

Understanding Couples' Perceptions of the Impact of Chronic Back Pain on their Relationship

Laura A. Cross

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Eric E. McCollum, Committee Chair
Angela J. Huebner
Julia B. Sayre

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Abstract

While a substantial number of studies exist in the medical and mental health fields reflecting the physical and psychological implications for couples with chronic back pain, studies thus far have focused on the independent perceptions of each partner. Research investigating how couples jointly perceive the impact of chronic back pain on their relationship is absent. This qualitative study explored eight couples' joint perceptions of how chronic back pain has impacted their relationship. Using thematic analysis, dominant themes to emerge included (1) relationship changes, (2) influential relationship factors, and (3) making sense of pain. Limitations of the study as well as future research and clinical implications are also discussed.

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Chapter 1: Introduction

The Problem and Its Setting

2011 marked the conclusion of the ‘Decade of Pain Control and Research’ as declared by the 106th U.S. Congress ("National Center for Health Statistics", 2006). This provision was passed into law to increase awareness of the rising prevalence of pain and its financial implications for the United States. Back pain is one of the most commonly reported types of pain and affects 70% - 80% of Americans at some point in their lives (Hunter, Goodie, Oordt, & Dobmeyer, 2009; Luo, Pietrobon, Sun, Liu, & Hey, 2003). According to the Center for Disease Control ("National Center for Health Statistics", 2006), low back pain is the most common cause of job-related disability in the United States and accounts for an estimated 149 million lost days of work per year (Guo, Tanka, Halperin, & Cameron, 1999). Chronic low back pain is reported by twenty percent of adults who seek primary care in a given year (Tang & Crane, 2006). Consistent with studies reporting a notable increase in spinal injections (Carrino et al., 2002), opioid prescriptions (Luo, Pietrobon, & Hey, 2004) and surgery (Deyo & Mirza, 2006), costs associated with treating back pain patients represent a significant percentage of the substantial increase in pain-related healthcare expenditures in the United States over the last two decades (Freburger et al., 2009).

Unaccounted for in the financial assessment of how chronic back pain affects our society are the life-changing implications for those who experience it. Behavioral disorders such as depression and anxiety often co-occur with chronic back pain and can complicate the presentation of symptoms and interfere with the recommended treatment, ultimately worsening prognosis (Moitra, Sperry, Mongold, Kyle, & Selby, 2011). The function-limiting implications of chronic back pain include decreased ability to perform daily activities such as walking, sitting

and lifting objects (Manca, Eldabe, Buchser, Kumar, & Taylor, 2010). Patients are often unable to fulfill their work responsibilities, resulting in increased levels of financial distress (DeSouza & Frank, 2011).

The physical and emotional changes experienced by the patient often require their partners to adapt their behavior and expectations in order to maintain harmony in the relationship (Leonard, Cano & Johansen, 2006). As a result, partners of chronic back pain patients frequently report higher levels of depression and feel less satisfied in their marriage (Flor, Turk, & Scholz, 1987; Geisser, Cano, & Leonard, 2005). When assessed relationally, chronic back pain couples often experience a decline in marital satisfaction due to negative changes in communication (Newton-John & Williams, 2006), increased marital conflict (Schwartz, Slater, & Birchler, 1996) and a decreased desire for physical intimacy (Feinauer & Steele, 1992).

While a substantial number of studies exist in the medical and mental health fields reflecting the impact of chronic back pain on patients and their partners, studies thus far have focused on the individual perceptions of each partner. To fill a gap in the current chronic back pain literature, the present study explored the couple's joint perception of how chronic back pain impacted their relationship, the pain-related factors most contributed to the change and the meaning couples assign to the changes in the relationship.

Significance

Physical and psychological implications for patients with chronic back pain are well researched in the medical and mental health fields. Physical limitations such as difficulty walking, sitting or lifting objects often prevent patients from carrying out activities necessary for daily living, and require patients to rely on their partners to assume new roles within the relationship, such as caretaking (Manca et al., 2010). Previously independent partners become

reliant upon their partners to assist with tasks such as eating, dressing and personal hygiene. Patients often experience challenges at work due to their inability to sufficiently perform job tasks, resulting in undesired changes in the work environment and in many cases, lost days of work (Freburger et al., 2009). The duration of chronic back pain, combined with its physically disabling nature, is known to have psychological consequences for the patients. Increased rates of depression, anxiety, suicidality and financial distress are often reported (De Souza & Frank, 2011; Moitra et al., 2011; Seers & Friedli, 1996). Patients report feeling guilty for becoming a burden to others and often feel their pain is not believed, contributing to an overall loss of sense of self (Kindermans et al., 2010).

An abundance of literature also exists regarding the effects of chronic back pain on the patient's partner. The lasting nature of chronic pain requires partners to endure its consequences for an extended period of time, often manifesting into feelings of depression and anxiety for the partner (Strunin & Boden, 2004). The partner's tolerance for assuming additional care-taking and household responsibilities, as well as for the patient's anger and depression, may decline over time, causing the partner to report a perceived loss of control of their life (Strunin & Boden, 2004).

The relational nature of chronic back pain is of mutual interest to the medical and mental health fields. Research has revealed that chronic back pain couples most frequently report a decrease in marital satisfaction due to pain related changes in the physical and emotional aspects of the relationship (Newton-John & Williams, 2006). Chronic back pain couples often attribute the overall decline in marital satisfaction to increased marital conflict (Schwartz et al., 1996) and decreased desire for physical intimacy (Feinauer & Steele, 1992). Several studies identify the adverse effects of incongruent perceptions of patient physical and psychological disability on

marital satisfaction (Cano, Gillis, Heinz, Geisser, & Foran, 2004; Newton-John & Williams, 2006; Romano, Turner, & Jensen, 1997). Couples report being less satisfied in their relationship when the partner believes the patient is more physically and psychosocially disabled than is believed by the patient (Geisser et al., 2005). Additionally, discrepancies in how the partner and the patient perceive the helpfulness of partners' response to pain behaviors also negatively impact marital satisfaction (Newton-John & Williams, 2006). Partner responses that are intended to be helpful are often perceived negatively by the patient and therefore result in negative interactions (Newton-John & Williams, 2006).

