some stages of acceptance, as opposed to others. Nonetheless, four tentative stages of acceptance emerged from the participants’ lived experiences of co-morbid CBNP and depression and/or anxiety.

**Progression and movement among stages.** Before each stage is described, it is important to report how the participants experienced the actual process or movement among the tentative stages of acceptance. Stages were numbered and ordered by the researcher, because all participants described an overall similar progression of acceptance. While the participants’ descriptions of the stages occurred in a specific overall sequence, they also, at times, experienced the stages somewhat out-of-order. For example, participants seemed to go back and forth between stages, and at times could be classified as being in two or more stages simultaneously. Furthermore, participants reported that their rate and direction of movement among stages changed if CBNP, depressive, or anxiety symptoms worsened or improved. For instance, participant H described the experience of being at stage three, compliance and cooperation; however, he indicated that if his symptoms worsened (e.g., if he lost the ability to walk), then he would have to start the process of acceptance all over again.

**Stage one: Denial and anger.** Denial referred to the participants’ expectations that their pain was not chronic and would not impact their quality of life. Denial of chronicity among CP populations has been previously recorded (Briscoe, 2000). Participants D, G, H, and J illustrated the denial of chronicity in the following excerpts:

[I] kind of just dealt with it for a bit though, because I didn’t think it was anything major. It just—it hurt, but I figured “okay I fell, it’s going to hurt” (. . .). The
back, I’m hoping that, you know, hopefully it’ll start going away on its own. (Participant D)

I accept the pain for what it is on a shorter term level. (Participant G)

I thought, “Oh, it is just posture and I’ll get better.” (Participant H)

I guess I am just hopeful that this [CBNP] is going to go away (Participant J).

The dominant feeling of participants at this stage was anger. Subsequent feelings of the participants at this stage were (a) impatience, (b) annoyance, (c) guilt, and (d) jealousy toward pain-free individuals. Participants A, B, and H illustrated feelings of anger:

When I try to lie down and go to sleep or if I’m just sitting somewhere, it’s just annoying to have to continuously reposition yourself to the point where you feel like you’re okay. So I think if anything else, my reactions are definitely anger and annoyance. (Participant A)

I can wake up and be just as angry about it one day, as I was when I first realized I wasn’t going to do it [certain activities] again. (Participant B)

Obviously, when people are in pain, they have the tendency to be more angry and respond much more shortly with people, which I did. (Participant H)

The participants’ dominant identity issue at this stage was the enmeshment of their self-concepts and their diagnoses. At this stage, participants tended to over-identify with their CBNP and depression and/or anxiety. It was hard for them to see themselves as more than their diagnoses, or engage in activities that were not aimed at reducing their pain and mental health symptoms. Their former self-concepts were deconstructed and consumed by their diagnoses. At this stage, the participants’ dominant problem-solving strategy was to “fix it”:

I don’t do the stretches every day. I really only do them if I’m experiencing the pain to try to make it go away. (Participant D)

I thought, I am not going to live with this. If it will never go away, then I am solving it and that’s it. (Participant G)
During stage one of acceptance, denial and anger, the participants with CBNP and depression and/or anxiety differed from Henwood and colleagues’ (2012) participants’ experiences during the first phase of “comprehending the perplexity of chronic neuropathic pain” (CNP; p. 218). Henwood and colleagues’ participants spent the first phase of acceptance in an existential quandary. They were concerned with existential questions and asked themselves “why did this happen to me” (Henwood et al., 2012, p. 218), whereas individuals with CBNP and depression and/or anxiety tended to be in denial, and then angry. Perhaps the presence of mental health problems sways the experience of acceptance toward longer periods of denial and anger, as opposed to existential crises. The second phase of “seeking pain resolution” (Henwood et al., 2012, p. 218) overlapped with the first stage of denial and anger. Both groups of participants spent a lot of time and energy trying to alleviate or fix their pain.

**Stage two: Contradiction and negotiation.** Contradiction referred to the participants’ cognitive attempts to acknowledge their co-morbid diagnoses, and the subsequent retaliation of doing so. Negotiation referred to the participants’ ability to acknowledge their CBNP and depression and/or anxiety in one context, but not in another. Negotiation included a bartering process in which participants decided to surrender to certain limitations, in order to maintain partial control over components of their diagnoses and lives. Participants described this tentative stage as a struggle or the working through stage. The stage of contradiction and negotiation was the most complex stage, because of its back-and-forth nature. The participants internally debated whether or not to accept parts of their experiences, and then attempted to integrate these parts into a comprehensive self concept.
The dominant feelings of the participants at this stage included (a) dissonance, (b) confusion, (c) confliction, (d) sadness, and (e) submissiveness. The participants found themselves transitioning from the first stage of comfort (denial) and activation/empowerment (anger) into a stage of dissonance and disappointment (contradiction) and defeat (negotiation). At this stage, the dominant identity issue was cognitive dissonance. For example, participants’ self-concepts did not match their new limitations and restrictions. At this stage, their identities were largely deconstructed, and they were forced to negotiate with certain aspects of their circumstances, in order to begin the process of identity reconstruction. The dominant problem-solving strategies that were utilized by the participants were the evaluation of pros and cons and compromise. The participants’ experiences of stage two, contradiction and negotiation, appeared to be a turbulent dance between stage one, denial and anger, and stage three, compliance and cooperation. Participants G and E described their turbulent dances:

I almost didn’t want to come in today, because I thought, I’m kind of I’m past it [his CBNP and depression and anxiety], but then I do this thing where I think I am past it, but I’m not past it. Then I’ll have pain for two or three days and I’ll think—I went to the psychologist and I was reading through the book [on how to accept CP], and I was like “oh I can do this” and then I canceled my next appointment. And then I called him back up and I said “no, I’m losing it again.” (Participant G)

It’s a lot of going back and forth, uh, wishing I could do what I want and then also just trying to say to myself, “okay that was in the past, look forward at what you can do and try to be positive.” But it’s hard not to fall back on the negative. (Participant E)

The experiences of the participants at stage two of acceptance overlapped with the experiences of the participants at the third and fourth phases of acceptance of Henwood et al.’s (2012, p. 219) model. Both groups of participants eventually acknowledged their conditions and negotiated between their values and circumstances. In contrast, the CNP
participants at phases three and four accepted that they had little control over their pain, whereas participants with co-morbid CBNP and depression and/or anxiety did not reach this level of acceptance until later in their development. Perhaps the added burden of mental health issues stalls the process of acceptance.

**Stage three: Compliance and cooperation.** The participants’ turbulent dancing at stage two slowly became steady and fluid as they entered stage three. Stage three, compliance and cooperation, referred to the participants’ realization that they could not control all aspects of their CBNP and depression and/or anxiety. At this stage, the participants’ dominant feelings were (a) relief, (b) complacency, (c) acquiescence, and (d) strength. At stage three, the dominant identity issue for participants was the reconstruction and solidification of a new and whole sense of self. The dominant problem-solving strategies that were utilized by participants were passivity and calmness.

For instance, participant C talked about how “things [CBNP, depression, and anxiety] just happen,” and how she decided to disallow uncontrollable circumstances to “interrupt [her] whole being.” She also explained that she realized that she was not to blame for her diagnoses and, accordingly, forgave herself. Participant F talked about how her CBNP and depression were not going to “define” or “rule” her. Participant G indicated that upon diagnosis he “refused to accept it [CBNP],” and thought his father was “crazy” when his father advised that he think more positively about his pain. Months later, after working through the process of acceptance, and at the time of the interview, Participant G stated that his plan was to think more positively about his diagnoses. While at stage three, participant H talked about how he plans to “make the best of it [CBNP and depression] and realize that life goes on.”
At stage three, the participants were less likely to fight for control and more likely to put effort into learning how to live happily with CBNP and depression and/or anxiety. The participants complied with their restrictions and limitations in some situations and cooperated with their restrictions and limitations in other situations. Compliance involved peacefully submitting to the circumstances of their co-morbid CBNP and depression and/or anxiety. For example, participants stopped certain hobbies or activities that worsened their symptoms. Cooperation involved working with the circumstances that their diagnoses created. For instance, some participants talked about continuing activities that aggravated their symptoms, but took frequent breaks or asked others for help. Participant I insightfully described the battle for control over uncontrollable circumstances as the attempt to direct a fish. At this tentative stage, the participants learned that they could not direct the fish (i.e., compliance), but they also learned that they could lure the fish to one side of the tank with food (i.e., cooperation).