The effects of chronic back pain on the couple relationship have thus far been explored through the individual perceptions of the patient and their partner. The purpose of the present study was to explore how couples jointly perceive the impact of chronic back pain on their relationship, the pain-related factors that most contribute to the change and to explore the meaning couples assign to the pain-related changes in their relationship. Results of this study sought to provide the mental health community with an improved awareness of how and when to intervene with this population.

Rationale

A substantial number of studies exist reflecting the experiences of chronic back pain couples as reported by the patient and partner individually. Relational aspects of the couple's experiences have been reported through individual partner perceptions and correlations assessed with quantitative data analysis (Cano et al., 2004). The author was unable to find an empirical study exploring how couples jointly perceive the impact of chronic back pain on their relationship over time, the pain-related factors they feel most contribute to the changes and the meaning they assign to the changes. The author sought to expand the field's understanding of

this population with a phenomenological study design in order to allow participants to share their experiences in their own words, providing data that is unavailable through quantitative measures. Interviewing couples conjointly was intended to best capture the couple's experience as a whole, rather than as individual partners.

Theoretical Framework

Theoretical frameworks selected to guide this study were phenomenology and systems theory. The phenomenological approach allowed participant couples to use their own words to share in-depth descriptions of their experience of chronic pain in their relationship. The use of systems theory provided a framework for exploring the relational implications of chronic back pain and understanding the impact of chronic back pain on the couple relationship. Principles of medical family therapy, a specific application of systems theory that incorporates medical issues, provided context for understanding how chronic back pain and the patient's medical team are linked within the couple's system.

Phenomenology. A basic assumption of phenomenological research is that truth is relative and events or situations can mean different things to different people (Dahl & Boss, 2005). Therefore understanding the phenomenon related to chronic back pain within the couple relationship requires the researcher to explore the participant couples' lived experiences and identifies how their perceptions of those experiences influence the meaning they assign to them. To gain this insight, the present study focused semi-structured interview questions on the couples' perceptions of how chronic back pain has affected their relationship.

One of the foundational assumptions of phenomenology is that researchers are not separate from the phenomena they study, and their knowledge and beliefs influence the questions they ask (Dahl & Boss, 2005). The researcher has a great deal of experience working with

physicians who surgically treat back pain patients in the operating room. In order to capture the true essence of the participant couples' experiences, it was important for the researcher to maintain an awareness of the possibility of personal influence and to attempt to remain objective throughout the study.

Phenomenology emphasizes the importance of exploring the 'whole' (Dahl & Boss, 2005, p. 66) when gathering data on a family system. The present study interviewed the partners within each couple conjointly in order to capture the couple's experience as a 'whole', rather than hear individual reflections of their experience.

Systems Theory. The evolution of systems theory in family studies is due in large part to the work of thought leaders Gregory Bateson and Don Jackson (White & Klein, 2002). Derived from Ludwig von Bertalanffy's general systems theory proposing that every organism is a dynamic system consisting of interacting parts (Nichols & Schwartz, 2006), Bateson and Jackson suggested that understanding an individual can only be achieved by viewing the system as a whole, and that a change in one part of the family system will influence all other parts of that system (White & Klein, 2002). For the present study, the researcher explored how one partner's affliction with chronic back pain creates change for the couple system. The biopsychosocial perspective inherent in medical family therapy (McDaniel, Hepworth, & Doherty, 1992) provided insight into how the patient's illness, and their medical team, influence the couple system. Interviewing the partners conjointly explored the system's experience of the impact of chronic back pain on the relationship, rather than the individual partners' experiences.

Purpose of the Study

Present research provides a general understanding of the impact of chronic back pain on the physical and psychological well being of the patient and their partner. The implications of

these changes for the couple relationship have been explored through the individual perspectives of the patient and their partner. The primary purpose of this phenomenological study was to fill a gap in the present literature by seeking to understand how couples conjointly report their experience of how chronic back pain has impacted their relationship. Therefore this study addressed the following research questions:

1. How has the couple's relationship changed as a result of the onset of chronic back pain?
2. What pain-related factors most contribute to the relationship changes?
3. What meaning do couples assign to the changes in the relationship?

Chapter 2: Literature Review

This chapter provides a clinical overview of the diagnostic criteria for non-malignant chronic pain followed by a review of the current literature on the impact of chronic back pain on the following populations: (1) the chronic back pain patient; (2) the partner of the chronic back pain patient; (3) the chronic back pain couple's relationship.

Chronic Pain

Pain is one of the most common complaints expressed to physicians and is the reason for more than 80% of all medical visits (Hunter, Goodie, Oordt, & Dobmeyer, 2009). Although migraines, arthritis and fibromyalgia are frequently reported, back pain has the highest lifetime prevalence of 70% - 80% of the population (Hunter et al., 2009; Luo et al., 2003) and a median duration of seven years. When assessing patients who present with pain, physicians conduct a thorough medical history and physical examination to identify relevant conditions or family history that may be associated with their symptoms (National Institute of Neurological Disorders and Stroke, 2003).

During the clinical assessment, the physician explores the onset, site and intensity of the pain, and considers the duration of symptoms in order to determine whether the pain is acute or chronic before defining a treatment plan (National Institute of Neurological Disorders and Stroke, 2003). Acute back pain, as defined by the International Classification of Diseases, 9th Revision (2011), is 'pain due to trauma' and therefore, the cause is often identifiable and patients are typically treated for the condition and provided a specific prognosis.