Stage three, compliance and cooperation, overlapped with Henwood and colleagues’ (2012) third, fourth, fifth, and sixth phases: acknowledging pain permanence, redefining core values, learning to live with the pain, and integrating pain. Similar to the participants with CNP at phases three and four, the participants with CBNP and depression and/or anxiety, at stage three, realized that they did not have control over all aspects of their conditions. Similar to the CNP participants at phase four, the participants with CBNP and depression and/or anxiety, at stage three, were cooperating with their restrictions and limitations in order to achieve goals and improve their quality life. Similar to the CNP participants at phases five and six, participants with CBNP and
depression and/or anxiety, at stage three, were learning to integrate their new circumstances into their daily routines.

**Stage four: Full acceptance.** At the tentative stage four, full acceptance, the participants acknowledged their diagnoses and stopped resisting their circumstances. While the process of acceptance was described as a turbulent dance at stage two, and as a steady dance at stage three, stage four is described as a skilled waltz. Despite the fact that stage four was only vaguely described by the participants, they indicated that there was a more advanced state of acceptance than compliance (stage three). According to the participants, this advanced state of full acceptance involved (a) experiencing their co-morbid CBNP and depression and/or anxiety as normal, and (b) embracing their diagnoses. At this tentative stage, the participants’ dominant feelings were (a) harmony, (b) peace, (c) normalcy, (d) composure, and (e) embracement. At stage four, the participants’ new identities were reconstructed, solid, and integrated into their lives, reporting fewer problems and focusing on more positive aspects of their lives.

While 30% of the participants mentioned this tentative stage of “normalcy” (Participant H) and “embracement” (Participant F), all participants hinted that a more developed stage of acceptance was possible, or at least desired. Participants did not describe full acceptance as their common state of being. Full acceptance seemed to be, at least in part, an idealized state. Participants F, H, and I discussed embracing their conditions. Participant F and I discussed full acceptance as being associated with religiosity or spirituality. Participant F was Christian and believed that God placed everything in her life for a reason. Participant I was spiritual and believed in the Buddhist and Taoist philosophies that suffering is an inherent part of being human. For
some participants, spirituality was associated with full acceptance. Similarly, spirituality has been shown to help persons cope with CP (Rippentrop, 2005).

While there was an emerging sense about what stage four entails, it was not as well-defined by the participants as stages one, two, and three. For instance, another explanation of full acceptance could be that full acceptance was really more of a part of coping and navigating stage two, than it was a separate developmental stage. Further research on acceptance of co-morbid CBNP and depression and/or anxiety is needed in order to better understand full acceptance. Interestingly, Henwood and colleagues (2012) did not report a final phase similar to full acceptance among individuals with CNP.

The following section is directed toward medical and mental health providers, and is a review of possible clinical implications regarding the aforementioned tentative four-stage process of acceptance for persons with co-morbid pain and mental health concerns. The tentative four-stage model of acceptance may be utilized to facilitate growth and well-being among this population. Understanding the developmental level that an individual is at helps practitioners to tailor interventions accordingly (Deal, 2000). A stage model allows medical and mental health practitioners to work at an individual’s pace. Based on participants’ reports, practitioners are cautioned to be aware of their patients’/clients’ developmental level of acceptance of their diagnoses, in order to ensure that they are working within the realm of patients’/clients’ comprehension and capacity for change.

Also, the proposed tentative stage model helps practitioners to increase empathy for the CBNP and depressed/anxious population and gain a detailed understanding of the population’s experiences at a particular time in their development. Furthermore,
developmental information helps practitioners to create better treatment protocols and
prevent barriers to treatment goals (Newman & Newman, 2012). Because the process of
acceptance is of utmost importance to those with CP (Henwood et al., 2012; Smith &
Osborn, 2007), and to the participants in this study, it is likely to be salient for other
individuals with CBNP and depression and/or anxiety (Perrin et al., 1993). There is little
evidence that different pain conditions discriminate in relation to mental health states
(Perrin et al., 1993). The process of acceptance may be considered as part of the process
of healing, which is inevitably what mental and medical health professionals are working
toward. The aforementioned tentative model may serve as a guide or map toward
healing.

The comparisons between the stages of acceptance among individuals with CBNP
and depression and/or anxiety, and the phases of acceptance among spinal cord-injured
individuals, indicated that individuals with CBNP and depression and/or anxiety may not
experience the acceptance of pain in the same way that other CP populations do. If
individuals with CP also have mental health diagnoses then, initially, they may
experience more denial and emotionality associated with diagnosis, as opposed to
individuals with CP but without mental health diagnoses. It also took longer for these
individuals to reach certain milestones of acceptance, such as accepting circumstances
that are uncontrollable. Furthermore, these individuals may go beyond simply integrating
CBNP into their lives, but actually embrace their diagnoses. In contrast, the comparisons
also indicated that all individuals with CP may share some common experiences, despite
etiology and co-morbid conditions.
Invalidation and Isolation

Participants identified invalidation and isolation as unique challenges, specific to individuals with co-morbid CBNP and depression and/or anxiety. They considered invalidation and isolation unique challenges, because they believed that these challenges were not experienced, or not experienced in the same way, by individuals with only one condition (i.e., individuals with CBNP, but not mental health problems or vice versa). All of the participants reported experiencing invalidation and isolation from others. These findings are consistent with other explorations of CP and invalidation or isolation (Briscoe, 2000; Gudmannsdottir & Halldorsdottir, 2009; Kool & Geenen, 2012; Lavie-Ajayi et al., 2012; Nguyen, Ecklund, MacLehose, Veasley, & Harlow, 2012). The participants in this study, perceived being treated as drug abusers, criminals, lazy, dramatic, factitious, whiney, undeserving of their disability statuses, or crazy.

Participants reported more invalidation from medical professionals and the public than any other groups; however, mental health professionals, friends, and family were also sources of occasional invalidation.

Participant B told a story about her negative experience with a pharmacist. The pharmacist did not believe that her prescription for pain medication was authentic. She also told a story about her trip to the hospital, because she had an allergic reaction. Although the participant attended the hospital because she had broken out in hives, and not because of pain-related issues, the nurse accused her of lying about the medications she was taking. The nurse happened to look at the participant’s insurance records from five years prior, which indicated that she was taking oxycodone, a narcotic pain medication. The participant was no longer taking that medication, but the nurse accused
her of hiding information. Similarly, participant F indicated that her physical therapist ignored her explanation of the etiology of her pain. She tried to explain to her physical therapist that her migraines were stemming from her neck injury. Weeks went by until her physical therapist changed the treatment focus to the participant’s whip lash injury, at which point the participant finally felt some relief. Also, participant F’s disability status was questioned by an institution because she did not look handicapped. Others (participants A, B, C, D, E, F, and H) stated that medical professionals dismissed their symptoms and told them that they would be fine.

More troubling than the aforementioned experiences, is that participants internalized these stereotypes. For example, participant F, who was questioned about her disability status, faked a limp in order to look more like how she felt. She wanted to prove to onlookers that she was disabled. Participant B, who was dismissed and told by a medical professional that she would be fine, began to worry if she was, in fact, overreacting, being dramatic, or feeling pain that was not really there. Participant C, who avoided lifting heavy items due to her back pain, began to worry if she was just being lazy. The participants’ internalizations concur with Waugh, Byrne, and Nickolas’s (2014) findings. They reported that persons with CP tend to endorse the experiences of internalized stigmas, and that internalized stigmas have a negative relationship with self-esteem and pain self-efficacy, after controlling for depression.

Due to constant invalidation, the participants easily become isolated and lonely. Participants both chose and were forced to isolate. When participants were no longer able to engage in activities such as bowling, playing sports, camping, fishing, etc., they were automatically detached from social groups. Similarly, some participants talked
about not being able to sustain romantic relationships due to the affects of CBNP and depression and/or anxiety:

I think we would have broken up eventually anyways, but I remember she said I was negative all the time. I wasn’t any fun. I never really had anything to talk about besides complaining. (Participant E)

Moreover, fear of holding others back or slowing others down caused individuals with CBNP and depression and/or anxiety to withdraw. Because they did not want to be a burden to others, or give others reasons to invalidate them, participants often chose to disengage from others and be silent about their thoughts and feelings. Often, participants became lonely because they had to keep this all-encompassing part of their lives, which affected everything, a secret from people. Similar to other individuals with CP (Briscoe, 2000), participant G explained that when his pain was severe, he would leave social gatherings:

People who haven’t had pain, I mean they don’t want to—I tended to think about not bothering them with it [his pain], because I don’t know how you can tell people about something that you could have never understood until you had it. I didn’t want to burden them with that. I mean, they knew that I had it. I would go to my sisters and then I would have to say “I have to leave,” that kind of stuff. (Participant G)

The following section is directed toward medical and mental health professionals who are providing a service to individuals who have co-morbid CBNP and depression and/or anxiety. Although practitioners are required to screen for fabricated symptoms and behaviors, best practice protocols should account for the often invisible nature of pain (Briscoe, 2000; Snelgrove & Lossi, 2009). Automatic assumptions about individuals with CBNP and depression and/or anxiety should not be condescending. According to participants, and previous research (Briscoe, 2000), if individuals with CBNP and depression and/or anxiety perceive invalidation from practitioners, they may
feel like a burden. Accordingly, they may dread being honest with practitioners if they have to report stagnant or worsening symptoms. Subsequently, disclosure issues, due to embarrassment or disappointment, may stall or misdirect treatment plans.