Chronic back pain, which is of specific interest for this project, is most frequently classified as pain lasting more than three months (Turk & Rudy, 1990) and is defined by the International Classification of Diseases, 9th Revision (2011) as 'pain that can range from mild to

severe, and persists or progresses over a long period of time'. Although CBP can result from a traumatic physical incident, the ability to associate the pain with a specific event is not in the diagnostic criteria for chronic pain (Beck & Clapp, 2011). The Center for Disease Control described CP as unpleasant sensory and emotional experiences that arise from actual or potential physical damage ("Prevalence of Disabilities", 2001), therefore recognizing the psychological implications of the prolonged nature of chronic pain.

Chronic Back Pain Patient

A significant body of literature exists in the medical and mental health fields regarding the scope of physical limitations and emotional distress experienced by chronic back pain patients. Physical restrictions on the patient's ability to carry out daily activities such as walking, sitting or sleeping (Manca et al., 2010) often has implications for family and work life (De Souza & Frank, 2011). Patients often experience increased emotional distress, which has been found to contribute to increased feelings of depression and decreased relationship satisfaction (Bowman, 1994).

Seers and Friedli (1996) set out to explore the meaning people assign to their chronic non-malignant pain. The sample consisted of seventy-five adult individuals who had experienced chronic pain for more than three months and had not received surgical treatment. Seventy-six percent of participants were female and fifty percent of the sample reported chronic back pain as their primary diagnosis. During a 60-90 minute semi-structured interview, field notes were taken while patients were asked to describe their pain, how the pain originated and how it has impacted their lives. The extent to which patients felt educated about their condition by the medical team, treatment measures that had taken place and patient coping strategies were explored. Following the interview, patients completed questionnaires assessing chronic pain

intensity, quality of life, coping mechanisms, anxiety and depression. Within this population, higher pain intensity correlated with increased anxiety, depression and disability. Qualitative data revealed patients often feel their physicians do not believe their pain, most frequently when the physician is unable to diagnose a cause. Patients reported feeling as though once they were prescribed pain medication, their physician viewed them as ‘cured’; however when symptoms returned, patients felt blamed for their inability to heal. Several participants reported feeling their medical team did not take the time to appropriately educate them on their diagnosis or treatment plan, which often contributed to feelings of helplessness and depression. Additional themes that evolved pertained to the impact on patients’ personality and interpersonal relationships. Patients reported an overall decrease in patience and a significant decline in mobility. These factors contributed to their inability to socialize, often creating feelings of isolation and depression. Several participants reported feeling they had lost control of their lives and no longer felt normal, which contributed to suicidal thoughts. Patients reported their family relationships were negatively impacted by a decrease in communication, loss of ‘personality’ and financial distress. Patients also reported feeling guilty toward the effort required of their partner to care for them and to assume additional responsibilities in the home. A limitation of this study that warrants consideration pertains to data collection. The researcher utilized field notes to record the interviews and independently coded the data. The resulting themes may have been influenced by which responses the researcher chose to notate or by the researcher’s own interpretation of what was reported by participants.

In a series of studies, De Souza and Frank (2007, 2011) explored patients’ experiences of chronic back pain as it pertains to physical limitations and the impact on family life and work. Eleven participants included five men and six women with a mean age of 49.3 years and mean

pain duration of 10.4 years. Unstructured interviews, 45-90 minutes in length, were recorded and transcribed verbatim followed by thematic content analysis to extract key words and phrases. Physicians performed a complete history and physical examination on each participant and detailed diagnoses were recorded for the study. The data were published in two studies reporting chronic back pain patients' experiences regarding physical disabilities (2007) and the impact of chronic back pain on family life and work (2011).

In 2007 De Souza and Frank explored the physical disabilities reported by chronic back pain participants. Consistent with previous studies (Wilson, Wilson, & Currie, 1998), most participants reported that increased pain negatively impacted their sleep patterns, often requiring patients to take additional medication at night. Mobility was also a dominant theme, with patients reporting a significant decline in their ability to walk, stand, climb stairs and perform other activities. Participants described feeling depressed, reportedly resulting from the detrimental impact chronic pain had on their independence. Having to rely on others for daily activities such as maintaining personal hygiene, eating and rising from bed often led to feelings of helplessness and distress by participant report. Participants reported their involvement in leisure activities had greatly declined, reportedly due to the exhaustion patients experienced from the increased effort required to perform everyday tasks.

In 2011, De Souza and Frank expanded upon their previous work by reporting on the impact of chronic back pain on the patients' family life and work. Participants reported valuing support and assistance from their partner; however, they also indicated feeling distressed by the degree of worry or helplessness expressed by their partner. Patients who were also parents expressed concern for confusion young children might experience due to changes in the family dynamic. Similarly, other patients were fearful of becoming a burden to their adult children

and/or interfering with their lives. All patients reported financial distress due to pain-related loss of employment or change of job function. Using phenomenology to study this population exposes readers to the participants' experiences of chronic pain; however, this particular study does not explore how their experiences have changed as they move through various stages of life.

Bowman (1994) explored the meaning of chronic back pain in a qualitative study. Using a phenomenological approach, fifteen individuals were interviewed to explore their experience with chronic back pain. Of the six themes identified, the authors reviewed two in this study; altered interactions with others and various psychological reactions to chronic back pain. Most participants reported their interactions with others had changed negatively, responding unfavorably in situations where they would have responded more appropriately in the absence of pain. These participants expressed embarrassment related to their short-tempered and irritable behavior and often withdrew from their social network. Individuals feared others did not understand their pain or believe it was real, which often led patients to feeling depressed and living more isolated lives. Several participants reported positive interactional changes such as demonstrating a commitment to functioning independently, rather than relying on others for their physical care or financial assistance. Participants reported several psychological reactions, including a determination to fight back against the pain in order to maintain control of their life. Several patients used prayer and dreams for the future to help them cope with their pain. Many participants indicated the most difficult adjustment to make was accepting their pain as a chronic condition and adapting to the associated physical and emotional limitations.

In sum, a review of the literature reveals a great deal of evidence for the physical, emotional and psychosocial implications of chronic back pain for the patient. Patients are often

required to modify their lives in undesired ways in order to accommodate pain-related limitations such as decreased physical mobility, an inability to perform necessary daily living tasks, and a lost ability to participate in enjoyable social activities. The personal nature of these limitations contributes to an increased level of emotional distress, often leaving patients feeling depressed and no longer in control of their lives. The literature suggests changes experienced by the patient as an individual impact their partner and their relationships (De Souza & Frank, 2011). The present study aimed to understand how couples experience these changes and how the changes impact the couple's relationship.

Partner of the Chronic Back Pain Patient

Flor et al. (1987) explored the marital, emotional and physical consequences experienced by spouses of chronic pain patients as compared to a control sample of spouses of diabetic patients. The study assessed how chronic pain affects the spouses' emotional and physical well-being and how it impacts their marital and sexual relationship. Participants included fifty-eight couples consisting of female spouses of chronic pain patients, forty percent of whom experienced chronic back pain. Both participants completed questionnaires to assess pain, mood, cognitive appraisal and physical symptoms, while structured interviews were used to explore the impact of chronic pain on the marital and sexual relationship. Spouses of chronic pain patients reported significantly higher rates of depression and increased reports of physical pain. Chronic pain spouses reported lower marital satisfaction, with their own mood being a strong predictor. Both spouses and patients reported a decrease in sexual interest and a decline in frequency of sexual activities. Though this study provides information regarding the impact of chronic pain on the spouse, results may differ if spouses were all male or represented both genders. Additionally, the lack of information regarding levels of marital satisfaction prior to the onset of pain prohibits

researchers from differentiating pre-existing dissatisfaction from that which is a consequence of the chronic pain problem.

Geisser et al. (2005) sought to investigate the impact of chronic back pain and disability on spousal marital satisfaction and distress, as reported by both the patient and the spouse. Their study began with an analysis to determine whether spouse mood and marital satisfaction were associated with discrepancies between spouse perception of patient disability and actual disability as reported by the patient. The impact of patient physical and psychosocial adjustment on the spouse was explored to identify any specific effect on spouse adjustment. One hundred and ten chronic back pain patients and their spouses were recruited from a university-based spine clinic. Each partner independently completed a series of surveys and participated in a diagnostic interview without discussing their responses until both phases of the study were complete. Results revealed spouses experience lower levels of marital satisfaction when patients report higher degrees of psychosocial disability. Additionally, higher spouse affective distress was associated with incongruent spouse and patient ratings of patient physical disability, specifically when spouses rated patient physical disability higher. These findings underscore the impact of patient physical and psychological distress on spouse adjustment. The authors also identify the consequences experienced by couples when their individual assessments of the patient's level of disability are incongruent. The authors stipulate that further research is necessary to gain insight into the factors that contribute to these differences.

Leonard and Cano (2006) conducted an empirical study to identify the influences on the psychological well being of spouses of chronic back pain patients. Utilizing an empathy model described by Goubert et al. (2005), top-down (observer/spouse) and bottom-up (patient) factors were explored. Participants included 113 chronic back pain patients and their spouses; criteria

for inclusion required that couples had been cohabiting for a minimum of two years and that the patient's pain condition had lasted at least six months. The couples independently completed measures assessing psychological distress, pain severity and marital satisfaction. Three categories of patient pain catastrophizing were assessed in spouses: magnification, helplessness and rumination. Results identified multiple top-down factors that influenced the psychological well being of chronic pain spouses. Higher levels of distress were found among spouses who also reported having chronic pain than by spouses without pain. Spouses reporting chronic pain were also more likely to report depressed feelings, magnification and helplessness catastrophizing than spouses without pain. In addition, patient pain severity was found to be significantly and positively associated with spouse depressive symptoms and all three categories of catastrophizing.

In sum, a review of the present literature reveals evidence for the impact of chronic back pain on the partner of the patient. Partners of chronic back pain patients are often required to respond to the patient's pain by assuming new roles within the home and adjusting to the physical and psychological changes experienced by the patient. The enduring nature of chronic pain is often detrimental to the partner's emotional well-being. Partners of chronic pain patients often become depressed and less satisfied in their marriage. Understanding the partner's response to patient pain-related change informs the present study by providing insight into the effects of chronic back pain on the partner of the patient. The goal of the present study was to understand how couples experience the impact of chronic back pain on their relationship and how their relationship changes, the pain related factors that most contribute to the change and the meaning couples assign to the changes.

Chronic Back Pain in a Relational Context

The relational nature of chronic pain is of specific interest to the present study. Interactional behaviors within the couple system are impacted by chronic pain (Bowman, 1994), creating unique stressors that occur in response to the pain problem (Schwartz et al., 1996). Applying behavioral or cognitive-behavioral theory to chronic pain provides a framework on which to base assessments of how chronic pain couples respond to chronic pain within their relationship. Operant theory incorporates how relational factors influence the development, maintenance or extinction of pain behaviors, and that pain behaviors impact marital satisfaction. While both theories are widely used in studying chronic back pain couples, they lack insight into how couples jointly perceive the impact of chronic back pain on their relationship.