Furthermore, isolation and loneliness should be assessed when working with this population, because isolation and loneliness are associated with higher risk of mental health problems (Tiwari, 2013). To reduce feelings of invalidation and isolation among individuals with CBNP and depression and/or anxiety, practitioners may implement the following strategies: (a) make referrals to or create CP support groups, (b) communicate genuine empathy, (c) disseminate literature that legitimizes experiences of CBNP and depression and/or anxiety and explains that they are not alone, and (d) implement strategies that help this population feel understood (e.g., accurate reflections of feeling, active listening, open body posture, etc.).

**Lethargy**

Participants identified lethargy as a unique challenge, specific to individuals with co-morbid CBNP and depression and/or anxiety. The participants considered lethargy a unique challenge, because they believed that challenges associated with lethargy were not experienced, or not experienced in the same way, by individuals with only one condition (i.e., individuals with CBNP, but not mental health problems or vice versa). Taken together, being in CBNP and feeling depressed, anxious, invalidated, isolated, dismissed, and discriminated against, plus having to navigate complicated unwelcoming systems, and perhaps being financially burdened and stretched for time, as well as still responsible for all other facets of life (e.g., family, work, etc.) results in complete exhaustion. Participants explained that experiencing each of these variables drained and eventually
depleted their energy. Due to this lack of energy, participants felt old, dreaded daily activities, and slept for long periods of time. The participants shared that the experience of having CBNP and depression and/or anxiety is all-encompassing. Participant A shared a powerful example of complete exasperation:

After a while, I think you kind of wear out. You get to a point where you’ve just kind of had it. And you know, I mean Robin Williams is probably the most recent example of somebody who just got to a point where it was like “I’m pretty sick and tired of going in these ups and downs, ups and downs,” and sometimes I feel like that (. . . .). It’s very tiring. (Participant A)

The following section is directed toward medical and mental health professionals, who are working with individuals who experience co-morbid CBNP and depression and/or anxiety. Medical and mental health practitioners need to recognize the all-encompassing nature of the co-morbidity of CBNP and depression and/or anxiety, and treat this population accordingly (Jordan et al., 2007). There is a paucity of research on how exhaustion functions within the CP population, and even more so within the relationship between CP and mental health. Exhaustion appears to plays many different roles for individuals, and these roles should be assessed in order to appropriately tailor treatment (Jensen & Rundmo, 2015; Kano & Tsugawa, 2011). Researchers (Bordages, 1992; Kano & Tsugawa, 2011) have reported that lethargy may lead to apathy and learned helplessness. Interventions may include addressing apathy or learned helplessness, because either may disrupt treatment. Apathy is most frequently viewed as a symptom of depression and, accordingly, is most commonly treated through the treatment protocols for depression (Yuen et al., 2014). Learned helplessness within individuals who have CP is often treated by increasing their self-efficacy for pain-management and their internal locus of control (Songer, 2005). In addition, assertiveness
training and education on sleep hygiene have been shown to reduce lethargy (Turk & Frits, 2006; Weisner Houlihan, 1981).

**Coping Mechanisms and Future Plans**

The participants identified six coping strategies. These coping strategies were (a) social support, (b) distraction, (c) cognitive restructuring, (d) routine and hobbies, (e) faith and spirituality, and (f) *pushing through* and body movement. The participants described spending time with friends, families, partners, communities, and pets as social support. The participants described distraction as engaging in any activity that prevented them from thinking about their CBNP and depression and/or anxiety. They described cognitive restructuring as identifying unhelpful thoughts and reframing them into positive thoughts. The participants explained that routine and structure allowed them to integrate their limitations into their lives with the least amount of disruption. They also explained that routine and structure allowed for more self-care and productivity. The participants described faith and spirituality as a source of strength, guidance, and peace. In addition, they explained that *pushing through* permitted them to fulfill their obligations, despite pain and emotional turmoil. *Pushing through* is similar to perseverance and may be associated with personality traits. They described body movement as maintaining an active lifestyle. They discussed the importance of keeping their bodies moving. Body movement included stretching, exercising, walking, or completing daily activities. Some of the participants associated a sedentary lifestyle with increased CBNP and depression and/or anxiety; thus, movement counteracted the worsening of symptoms. Lastly, the participants shared that *bad* coping mechanisms, such as drinking, picking, or substance use, were utilized, but not favored due to their negative side effects. The participants’
reported coping strategies were similar to other researchers’ findings on coping within CP (Turk & Frits, 2006).

The participants also shared six future plans regarding how to live with co-morbid CBNP and depression and/or anxiety. The participants’ plans were to (a) push through tough times, (b) take life day-by-day, (c) maintain a sense of hope, (d) maintain a healthy lifestyle, (e) operate with increased awareness, and (f) utilize or be role models. The participants explained that pushing through referred to strategically working through hardships. The participants reported that approaching challenges day-by-day, or step-by-step, meant that they had to readjust their approach to life everyday depending on how they felt. They also reported that taking life day-by-day included breaking down large problems into smaller components, in order to counteract feelings of being overwhelmed.

The participants reported that having the hope of a bright future was essential in order to maintain motivation. They also explained that plans to maintain a healthy lifestyle included making self-care a priority. Similarly, they planned to nurture both their physical and mental health. Also, they reported plans to maintain increased awareness, and described this plan as operating with heightened insight of the self, their diagnoses, and limitations. Moreover, they described increased awareness as a catalyst for making informed decisions that would allow for a happy future. Overall, they implied that increased awareness allowed them to be more in tuned with their goals and motivators. The participants explained that they planned to utilize role models in order to learn how to effectively manage co-morbid CBNP and depression and/or anxiety, as well as to increase the hope that a happy life is possible, despite diagnoses. Other participants
wanted to serve as role models for people with chronic conditions in order to help others work through challenges.

The following section is directed toward medical and mental health professionals who are providing a service to individuals with co-morbid CBNP and depression and/or anxiety. Traditionally, treatment plans are comprised of strategies to help individuals reach their treatment goals. For this population, treatment goals almost always include reducing the level of CBNP, depression, and anxiety, and maintaining their quality of life. According to the participants, the aforementioned coping and planning skills were helpful at reducing the intensity of co-morbid CBNP and depression and/or anxiety. Professionals may integrate the participants’ coping and planning strategies in the following ways. For example, practitioners can teach individuals how to (a) utilize or increase social supports, (b) distract themselves from the pain when a break is needed, (c) engage in cognitive restructuring or positive self-talk, (d) implement routine, (f) utilize spirituality to overcome obstacles, and (g) keep active. Also, practitioners can teach individuals how to engage in mindfulness, maintain a sense of hope and a healthy lifestyle, operate with increased awareness, and utilize or be role models. If individuals already possess these skills, then practitioners can remind or encourage individuals to use them. Lastly, practitioners can integrate these factors into their sessions or appointments with individuals who have CBNP and depression and/or anxiety.

**The Interview Experience**

A unique aspect of this study was the exploration of how the participants experienced being interviewed about their co-morbid CBNP and depression and/or anxiety. All of the participants reported that talking about their diagnoses with the
interviewer was beneficial. The participants reported four reasons why being interviewed about their CBNP and depression and/or anxiety was positive. The participants reported that the interview provided them with (a) a non-judgmental space to talk about their experiences, (b) the opportunity to reflect and gain insight about themselves, (c) a context in which to take action against their diagnoses, and (d) an opportunity to help others. The participants indicated that discussing their conditions with the interviewer was different and more beneficial than talking to others, because of the lack of judgment that was associated with the interview context. Other participants reported that this experience was different and beneficial, because they were provided with “fresh ears” to actively listen to their situations (Participant C). Interestingly, participant G, who reported the lowest rating of the interview experience (5 or neutral), also had the most recent diagnosis among the participants. This finding may indicate that the benefits of discussing CBNP and depression and/or anxiety are more fruitful at later stages of diagnosis and/or acceptance.