Romano et al., (1997) sought to compare chronic pain couples' marital satisfaction and family environment to healthy control couples. A sample of 25 female patient couples and 25 male patient couples were recruited from a pain treatment program. Fifty-four percent of the pain patient sample specifically reported chronic back pain. A healthy control group of 33 couples were demographically matched. The pain and control patients completed several self-report measures. The Family Environment Scale (Moos, 1986) provided data regarding the degree of family cohesion, level of expressiveness, presence of conflict, family organizational structure and utilization of control within the family. Severity of patient depression was rated using The Center for Epidemiological Studies' Depression Scale (Radloff, 1977). Patient health-related physical and psychological disabilities were scored according to the Sickness Impact Profile (Bergner, Bobbitt, Carter, & Gilson, 1981). Pain behavior data was collected through observational measures (Living in Family Environments; Hops, Davis, & Longoria, 1995) as well as the Pain Behavior Checklist (Turk, Wack, & Kerns, 1985). Pain severity was assessed

using the Pain Rating Index (Melzack, 1975) and the widely used Dyadic Adjustment Scale (Spanier, 1976) was administered to measure relationship adjustment. Pain and control spouses were asked to consider patient pain behavior and level of functioning when completing the Sickness Impact Profile and Pain Behavior Checklist, and to reflect on their own experiences when completing the Family Environment Scale. Results indicated chronic pain couples experience lower levels of marital satisfaction and increased marital conflict, and perceive their families to be less cohesive than healthy couples. Spouses of chronic pain patients indicate a positive association between levels of patient depression and disability, and lower levels of spouse expressiveness, increased marital conflict and decreased family organization. These findings contribute valuable information regarding correlational relationships between chronic back pain problems and relationship dynamics; however, they do not provide insight into the experiences of each partner that might have contributed to these findings. Clinicians working with couples who experience chronic back pain would benefit from phenomenological research seeking to understand the causal relationship between each partner's experience of the pain and the negative effects on the relationship identified in this study.

Newton-John and Williams (2006) investigated the influence of patient-spouse interactions on chronic pain couples by recruiting 80 patient-spouse dyads to complete questionnaires and participate in semi-structured interviews. Subjects were recruited from an inpatient pain management program and met inclusion criteria if they had been in an exclusive relationship and cohabiting for a minimum of one year. The patient and the spouse independently completed a series of questionnaires measuring patient pain intensity, depression, marital adjustment, patient confidence and pain-specific communication. The couples then separately participated in semi-structured interviews to explore their interpretation of, and

response to, 14 vignettes representing patient pain behaviors. Qualitative analysis identified a major incongruity in the most frequently reported spouse responses to pain and those responses rated most helpful by patients. Forty-six percent of spouse-rated responses to pain behaviors involved solicitous responses such as expressions of sympathy or concern; however, they were most frequently perceived negatively by the patient. Patients indicated cognitive-behavioral related responses such as self-management recommendations were more helpful. Quantitative analysis revealed higher depression scores for patients than spouses, regardless of gender; however, female spouses reported significantly lower levels of satisfaction regarding pain-related communication within the relationship. Both male and female patients reported higher levels of marital satisfaction when pain-related communication occurred more frequently. Combining qualitative and quantitative data, the authors suggest the discrepancy in actual and desired spouse responses to pain contributes to marital dissatisfaction. Congruent with findings of Geisser et al. in 2005, this study contributes supportive data regarding the negative impact incongruent beliefs can have on the chronic pain couple relationship. Partners in this study were interviewed separately precluding any interactional dynamics from influencing each participant's responses. However, this also limits the researcher's access to the couple's joint experience of the chronic pain problem.

Romano et al. (2000) studied the impact of chronic back pain on patient behaviors by exploring the relationship between patient functioning and negative behaviors of their significant other. The study sample included 121 chronic back pain couples recruited from a multidisciplinary pain clinic. Inclusion criteria required a patient age between 20 and 65 years, the couple being in a committed relationship and having cohabited for at least six months, and patient pain duration of a minimum of three months. Individuals in the sample were similar in

gender, race, employment status and level of education. Patients and their partners completed self-report measures of pain, pain behaviors, partner responses, physical disability, depression and relationship satisfaction. Each couple was then videotaped as they jointly participated in seven household activities that required physical movement and provided observers with interactional data. Trained observers used the Living in Family Environments coding system (Hops et al., 1995) to collect verbal content as well as nonverbal affect data. Partner solicitous behavior, such as expressing sympathy or offering assistance, positively correlated with patient verbal and nonverbal pain behavior (i.e. complaining, seeking help). Partner negative responses, such as expressing frustration or assigning blame, were negatively associated with patient nonverbal pain behavior, especially in less depressed patients. Though the patient and spouse behaviors were observed in an analogue setting which limits the extent to which findings can be generalized to the home, the study validates the importance of exploring the relational nature of the chronic pain experience. Understanding how patients and their partners jointly experience the impact of pain on their relationship might provide insight into the causal effects of the pain.

In 1992, Feinauer and Steele reported how an external event such as chronic pain impacts a relationship and how each partner perceives the influence of the pain on marital adjustment. Participants included 141 married couples, including 88 female and 53 male patient couples. The couples were recruited from a hospital pain clinic and patients had experienced chronic pain for a minimum of six months. Multiple regression was used to conduct a multivariate correlational analysis where marital adjustment was the dependent variable and was measured by the Marital Adjustment Test (MAT). The Minnesota Multiphasic Personality Inventory (MMPI) was used to measure patient and spouse levels of somatizing, and patient perceived pain intensity was recorded using a scale of 0 – 10. In contrast to the majority of existing literature on chronic

pain relationships, the results of the quantitative analysis indicated the patients and their spouses did not have distressed marriages, and perceived pain or somatization did not negatively impact marital adjustment. Although 83% of patients and 77% of spouses presented with moderate to severe levels of depression, and the majority of patients reported pain-related sexual distress, participants reported a high level of marital happiness. Several factors warrant consideration when evaluating these findings. Spouses often become caretakers in marriages with chronic pain. Individuals who remain in these marriages, therefore, may be more likely to experience gratification from fulfilling this role within the marriage. Personal beliefs such as religion and culture may influence a participant's willingness to disclose feelings of dissatisfaction regarding the couple's sexual relationship or marital adjustment in general. Additionally, increased emotional intimacy may result from decreased sexual intimacy, which may please both partners. It is also important to consider when the onset of pain occurred within the marriage lifecycle. If the pain was introduced to the couple during a flexible period, such as later in life when relationship roles are well established, the couple may adjust more easily. Lastly, the utilization of quantitative measures prevents participants from sharing any feelings or beliefs that contribute to their answers, limiting the scope of data collected in the study.

Schwartz et al., (1996) evaluated the relationship between chronic back pain patients' behavioral responses to conflict, spouses' perceptions and behaviors toward the patients' pain and the relationship of these variables to the patients' adjustment to pain. Sixty-one male patients between the ages of 21-68 were recruited with their spouses after experiencing chronic back pain for the previous six months. Empirically-tested measures were used to assess each partner's perceptions of their own responses to marital conflict as well as those of their spouse. Patients and their spouses reported that patients responded to marital conflict with pain-related

behaviors more often than with typical responses to marital conflict. Although increased solicitous behaviors significantly correlated with spouse worry and concern, a positive association was found between the level of spouse anger towards the patient's pain and a negative response to the pain. Finally, Schwartz et al. found a significant and positive correlation between patient pain intensity, patient functional and psychosocial impairment and spouse's punishing responses. Limitations of self-report measures should be considered when assessing results of the study. Additionally, the sample consisted only of male patient couples limiting the generalizability of the findings to women.

Cano et al. (2004) explored the similarities between chronic back pain patient and spouse reports of patient pain severity, pain-related disability and spouse responses to patient pain. One hundred and ten patients were recruited with their spouses from a multidisciplinary pain clinic. All patients reported back pain for a minimum of six months. Empirically-tested measures were used to assess patient and spouse reports of pain-related psychosocial variables and the extent of disability and functional impairment. Structured clinical interviews were conducted to assess for depressive disorders in patients while depressive symptoms in spouses were assessed through questionnaires. The findings of the study revealed that spouses rated pain severity as more severe, and patient disability as less severe, than was reported by patients. Less congruence between spouse and patient reports of patient physical and psychosocial disability were found in female patient couples and in couples where the patient was depressed.

In sum, this literature review on the relational context of chronic back pain supports the findings revealed in the two previous sections. Patients and their partners each report increased feelings of depression, a decline in marital satisfaction and changes in how they interact with one another. This review also reveals that couples experience increased marital conflict and

decreased family cohesion due to pain-related changes in the relationship. Incongruent perceptions of the patient's pain experience were found to correlate with the degree of marital dissatisfaction for both partners.

Little is known about how couples jointly perceive the impact of chronic back pain on their relationship when viewed as a system. The aim of the present study was to explore the couple's joint perception of how chronic back pain has changed their relationship and explore their experiences of those changes through a systems theory lens.

Chapter 3: Methods

Design of the Study

The purpose of this study was to gain an in-depth understanding of the meaning couples assign to their perceptions of how chronic back pain has impacted their relationship and what factors the couple perceives have most contributed to that change. Qualitative methodology was used because it empowers participants to share their stories and uses their own voice to describe their experiences (Creswell, 2007). Semi-structured interviews were used to capture the essence of the lived experiences of chronic back pain couples and their perceptions of how the pain has impacted their relationship. The data was analyzed using thematic analysis to organize and illustrate the themes derived from the study.

Participants

The researcher recruited eight chronic back pain patients and their partners through personal contact with local neurosurgery, orthopedic surgery and pain management offices specializing in spine conditions. To ensure participants' relationships have been impacted by the experience of chronic back pain, random sampling was used with the following purposive criteria: (a) adult couples where one partner has been diagnosed with chronic back pain (pain lasting 3 or more months); (b) the couple has been cohabiting for a minimum of one year; (c) the couple reports chronic pain has impacted their relationship; (d) the couple's relationship predates the onset of pain.

Recruiting began after the researcher obtained approval for the study by the Institutional Review Board of Virginia Polytechnic University. Participation in the study was voluntary and couples were not incentivized or compensated for their time. All data was stored securely, ensuring participant confidentiality.

Procedures

The researcher has extensive professional experience working with physicians who treat back pain in the operating room, which has guided the researcher's interest in this phenomenon. To protect the integrity of the data collection and analysis processes, the researcher bracketed current beliefs and presumptions regarding this population in a separate journal.

The recruitment process began by contacting local neurosurgeons, orthopedic surgeons and pain management physicians who specialize in treating conditions of the spine. The researcher explained the purpose of this study and requested the physician's assistance in identifying possible participants. Upon agreeing to help facilitate the study, physicians were asked to approach chronic low back pain patients who have been cohabiting with their partner for a minimum of one year in one of two ways:

1. Appropriate patients identified during a current office visit were informed of the study and offered the opportunity to participate. Interested patients were asked to sign the physician's release of information form consenting for the physician's office to provide the researcher with the patient's name and contact information. The participant also received a flyer created by the researcher providing the purpose of the study and the researcher's telephone number and email address. The patient's information was then provided to the researcher.
2. Appropriate patients identified by the physician and medical staff who did not visit the office during the recruiting period received the flyer by mail explaining the purpose of the study and offering an invitation to participate. The researcher folded the flyers and inserted them into stamped envelopes and sealed them. The physician office staff addressed the envelopes to the identified patients and mailed them.

Interested patients were instructed to contact the researcher directly via the telephone number or email address provided on the flyer.