At least 40% of the participants reported that the experience of being interviewed allowed them to reflect on their experiences, increase their self-awareness, and develop new ways to manage their diagnoses. They reported that the interview allowed them the time and space they needed in order to track their thoughts, feelings, actions, and overall personality changes that were associated with their lived experiences of CBNP and depression and/or anxiety. Participant E described the experience of talking about his CBNP and depression as “enlightening.” Similarly, participant H described his interview experience as “therapeutic.”
Half of the participants reported that talking about their co-morbid diagnoses with the interviewer allowed them to feel like they were taking action against their diagnoses or circumstances and were helping others at the same time. Loss of control is associated with the experience of CP (Briscoe, 2000; Cano-García, Rodríguez-Franco, & López-Jiménez, 2013; Crisson & Keefe, 1988). Accordingly, participants explained how important it was that the interview was associated with the feeling of increased control. They believed that the information they provided to the interviewer would eventually help others. Essentially, they viewed the interview as a means to inform practitioners, and they believed that if professionals had more knowledge about their lived experiences, then treatment would be designed to meet the specific needs of the population.

The following section is directed toward medical and mental health professionals who are providing a service to individuals who have CBNP and depression and/or anxiety. As reported above, participants valued certain conditions of the interview context. They valued the non-judgmental nature, the active listening of the interviewer, the opportunity for reflection and increased awareness, and the taking action component. Interestingly, psychotherapy involves all of these ingredients (Brems, 2001).

If psychotherapy typically includes all of these components, then why was there such a disconnection between the treatment of CBNP and psychotherapy? The participants’ responses exposed the disconnection between the treatment of the mind and body, despite the fact that they viewed the relationship between their CBNP (the body) and depression and/or anxiety (the mind) as connected. If the participants did not view CBNP and depression and anxiety as separate, then nor should they view the treatment of CBNP and depression and anxiety as separate. Most participants did not think about
consulting with a qualified mental health provider (e.g., a pain psychologist) to treat their CBNP. Previously, researchers (Snelgrove et al., 2013) have reported that individuals with CP tend to emphasize biological causes for pain, as opposed to emotional; however, individuals who have a more balanced etiological perspective that includes mental health factors are more likely to experience lower pain levels, utilize more coping strategies, be more future-oriented, and have more intact self-concepts than those who only emphasize biological etiology. In the current exploration, the participants did not discount the emotional etiology, but did emphasize the biological aspects of pain in regard to treatment.

Psychological health care is essential for individuals with CP (Griffith, 2008; Main & Spanswick, 2000; Richeimer, 2000), and it is likely that psychological health is even more essential for individuals who have a duel diagnosis of CP and depression and/or anxiety. Mental health care is especially important in the treatment of neuropathic pain, because therapeutic interventions often address the faulty alert system that was described in Chapter I (Richeimer, 2000). Due to the necessity of psychological health among individuals with CP, and because of the movement toward a multidisciplinary treatment approach for CP, pain clinics are starting to employ more staff psychologists (Cianfrini & Doleys, 2006; Hickling, Sison, & Holtz, 1985). Accordingly, it is important, especially for medical professionals, to consider referring individuals with co-morbid CBNP and depression and/or anxiety to qualified mental health providers, who work within the scope of CP. Similarly, it is encouraged that practitioners also consider referring individuals with CBNP and depression and/or anxiety to CP psychotherapy groups. Depending on the demand and availability of groups, it is recommended that
qualified mental health professionals create CP psychotherapy groups, because it is important that these groups are available to the CP community.

It is also recommended that medical and mental health providers encourage individuals to be an active part of their own treatment, because it is important that individuals with co-morbid CBNP and depression and/or anxiety gain a sense of control and productivity in order to consider their time spent in treatment as constructive (Briscoe, 2000). Furthermore, practitioners are encouraged to replicate the four environmental conditions of the interview, which the participants explained to be beneficial.

**Resiliency**

Sturgeon and Zautra (2010) described resilience as sustained positive functioning and quality of life despite risk factors, and suggested that resilience be utilized as a new paradigm for the adaptation to CP. In contrast, other researchers (Newton-John, Mason, & Hunter, 2014) reported that even though resilience is correlated with dimensions of CP, it does not have a significant effect on the adjustment to CP. More research is needed to understand the nature and causal underpinnings of resilience among individuals with CP (Karoly & Ruehlman, 2006). The participants’ experiences of CBNP and depression and/or anxiety supported the former theory that resilience may be a useful paradigm.

Despite the fact that the participants’ overall experiences of CBNP and depression and/or anxiety were negative, at least 50% of the participants described some positive experiences. For example, two participants felt that dealing with CBNP and depression and/or anxiety made them stronger. They communicated a sense of strength, because
they continued to persevere through difficult circumstances. In addition, two participants indicated that their difficult circumstances led to a healthy change in worldview, such as being more humble and non-judgmental. Similarly, three participants who had viewed themselves as independent prior to diagnosis, became more accepting of others’ help. Based on the data, it is unclear as to what attributes led to the development of these frames of reference (e.g., personality traits, extensive processing, resources), but resiliency was certainly present among the participants. West, Stewart, Foster, and Usher (2012) found the same results when they explored the lived experiences of resiliency among 10 individuals with CP. West and colleagues reported that the participants in their phenomenological study reported positive stories about (a) recognizing their individual strength, (b) looking for the positive in life, (c) accepting the pain, and (d) learning to accept help. Perhaps persons with CP and persons with co-morbid CBNP and depression and/or anxiety are resilient in similar ways.

The following section is directed toward medical and mental health professionals who are working with individuals who experience co-morbid CBNP and depression and/or anxiety. Because individuals with co-morbid CBNP and depression and/or anxiety have demonstrated their potential resilience, practitioners should include a strengths-based model when devising treatment and intervention plans (Sturgeon & Zautra, 2010). Just as practitioners want to reduce individuals’ negative experiences, they should also help illuminate and build individuals’ positive experiences. It is important to be aware that individuals with co-morbid CBNP and depression and/or anxiety have the potential to be resilient (Sturgeon & Zautra, 2010). Because CP and mental health distress tend to have an overwhelming and all-encompassing effect on
individuals, treating these individuals can become frustrating. It is common for practitioners to become frustrated and hopeless when treating individuals with CP (Chen, Fagan, Diaz, & Reinert, 2007; Drysdale, 2003; Tumlin, 2001). When these countertransference issues arise, it is important to remember that there is much strength to be built upon, such as perseverance, positive worldviews, and the acceptance of pain and help from others.

Padesky and Mooney (2012) proposed a four-step model to guide practitioners in the utilization of strength among resilient populations like individuals with CBNP and depression and/or anxiety. First, they advised that practitioners search for individual strengths. Next, they advised that the practitioners and the individual construct a personal model of resilience. During this time, personal strengths are converted into general strategies. These strategies are created by utilizing the individual’s specific words. It is also helpful to develop images and metaphors to depict the personalized strategy. Following the formation of the personal model of resilience, Padesky and Mooney advised that practitioners discuss with the individual how to apply the personal model of resilience and anticipate potential barriers. Lastly, a strengths-based model, similar to Padesky and Mooney’s, should be practiced in order to challenge former pathology-based thinking, and in order to embrace new perspectives of strengths-based resiliency (Padesky & Mooney, 2012).

**Limitations and Strengths of the Current Exploratory Study: Section Two**

Inherent to the design of this study are limitations and strengths. In this section, the limitations of this study are presented, followed by the strengths. As in all phenomenological explorations, external validity is absent. The findings of this study
cannot be generalized to the population at large, because of its exploratory nature and small sample size.

In regard to participant demographics, ages ranged from 19 to 53; thus, experiences of co-morbid CBNP and depression and/or anxiety may differ among children, adolescence, or older individuals. Also, the participants in this study were highly educated. All of the participants had attended at least some college and three participants held master’s degrees; thus, experiences of CBNP and depression and/or anxiety may differ among less educated populations. Similarly, all participants, at the time of the interview, were within the West Michigan area. Pain may be experienced differently across cultures, outside of the United States or Western Michigan, or even outside of the current sample. Likewise, this analysis may not be applicable to individuals with CP localized outside of the back or neck, and with mental health diagnoses outside of depressive or anxiety disorders. Also, all data obtained were obtained via self-report. Accordingly, participants were not asked to provide proof of diagnoses; however, they were asked specific questions about their official diagnoses (e.g., who diagnosed them and when). It is also possible that answers to interview question number 13—“I am also wondering how you would rate the simple act of our conversing about your chronic pain and mental health, in the structured way that we did, on a scale of 1 to 10. The number 1 would indicate a negative experience, 5 being more neutral (that is neither negative nor positive), and 10 being more positive”—may be inflated due to participants’ possible desire to respond in a perceived favorable manner.