Once contact information was obtained, the researcher called eligible participants to confirm their partner's willingness to participate in the interview. During this initial phone call, participants were screened to ensure they fulfilled the purposive criteria previously described. Of the fourteen interested couples, six did not meet the criteria and were thanked for their interest in the study. The reason for their exclusion was explained. The eight couples who met the inclusion criteria were provided with an overview of the purpose and design of the study and asked to schedule a 90-minute meeting. The time and location for the interview was mutually decided, with a focus on maintaining confidentiality during the meeting.

The researcher began the interview by reviewing the purpose of the study, possible risks and benefits, and confidentiality. The recorded interview began only after both partners signed the informed consent form. Each partner independently completed a brief demographic questionnaire asking the following questions: (a) age, (b) gender, (c) duration of relationship with partner, (d) duration of patient pain, (e) rate patient pain 0-10. Question (e) was included to provide the researcher with a subjective measure of the level of congruence within the couple regarding the patient's perceived level of pain. As previously stated, patients in relationships where their partner's rating of patient pain is not congruent with their own, often report increased levels of depression, with couples also reporting decreased marital satisfaction. To ensure the researcher heard the participants' stories unencumbered by this assumption, she did not read the questionnaire until the semi-structured interview was complete. At that time the researcher reviewed the answer to question (e) and asked a final probing question regarding congruence only if the subject had not already been addressed in the couple's statements.

The researcher then conducted the semi-structured interview as outlined below and recorded the interview using an audio recording device. Active listening was used to understand how couples perceive the impact chronic pain has had on their relationship. Probing questions were used when necessary to clarify the participants' message and to gain detailed insight into the meaning they assign to their experiences.

Upon completion of the interview, the researcher explained the data analysis process and participants were asked if they would like to receive a copy of the study results. The researcher notated the participant's interest on the interview demographic questionnaire and participants will receive a copy of the study when it is published.

Audiotapes were transcribed verbatim and saved with the demographic questionnaire. Unique codes were assigned to each interview and its respective questionnaire during the transcription process allowing all identifiable information to be removed. Study codes and data transcripts were stored in separate password-protected files on the researcher's private laptop and backup hard drive. The audio files were stored in a secure location accessible only by the researcher and thesis advisor until transcription was complete, at which time they were destroyed.

Instrument

The semi-structured interview included open questions intended to facilitate the researcher's understanding of how couples perceive the impact of chronic back pain on their relationship and the meaning they assign to the pain-related changes. Probing questions were used as needed to elicit rich and detailed experiences from participants, allowing for a new understanding of chronic pain in couples. Interview questions included:

1. Please describe how your relationship has changed over time as a result of the onset of the patient's chronic back pain.
 - a. Which aspects of your relationship have changed the most?
2. Some partners find it difficult to really appreciate the intensity of their partner's pain, and some couples say they have differing opinions on the physical limitations of the patient. What has been your experience in this area?
3. When the pain causes conflict in your relationship, or is the source of it, how do you work through it?
4. What, if anything, has helped you adapt to the presence of chronic pain in your relationship or to the resulting changes in your relationship?
5. How have these pain-related changes affected how you view the future of your relationship?
6. How, if at all, has the chronic back pain had a positive impact on your relationship?
7. Has the pain impacted your relationship in any way that we have not discussed here?
If so, please share your experience.

The interview was tested on two non-participant chronic back pain couples to ensure the questions prompt participants to reflect upon the desired phenomenon.

Data Analyses

All interviews were transcribed verbatim and thematic analysis was applied as outlined by Braun and Clarke (2006). Transcripts were read twice while listening to the audio recording to ensure accuracy and to allow the researcher to become familiarized with the data. After creating an initial list of interesting features of the data, initial codes were generated. The researcher then coded the entire data set while making notes of emerging themes and ideas in a

separate journal. Related codes were then collated and all data relevant to each possible theme were gathered. How well each theme applied to coded data extracts, as well as to the entire data set, was assessed by forming a thematic ‘map’ (Braun & Clarke, p. 91). To maintain the meaningful value of each theme, the researcher omitted themes not sufficiently supported by data, and combined themes that were not significantly different. Themes were then refined by “identifying the essence of what each theme is about (as well as the themes overall), and determining what aspect of the data each theme captures” (Braun & Clarke, p. 92). Themes were defined and named only when the collated data extracts were found to create a sound pattern, and the themes were believed to accurately represent the essence of the experiences shared by couples whose relationship has been impacted by chronic back pain. Credibility of coding was maintained by utilizing a second coder, Thesis Committee Chair, Dr. Eric McCollum.

Finally, the experiences of couples living with the impact of chronic back pain were reflected as themes in the results section of this thesis. Vivid examples were used to tell their complex stories and sufficient support regarding the prevalence within and across themes was provided.

Chapter 4: Manuscript

Abstract

While a substantial number of studies exist in the medical and mental health fields reflecting the physical and psychological implications for couples with chronic back pain, studies thus far have focused on the independent perceptions of each partner. Research investigating how couples jointly perceive the impact of chronic back pain on their relationship is absent. This qualitative study explored eight couples' joint perceptions of how chronic back pain has impacted their relationship. Using thematic analysis, dominant themes to emerge included (1) relationship changes, (2) influential relationship factors, and (3) making sense of pain. Limitations of the study as well as future research and clinical implications are also discussed.

Understanding Couples' Perceptions of the Impact of Chronic Back Pain on their
Relationship: A Family Systems Perspective

Laura A. Cross

Introduction

2011 marked the conclusion of the 'Decade of Pain Control and Research' as declared by the 106th U.S. Congress ("National Center for Health Statistics," 2006). This provision was passed into law to increase awareness of the rising prevalence of pain and its financial implications for the United States. Back pain is one of the most commonly reported types of pain and affects 70% - 80% of Americans at some point in their lives (Hunter, Goodie, Oordt, & Dobmeyer, 2009; Luo, Pietrobon, Sun, Liu, & Hey, 2003). According to the Center for Disease Control ("National Center for Health Statistics," 2006), low back pain is the most common cause of job-related disability in the United States and accounts for an estimated 149 million lost days of work per year (Guo, Tanka, Halperin, & Cameron, 1999). Chronic low back pain is reported by twenty percent of adults who seek primary care in a given year (Tang & Crane, 2006). Consistent with studies reporting a notable increase in spinal injections (Carrino et al., 2002), opioid prescriptions (Luo, Pietrobon, & Hey, 2004) and surgery (Deyo & Mirza, 2006), costs associated with treating back pain patients represent a significant percentage of the substantial increase in pain-related healthcare expenditures in the United States over the last two decades (Freburger et al., 2009).