The participants’ variation in length of diagnosis is another limitation to this study. The participants’ lengths of diagnoses ranged from the minimum requirement of
1 year to 30 years. It is likely that length of diagnosis impacts how CBNP and depression and/or anxiety are experienced. Because length of diagnoses was not controlled for, it is difficult to understand how the length of diagnoses impacted the participants’ lived experiences. Similarly, there appeared to be between-subject differences in the level of attained acceptance. Because levels of acceptance were not objectively measured, the exact stage each participant was in is unknown. It is unlikely that an equal number of participants were distributed among the four tentative stages. Thus, the researcher may have learned more information about earlier stages of acceptance, as opposed to later stages. Likewise, perceived pain severity was not assessed, which also limits the information that can be drawn from this study. In addition, while the participants seemed unaffected by the tape recorder, it is always possible that participants were hesitant to disclose certain information on record.

Although measures were taken to reduce researcher bias, such as bracketing, member checks, memoing, and peer debriefing, this researcher is diagnosed with degenerative disk disease and experiences chronic pain in her back and neck. This researcher is also a clinical therapist and has provided psychotherapy to many individuals with depression and anxiety, and some with CP. Because researchers cannot entirely detach from the rest of their being while conducting research (Moustakas, 1994), it is possible that her own experiences impacted her decisions throughout the process of this exploration. Furthermore, with the exception of peer debriefing, this researcher was the only researcher working on the study. This is a threat to validity and reliability because it is more likely that biases and assumptions impacted the findings. Lastly, due to resource limitations, triangulation was not established in this study. Triangulation refers to the
use of multiple sources of information. The current study was conducted using only semi-structured interviews. Although the aim of this study was to focus on the individuals’ experiences, it is understood that experiences do not occur in a vacuum and consist of many environmental/contextual layers, some of which may not be uncovered through semi-structured interviews.

Despite these limitations, the current exploration provided valuable information for understanding the co-morbidity of CBNP and depression and/or anxiety. The strengths of this study are discussed through the remainder of this section. According to the U.S. Census Bureau (2010), the participants in this study are considered to be diverse in regard to race, sexual orientation, gender, and age. Also, people of color make up about 36.3% of the population (U.S. Census Bureau, 2010). In the current study, 30% of the participants identified as being a person of color.

According to a recent study (Coffman, Coffman, & Marzilli Ericson, 2013), 19% of Americans reported they that do not identify as heterosexual. In the current study, 20% of participants identified as either gay or bisexual. According to the U.S. census (United States Census Bureau, 2010), males make up 49.1% of the population and females make up 50.9% of the population. In the current study, 40% of the participants were males and 60% were females. Despite the fact that individuals over 53 and under 19 were not represented in this study, the participants represented four decades within their age range (i.e., teens, twenties, thirties, and fifties). Similarly, their reported incomes represented the lower, middle, and upper classes. Two participants reported their household income as below $16,000 per year, four reported making between $16,000 and $34,999 per year, one reported making between $50,000 and $74,999 per
year, two reported making between $75,000 and $99,999 per year, and another reported that her income was $100,000 or above per year.

Several attempts were made to counteract threats to validity and reliability. In order to maximize validity and reliability, the researcher strictly adhered to trustworthiness protocols (Creswell, 2007; Marshall & Rossman, 2011). The largest threat to the current study is external validity. Researchers (Creswell, 2007; Marshall & Rossman, 2011; Moustakas, 1994) argue that transferability replaces external validity in qualitative studies. The protocols and procedures that were followed in order to establish transferability, such as reporting contextual descriptions and assumptions, serve as evidence that these findings will be useful to others within the context of co-morbid CP and depression and anxiety, particularly because most pain conditions tend to affect mental health states similarly, and there is little evidence that pain is experienced differently across demographic groups (Narita et al., 2006; Perrin et al., 1993). However, readers should remember that transferability is primarily the responsibility of the researcher doing the generalizing (Bogdan, 2007).

Credibility (i.e., validity) was achieved through prolonged engagement, member checks, peer debriefing, searching for disconfirming evidence, and the development of an audit trail (Creswell, 2007; Marshall & Rossman, 2011). In efforts to avoid all possible bias and increase credibility, analyses were cross-examined via MAXQDA, a computer software program designed to enhance validity of qualitative investigations. Furthermore, trustworthiness guidelines were adhered to during the development of the interview protocol and the interview questions in order to ensure that the participants were not led during the interview.
Dependability (i.e., reliability) was established by accounting for the context, and through the reported textural and structural descriptions at the end of Chapter IV. In addition, detailed memos and an audit trail were recorded and cross-checked by computer software. Reliability was also enhanced through the use of a carefully constructed interview guide, selection criteria, and detailed description of the method of analysis. Internal reliability was enhanced through the use of the participants’ verbatim responses or in-vivo coding. Confirmability (i.e., objectivity) was established by (a) audit-checking, (b) peer-debriefing, (c) bracketing, and (d) the verbatim reporting of the research design and implementation (Bogdan, 2007). In addition, the existing research was examined and the degree to which this study is congruent with those findings was discussed.

Other strengths of this study were that ethical considerations were heavily built into the development and implementation of this study. Rapport was built with each participant and standards of reciprocity have been followed. The researcher has acknowledged that she is indebted to each participant for his or her participation. Accordingly, all participants were given a copy of their transcript and all, except for one participant who declined, will receive a copy of the final manuscript. The participants’ willingness to re-live their experiences with CBNP, depression, and anxiety was a valued gift and was treated as so throughout this study.

Inherent advantages to the current phenomenological design include embracing the constructivist and pluralistic perspectives, the importance placed on the context, the artistic telling of the story of the lived experience, and respecting the dynamic and ever-changing nature of the world and its phenomenon (Creswell, 2007). In addition,
strengths of qualitative methodology include the researcher’s ability to (a) obtain data based on participants’ meaning; (b) obtain detailed/in-depth accounts (which is especially useful to understand complex relationships); (c) provide the emic or insider’s view; (d) describe the richness of a phenomenon as it is naturally embedded in context; (e) study dynamic processes; (f) generate tentative theories; (g) determine how actual participants define constructs, as opposed to assuming standard meaning; (h) be responsive to changes that occur during the study and be flexible to shift the focus of the study if necessary; and (i) uncover vivid descriptions or demonstrations of phenomenon as it is experienced in the world (Heppner et al., 2008). Furthermore, Van Kaam (1966) proposed that a phenomenological approach to psychological research may be more accurate than traditional experimental designs, particularly because phenomenological research provides access to in-depth/detailed data, which corresponds to the in-depth/detailed nature of psychological constructs. He also indicated that the utilization of a phenomenological method removes the biases associated with artificial laboratory settings (Van Kaam, 1966).

Specifically, the findings of this study led to greater understanding of co-morbid CBNP and depression and/or anxiety in many different experiential domains. For instance, this phenomenological analysis of the lived experiences of co-morbid CBNP and depression and/or anxiety provided insight into the perceived correlation, causality, and nature of the relationship. Also, this analysis led to a better understanding of five underlying mechanisms that impact the relationship, the unique challenges that are associated with the relationship, and the beneficial effects of talking about co-morbid CBNP and depression and/or anxiety. In addition, this analysis led to a better
understanding of how individuals with CBNP and depression and/or anxiety utilize coping strategies, process acceptance, and plan for navigating the future. Moreover, this analysis led to a better understanding of treatment utilization among participants, and the all-encompassing nature of co-morbid CBNP and depression and/or anxiety.

Likewise, there were general advantages to this exploration. The telling of the participants’ stories allowed the reader to understand how individuals with co-morbid CBNP and depression and/or anxiety experience, make sense of, and draw conclusions about the relationship between their physical pain and mental health. Accordingly, readers may apply their increased understanding to improve the lives of individuals with co-morbid CBNP and depression and/or anxiety. Furthermore, telling of the participants’ stories allowed the reader to understand how talking about CP and mental health may be beneficial or even therapeutic. Finally, of most importance and concern to this researcher, was the advantage of giving voice to this often silenced population.

**Recommendations for Further Research: Section Three**

There are many paths that future researchers may take to further the understanding of co-morbid CBNP and depression and/or anxiety. In response to the limitations of this study, researchers may investigate co-morbid CBNP and depression and/or anxiety in different populations (e.g., children, elderly, different geographic regions, or among individuals with less education). In addition, it is recommended that future researchers measure and control for the length of diagnoses and perceived pain level. Also, future researchers may replicate this study with triangulation. For example, researchers may collect multiple forms of information such as participants’ journals, interviews with family and physicians, quantitative assessments, or medical records.
Interestingly, six paradigms emerged from this exploration that requires replication and continued research. First, this researcher raised the question of whether or not models of directionality and causality should include multidimensional and time sensitive components. The participants experienced co-morbid CBNP and depression and/or anxiety as initially following a linear, cause and effect, consequence model (i.e., pain causes mental health symptoms). During later stages of diagnosis, they experienced their co-morbid CBNP and depression and/or anxiety as following a systemic reciprocal model (i.e., pain and mental health symptoms affect each other). More research is needed in order to understand if perception of causality is multidimensional and time sensitive.

Second, the participants’ responses shed light on long-standing questions regarding the underlying mechanisms of the relationship between CP and depression and/or anxiety. Participants reported complex experiences of disability, tension, vulnerability, cognitions, and stress. More research is needed on these underlying variables in order to understand exactly how they affect co-morbid CBNP and depression and/or anxiety. Quantitative studies that explore mediating and moderating variables are warranted.

Third, the participants in this study identified five unique challenges, all of which need to be further explored. The participants’ lived experiences of CBNP and depression and/or anxiety consisted of unique problems that were associated with (a) system navigation, (b) conflicting treatment protocols, (c) identity concerns, (d) invalidation and isolation, and (e) lethargy. In particular, research is needed on variables associated with system navigation. The participants shared some rather disturbing experiences of discrimination and invalidation. Individuals who were already in chronic physical and
emotional pain left establishments feeling insulted, unheard, discriminated against, beaten down, and angry. More research is needed on how best to advocate for this often silenced population. As mentioned earlier, community-specific and nationwide action plans are needed in order to raise awareness and initiate societal change; thus, program implementation and evaluation research is warranted.

Fourth, this researcher proposed a possible model of identity deconstruction and reconstruction for individuals with co-morbid CBNP and depression and/or anxiety. This is a tentative and working model that needs to be replicated and researched with quantitative assessment inventories. More research is needed to understand (a) the process of identity change, and (b) how medical and mental health professionals can foster healthy reconciliation of problems pertaining to self-concept among this population.

Fifth, this researcher also proposed a possible model of acceptance among individuals with co-morbid CBNP and depression and/or anxiety. This model is also a tentative and working model that needs to be replicated and researched with quantitative assessment inventories. The participants explained that the process of acceptance was a complicated journey that cycled through four stages. These stages were (a) denial and anger, (b) contradiction and negotiation, (c) compliance and cooperation, and (d) full acceptance. More research is needed on each of these tentative stages in order to understand if they are truly separate stages and unique to this population, or if they are better described by a more generalized model of acceptance. Further research on stage four, full acceptance, is particularly warranted, because this stage was only vaguely
described by the participants and is the least understood among the four stages. Researchers should examine if full acceptance is an attainable stage or an idealized state.

Sixth, this study may serve as a foundation for research on medical and mental health treatment of co-morbid CBNP and depression and/or anxiety. The participants reported that the interview was beneficial, because it provided them with (a) a non-judgmental space to talk about their experiences, (b) the opportunity to reflect and gain insight, (c) a context in which to take action against their diagnoses, and (d) an opportunity to help others. Psychotherapy treatment-outcome studies on how these variables affect treatment with clients who have co-morbid CBNP and depression and/or anxiety are warranted. Also, more research is needed in order to understand the disconnection that emerged between the treatment of CBNP and psychotherapy, despite the commonly held belief that the mind and body are connected. Moreover, research is needed on how to establish truly multidisciplinary pain management teams and synchronize treatment between providers. While not specifically built into the interview protocol, resiliency among this population emerged. There is a dearth of research on resilience among individuals with CBNP and depression and/or anxiety; thus, research on resiliency in this population is recommended.

**Summary and Concluding Comments**

This study intended to (a) utilize methodology that reflects the subjective nature of emotional and physical pain; (b) better understand how/if individuals perceive the/relationship between physical pain and mental health; (c) understand how participants perceive talking about CBNP and depression and/or anxiety; (d) give this population a voice, because they are often silenced, delegitimized, and isolated; and (e) aid
practitioners in the development of effective interventions and quality treatment protocols for individuals with CBNP and depression and/or anxiety. While Chapter IV consisted of the verbatim reporting of the findings, Chapter V was a discussion of the essence of the participants’ lived experiences and the associated clinical implications. Also, Chapter V was a discussion of the limitations and advantages of the current study, as well as a discussion about the multiple paths researchers may take to further the understanding of co-morbid CBNP and depression and/or anxiety.

The lived experiences of co-morbid CBNP and depression and/or anxiety were powerful, because the phenomenon was deeply rooted within the participants’ personhoods and livelihoods. They perceived a direct and positive relationship between their pain and mental health, and perceived this relationship to affect all other facets of their lives. Also, they experienced talking about their CBNP and depression and/or anxiety to be beneficial and therapeutic. After witnessing the exhaustion on 10 participants’ faces and listening to their rich and all-encompassing experiences with co-morbid CBNP and depression and/or anxiety, one can only imagine how extensive the experiences must be of the 1.5 billion people worldwide who experience CP. The all-encompassing nature of the phenomenon is the reason why it is so important to continue research aimed at improving the circumstances that surround the co-morbidity of CP and mental health.
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Appendix A

Flyer
Do you experience CHRONIC PAIN or know someone who does?!?

As part of her doctoral dissertation project, Tara L. Palmeri, M.S.Ed., LLPC, in collaboration with Dr. Alan Hovestadt, is looking for research participants to interview regarding what it is like to experience CHRONIC BACK AND/OR NECK PAIN and DEPRESSION AND/OR ANXIETY.

**Who Qualifies? Individuals must be:**
* at least 18 years old
* diagnosed with at least 1 chronic back and/or neck pain condition for a duration of at least 1 yr
* diagnosed with at least 1 depressive and/or anxiety disorder for a duration of 1 yr
* Must **not** be diagnosed with a terminally ill condition or have had surgery in the past year.
* A diverse sample is preferred in order to maintain the highest ethical and inclusion standards (e.g., age, gender, race, ethnicity, religion, socio-economic status, sexual orientation, etc.)

**What will you be asked to do?**
* Complete a demographic questionnaire
* Participate in an audiotaped semi-structured interview about your experiences with chronic pain and mental health concerns (i.e., depression and/or anxiety), lasting about 60 minutes
* Review your typed interview to ensure accuracy

**POTENTIAL benefit:**
* You **may** benefit from participation by being able to tell your story to an engaged listener, and by informing therapists and health professionals what it is like to experience your conditions.

All of the information collected from you will remain CONFIDENTIAL. All participation is voluntary and you may refuse to participate or quit at ANY time without any prejudice or penalty. If you are interested in participating in this study, please contact Tara Palmeri (at 607-725-5040 or e-mail her at Tara.L.Palmeri@wmich.edu) to receive more specific information.

Thank You
Appendix B

Invitation to the Study
Invitation to the study
Western Michigan University
Department of Counselor Education and Counseling Psychology (CECP)
Principal Investigator: Alan Hovestadt, Ed.D.
Student Investigator: Tara L. Palmeri, M.S.Ed., LLPC

You have been invited to participate in a research project entitled “The Lived Experience of Individuals with Chronic Back and Neck Pain, Depression, and/or Anxiety.” This research study is intended to explore how individuals with chronic back or neck pain experience, understand, and draw conclusions about the relationship between physical pain and mental health, particularly depression and anxiety. This study is the dissertation project of Tara L. Palmeri.

You will be asked to participate in the following manner:

1. Meet with the researcher to learn more about the study. Then you will be asked to read and eventually sign an informed consent document, and complete a demographics questionnaire
2. Participate in an audiotaped semi-structured interview, about your experiences with chronic back and/or neck pain and mental health concerns (i.e., depression and/or anxiety), lasting approximately 60-90 minutes
3. Review your typed interview to ensure accuracy

Participant Qualifications:
1. Must be at least 18 years old
2. Must be diagnosed with at least one chronic back and/or neck pain condition for a duration of at least 1 year.
3. Must be diagnosed with at least one depressive or anxiety disorder for a duration of at least 1 year
4. Must not be diagnosed with a terminally ill condition
5. Must not have had surgery in the past year.

Possible benefits: You may benefit from participation by being able to tell your story to an engaged listener, and by informing therapists and health professionals what it is like to experience your conditions.

Possible risks: You may experience discomfort or become upset while talking about your experiences of chronic pain and mental health concerns.

All of the information collected from you is confidential. All participation is voluntary and you may refuse to participate or quit at any time during the study without prejudice or penalty. If you are interested in participating in this study please contact Tara Palmeri (at 607-725-5040 or by e-mail at Tara.L.Palmeri@wmich.edu) to schedule an appointment time. Thank you for your consideration.
Appendix C

Demographics Questionnaire
Demographics Questionnaire

1. Gender: _________

2. Age: ______

3. Ethnic Background: (Please check all that apply)
   ______ Asian
   ______ Black / African American
   ______ Hispanic/ Latino(a)
   ______ Native American / Alaskan Native
   ______ Native Hawaiian / Pacific Islander
   ______ White/ European Origin
   ______ Other _______________________

4. Please describes your religious affiliation or belief system
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________

   If you identified a belief system above, please check which option best describes how important your belief system is to you?
   ______ Not important at all
   ______ Somewhat important
   ______ Moderately important
   ______ Very important
   ______ Extremely important

5. Is English your first language? ______________________

6. What sexual orientation do you identify as? ______________________

7. How many people are in your house hold, including yourself? _______ What range best describes your household income?
   ______ Below 16,000
   ______ 16,000-34,999
   ______ 35,000-49,999
   ______ 50,000-74,999
   ______ 75,000- 99,999
   ______ 100,000 or above

8. What is your relationship status?
   ______ Single
   ______ Partnered (have a significant other)
   ______ Married
   ______ Life Time Partner
   ______ Divorced
   ______ Widowed
9. How long have you been in your current relationship? ________

10. What is the highest level of education you completed?
   _____ Less than high school
   _____ Some high school
   _____ High school
   _____ Some college
   _____ College: Associates Degree
   _____ College: Bachelor’s Degree
   _____ Master’s level graduate degree
   _____ Doctoral level graduate Degree
   _____ Medical Degree
   _____ Other ______________________________

11. Are you working? _________ If so, how many hours per week? ______________
   What is the title of your position, or nature of work?
   ___________________________________________________________________

12. What pain condition(s) are you diagnosed with? Who diagnosed you (e.g., physical
   therapist, surgeon, primary care physician)?
   ___________________________________________________________________
   ___________________________________________________________________
   ___________________________________________________________________

13. How long have you had a chronic pain diagnosis? Or when were you originally
diagnosed?
   ___________________________________________________________________
   Assuming you were in pain before you received an official diagnosis, how long have
you experienced chronic pain in total? ______________________________

14. Have you been diagnosed with a depressive disorder? ____yes  ____no
   Have you been diagnosed with an anxiety disorder? ____yes  ____no
   Who or whom diagnosed you? Check all that apply.
   _____ Counselor
   _____ Psychologist
   _____ Psychiatrist
   _____ Social Worker
   _____ Medical Doctor (i.e., primary care physician)
   _____ A medical professional (not sure of his/her specific title)
   _____ A mental health professional (not sure of his/her specific title)
   _____ Other (please describe) ______________________________
15. How long have you been diagnosed with a mental health disorder? Or when were you originally diagnosed? ______________________________________________
Assuming you experienced symptoms before you received an official diagnosis, how long have you experienced symptoms in total? ____________

16. Do any of your family members have chronic pain or mental health diagnoses, or have had so in the past? If so, who (e.g., mother, brother, grandfather...) and what conditions do/did they experience?
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

17. Please list the current medications that you are taking related to pain and mental health. Also, please list the approximate date you started taking the medication:
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

18. Please list past medications that you have taken for pain and mental health. Please list approximate dates that you started and stopped medications.
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

19. Are you currently in psychotherapy/counseling? How long have you been in therapy?
__________________________________________________________________
__________________________________________________________________

20. How many total mental health professionals (e.g. counselor, psychologist, social worker, psychiatrist, etc.) have you sought consultation or treatment with, related to your anxiety and/or depression?
   0 _____  1-2_____  3-4___  5-6___  7 or above ____
21. How many total medical professionals (e.g. physician, physical therapist, chiropractor, surgeon, etc.) have you sought consultation or treatment with, related to your chronic pain condition?

0 _____ 1-2____ 3-4___ 5-6___ 7 or above ____

22. How did you find out about this study? If you learned about this study through a flyer, where was the flyer located?

________________________________________

________________________________________
Appendix D

Informed Consent
Informed Consent
Western Michigan University
Counselor Education and Counseling Psychology

Principal Investigator: Alan Hovestadt, Ed.D.
Student Investigator: Tara L. Palmeri, M.S.Ed., LLPC
Title of Study: The Lived Experience of Individuals with Chronic Back and Neck Pain, Depression, and/or Anxiety

You have been invited to participate in a research project titled “The Lived Experience of Individuals with Chronic Back and Neck Pain, Depression, and/or Anxiety.” This project will serve as Tara Palmeri’s dissertation, for the requirements of her Ph.D. in Counseling Psychology. This consent document will explain the purpose of this research project and will go over all of the time commitments, the procedures used in the study, and the risks and benefits of participating in this research project. Please read this consent form carefully and completely and please ask any questions if you need more clarification.

What are we trying to find out in this study?
This research study is intended to explore how individuals with chronic back and/or neck pain experience and understand the relationship between physical pain and mental health, specifically depression and/or anxiety. This study also is intended to explore how individuals with chronic pain perceive talking about pain and mental health distress. Approximately 8-15 individuals will be interviewed.

Who can participate in this study?
1. Must be at least 18 years old
2. Must be diagnosed with at least one chronic back and/or neck pain condition for a duration of at least 1 year.
3. Must be diagnosed with at least one depressive or anxiety disorder for a duration of at least 1 year.
4. Must not be diagnosed with a terminally ill condition
5. Must not have had surgery in the past year.
All conditions will be reported by you. You will not be asked for any documentation (i.e. proof of diagnoses) or assessed by the researcher.

Where will this study take place?
All interviews will be held in one of two places: Either (a) the researcher’s office or (b) your home. For privacy and uniformity, it is ideal to meet at the researcher’s office, which is located at Western Michigan University’s Counseling Services (see address below); however, if you are unable to meet at Counseling Services, the researcher will come to your home.

Researcher’s office: 1903 W. Michigan Ave,
    Sindecuse Health Center, 3rd floor
    Kalamazoo, MI 49008
What is the time commitment for participating in this study?
Participation will include at least two meetings. The initial meeting will last approximately 30 minutes. At the first meeting, specifics of the study, informed consent, and confidentiality will be discussed. The researcher will answer any questions that you may have. If you decide to participate, you will be asked to set up a second appointment. At the second appointment, you will be asked to sign this informed consent document, be asked to complete a demographics form (see attached sheet), and participate in a 60-90 minute, audio-taped, semi-structured interview about your experiences with chronic pain and depression and/or anxiety. That will conclude the first two meetings.

After your interview has been transcribed by the researcher, which will occur a few weeks after your interview, you may volunteer to read your transcribed interview (at your convenience) to ensure accuracy and removal of all identifying information. This task will take approximately 20 minutes.

What will you be asked to do if you choose to participate in this study?
1. Meet with the researcher for about 30 minutes to review this consent form and the attached demographics sheet. No signature or decision regarding participation will be needed at that time. The purpose of the initial meeting is for you to learn more about the study and exactly what would be asked of you.
2. If you decide to participate, you will be asked to sign this consent form and complete the demographics questionnaire. Then you will be asked to participate in an audiotaped semi-structured interview, about your experiences with chronic back and/or neck pain and mental health concerns (i.e., depression and/or anxiety), lasting approximately 60-90 minutes
3. You will receive a copy of your typed interview transcript and be asked to review your typed interview to ensure accuracy and confidentiality.

What information is being measured during the study?
Your responses to the interview questions will be tape-recorded. After the interview, the researcher (Tara Palmeri) or the researcher’s assistant (Kelsey Nimmo) will listen to your tape, while transcribing the tape into a written format. During transcription, all identifying information (e.g., your name) will be replaced with letters (e.g., participant A, B, C, etc. . .)

What are the risks of participating in this study and how will these risks be minimized?
You may experience discomfort or become upset while talking about your experiences with chronic pain and mental health concerns. You also may become more aware of these conditions during the interview, which may increase perceived pain and/or psychological distress. The researcher (Tara Palmeri) is prepared to provide crisis counseling, should you become significantly upset. Tara has her Master’s degree in Mental Health Counseling and has a limited professional license to practice counseling in the state of Michigan (License number: 6401013345). She is supervised by Dr. Alan Hovestadt, who is the principle investigator of this study. She has also worked as a clinical therapist for approximately 5 years. In addition, she is prepared to make a
referral if you would like to seek counseling services. She will provide you with a list of community resources. You may be responsible for the cost of therapy if you choose to pursue it.

Confidentiality
All of the information you share will be kept confidential. Only the principle and student investigator will have access to your information. After your interview is transcribed, all identifying information will be removed and the tape will be destroyed. One master list of all participants’ names, signed informed consent documents, and transcripts will be kept in a locked filing cabinet in the principle investigators office, for at least 3 years, in accordance with the law. After that time-frame, all data will be destroyed.

Limits of Confidentiality
There are 2 limits of confidentiality that the researchers must follow, as they are licensed professional counselors and must abide by their ethical code of conduct. The following information is not considered confidential and will be reported either to the hospital, family member, or police: (a) if you are at risk of harming yourself or others, and (b) if you disclose abuse or neglect of a child or elderly person.

What are the benefits of participating in this study?
You may benefit from participation by being able to tell your story to an engaged listener. It is not uncommon to feel better after talking about your experiences with chronic pain and mental health issues. Furthermore, you may benefit from informing therapists and health professionals about what it is like to experience your conditions.

Are there any costs associated with participating in this study?
There are no monetary costs associated with this study, with the exception that if you choose to be interviewed at Counseling Services, you will have to provide your transportation to and from 1903 W. Michigan Avenue, Kalamazoo, MI 49008. You will be provided with a free parking pass.

Is there any compensation for participating in this study?
There is no monetary compensation for your participation.

Who will have access to the information collected during this study?
The student researcher: Tara L. Palmeri, M.S.Ed., LLPC, the assistant researcher Kelsey Nimmo, B.S., and the principal researcher: Dr. Alan Hovestadt.

What if you want to stop participating in this study?
You can choose to stop participating in the study at anytime for any reason. You may also refuse to answer any interview question that you choose not to. You will not suffer any prejudice or penalty by your decision to stop your participation, or lose any service you’d otherwise have (e.g. referral). You will experience NO consequences if you choose to withdraw from this study. The investigator can also decide to stop your participation in the study without your consent.
Should you have any questions prior to or during the study, you can contact the primary investigators, either Tara Palmeri at 607-725-5040 or tara.l.palmeri@wmich.edu, or Dr. Alan Hovestadt at 269-387-5117 or alan.hovestadt@wmich.edu. You may also contact the Chair, Human Subjects Institutional Review Board at 269-387-8293 or the Vice President for Research at 269-387-8298 if questions arise during the course of the study.

This consent document has been approved for use for one year by the Human Subjects Institutional Review Board (HSIRB) as indicated by the stamped date and signature of the board chair in the upper right corner. Do not participate in this study if the stamped date is older than one year.

I have read this informed consent document. The risks and benefits have been explained to me. I agree to take part in this study.

Please Print Your Name

_____________________________  ______________________
Participant’s signature          Date of Consent
Appendix E

Interview Protocol
Interview Protocol
Project: The Lived Experience of Individuals with Chronic Back and Neck Pain, Depression, and/or Anxiety

Time of Interview: ________________________________________________________

Date of Interview:_________________________________________________________

Location: _______________________________________________________________

Interviewer:______________________________________________________________

Interviewee Code:_________________________________________________________

Thank you for consenting to participate in this study. I would like to record the interview so the study can be as accurate as possible. You may request that the tape recorder be turned off at any point of the interview.

1. Please describe how your [insert specific CP condition, e.g., low-back pain] originally began.

2. Please describe how [insert specific CP condition, e.g., low-back pain] has affected your life from the onset of pain until the present.

3. Please describe when you first noticed any mental health symptoms, particularly those that correspond with your diagnosis of [insert psychological diagnoses].

4. Please describe how your psychological symptoms have affected your life from initial onset until the present.

5. What connections, if any, do you see between your CP condition and your mental health struggles?

6. What challenges did/do you face concerning both your physical pain and mental health distress?

7. Please tell me a little bit about the treatment that you have sought for your physical pain and mental health concerns. Do you think any treatment was particularly helpful? Or unhelpful?

8. What actions or coping strategies help or have helped you cope with your physical pain and mental health concerns?

9. From this point forward, how do you plan to live life with your [insert CP condition] and your [insert psychological diagnoses]?
10. Some people with chronic pain discuss the process of acceptance. What are your reactions to the concept of acceptance in relation to your [insert CP condition] and [insert psychological diagnoses].

11. Has experiencing [insert CP condition] and feelings of [insert psychological symptoms] changed the way you view yourself? For example, do you see yourself as a different person in any way or think about yourself differently in any way? If so, please describe that change.

12. What else would you like to tell me about your experience of living with CP and mental health concerns?

13. This next question may require you to take a few moments to reflect upon, so feel free to do so. We have been talking about your chronic pain and [insert psychological symptoms] in a fairly structured way. I am wondering how you perceived this opportunity to talk about your chronic pain and your [insert psychological symptoms], in the structured way that we just engaged in.

14. I am also wondering how you would rate the simple act of our conversing about your chronic pain and mental health, in the structured way that we did, on a scale of 1 to 10. The number 1 would indicate a negative experience, 5 being more neutral (that is neither negative nor positive), and 10 being more positive.

15. How are you feeling right now? (During question 13, a crisis assessment will be conducted to ensure the safety and wellbeing of participants)

Note* During the interview, if participants ask the researcher personal questions (e.g., if she experiences chronic pain), she will respond by saying “I would be more than happy to answer that question after the interview, but if it is okay with you, I’d like to refrain from answering right now.”

Thank you for participating in this interview. It really was an honor for you to share your journey with me. Once all interviews are complete, I am going to go through each one and pull out important themes that may help to illustrate what it’s like to struggle with both chronic physical and emotional pain. If you are interested in seeing the findings, you are more than welcome to either leave me with an e-mail address or a phone number and I can either send you a copy of the finished project or I can communicate the results to you over the phone. Would you like to do either of those? In addition, I would like to offer you the chance to read your transcribed interview to ensure accuracy. Would you like to do so? Before we conclude our interview, do you have any questions that I can answer? I want to thank you again for your participation.
Appendix F

Referral List
Referral List

In case of an emergency:

1. Gryphon Place, Help-line/Crisis hotline: **Dial 211**; this help line provides crisis intervention and referrals to health and human service agencies in the Michigan area.

2. Call or report to the Emergency Room at your local hospital.

   Borgess Hospital
   1521 Gull Rd
   Kalamazoo, MI 49048
   267-226-7000

3. Call 911

For Psychotherapy / Counseling

1. The Center for Counseling and Psychological Services (CCPS): CCPS is a training clinic in which Master's and doctoral degree students, affiliated with the department of counselor education and counseling psychology, provide counseling. Depending on income and household size, your fee may be set at $10, $20, or $30. Graduate student counselors are supervised by faculty members who are professional counselors or psychologists.

   CCPS- Kalamazoo
   1903 W Michigan Ave
   Sangren Hall, 3rd floor, Room 3341
   Kalamazoo, MI
   269-387-5105

   CCPS- Grand Rapids
   200 Ionia Street, SW
   Grand Rapids, MI
   616-771-4171

2. Dr. Samantha Wheeler is a psychologist who has experience working with individuals who suffer from chronic pain.

   She is located at:
   New Beginnings Psychological Services
   694 West Chicago St
   Coldwater, Michigan 49036
   (309) 717-0819

3. Child and Family Psychological Services: Counseling Services for all ages

   Kalamazoo Office
   Portage Office
   5340 Holiday Terrace
   1662 E. Centre Ave
   269-372-4140
   269-321-8564
4. Family and Children Services: Counseling services for all ages
   1608 Lake St.
   Kalamazoo Township, MI 49001
   269-344-0202

5. You may also call 211 to find local therapists in your area.
Appendix G

Human Subjects Institutional Review Board
Letter of Approval
Date: September 8, 2014

To: Alan Hovestadt, Principal Investigator
   Tara Palmeri, Student Investigator for dissertation
   Kelsey Nimmo, Student Investigator

From: Amy Naugle, Ph.D., Chair

Re: HSIRB Project Number 14-09-10

This letter will serve as confirmation that your research project titled "The Lived Experience of Individuals with Chronic Back and Neck Pain, Depression, and/or Anxiety" has been approved under the expedited category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note: This research may only be conducted exactly in the form it was approved. You must seek specific board approval for any changes in this project (e.g., you must request a post approval change to enroll subjects beyond the number stated in your application under "Number of subjects you want to complete the study"). Failure to obtain approval for changes will result in a protocol deviation. In addition, if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

Reapproval of the project is required if it extends beyond the termination date stated below.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: September 7, 2015