Unaccounted for in the financial assessment of how chronic back pain, (CBP), affects our society are the life-changing implications for those who experience it. A substantial number of studies exist in the medical and mental health fields reflecting the physical and psychological impact on CBP patients and their relationships. Function-limiting implications of CBP such as a

decreased ability to walk, sit and lift objects (Manca, Eldabe, Buchser, Kumar, & Taylor, 2010) can challenge the patient's ability to sufficiently perform job tasks, often resulting in lost days of work (Freburger et al., 2009). Previously independent patients become reliant upon their partners to assist with tasks such as eating, dressing and personal hygiene, requiring their partner to assume a caretaking role within the relationship (Manca et al., 2010). These physical changes often necessitate both partners adapting their behaviors and expectations in order to maintain harmony in the relationship (Leonard, Cano & Johansen, 2006).

The duration of chronic back pain is known to have psychological consequences for patients and their partners. Increased rates of depression, anxiety, suicidality and financial distress are often reported (De Souza & Frank, 2011; Moitra, Sperry, Mongold, Kyle & Selby, 2011; Seers & Friedli, 1996). Co-occurring behavioral disorders can complicate the presentation and treatment of symptoms, ultimately worsening prognosis (Moitra et al., 2011). The lasting nature of chronic pain requires partners to endure its consequences for an extended period of time, often manifesting into feelings of depression and anxiety for the partner (Strunin & Boden, 2004). Therefore, partners of CBP patients frequently report higher levels of depression and feel less satisfied in their marriage (Flor, Turk, & Scholz, 1987; Geisser, Cano, & Leonard, 2005). Research has revealed that CBP couples most frequently report decreased marital satisfaction due to pain related changes in the physical and emotional aspects of the relationship (Newton-John & Williams, 2006).

The effects of chronic back pain on the marital relationship have previously been explored through individual partner perceptions and correlations were assessed and reported through quantitative data analysis (Cano et al., 2004). This author was unable to find an empirical study exploring how couples jointly report their perceptions of how CBP has impacted

their relationship, the pain-related factors they feel most contribute to the changes and the meaning they assign to those changes. To fill a gap in the current chronic back pain literature, the present phenomenological study interviewed couples conjointly to best capture the couple's experience as a whole, rather than as individual partners. Results of this study will provide the medical and mental health communities with improved awareness of the mental health needs of couples who experience chronic back pain. Therefore, this study aimed to address the following research questions:

1. How has the couple's relationship changed as a result of the onset of chronic back pain?
2. What pain-related factors most contribute to the relationship changes?
3. What meaning do couples assign to the changes in the relationship?

Methods

Chronic back pain patients and their partners were recruited for the study using random sampling techniques with purposive criteria. The researcher contacted local neurosurgery, orthopedic surgery and pain management physicians who specialize in spine conditions to review the purpose of this study and to request their assistance in identifying possible participants. Upon agreeing to help facilitate the study, physicians were asked to invite their chronic low back pain patients who have been cohabiting with their partner for a minimum of one year to participate in the research. Fourteen interested patients authorized their physician to provide their contact information to the researcher. The researcher then contacted eligible participants to confirm their partner's willingness to participate in the interview and to ensure they fulfilled the following purposive criteria: (a) adult couples where one partner has been diagnosed with CBP (pain lasting 3 or more months), (b) the couple has been cohabiting for a minimum of one year,

(c) the couple reports chronic pain has impacted their relationship, (d) the couple's relationship predates the onset of pain. Six couples did not meet all four of the inclusion criteria and were therefore informed of the reason for their exclusion and thanked for their interest. The remaining eight couples selected a mutually convenient date, time and location for the 90-minute interview. The study protocol was approved by the Institutional Review Board at Virginia Polytechnic Institute and State University prior to recruitment and data collection.

Eight couples participated in a semi-structured interview in their home. Open-ended questions were used to elicit information about their experience. Participants were asked to describe how CBP has impacted their relationship and to describe the pain-related factors they feel have most contributed to those changes. Active listening and probing questions were used throughout the interview to clarify the participants' messages and to further explore the meaning they assign to their experiences.

The audio-recorded interviews were transcribed verbatim and thematic analysis was applied as outlined by Braun and Clarke (2006). The researcher became immersed in the data by reading each transcript twice while listening to the audio recording. Once thoroughly familiar with the data, Systems Theory was used as the guiding lens to generate initial codes. The researcher then coded and collated the data set while making note of emerging themes. Possible overarching themes supported by the codes were identified and the data extracts were organized. The relationships between codes and between themes were reviewed to differentiate between overarching themes and sub-themes. Themes were then refined by "identifying the essence of what each theme is about (as well as the themes overall), and determining what aspect of the data each theme captures" (Braun & Clarke, p. 92). Themes were defined and named only when they were believed to accurately represent the essence of the experiences shared by couples whose

relationship has been impacted by CBP. To ensure credibility of the coding process, the researcher participated in discussions with the second author to determine final themes and sub-themes. The themes and sub-themes informed the results of the study.

Results

Participants

The sample consisted of eight Caucasian, heterosexual couples who lived in the Washington, DC metropolitan area and rural Virginia. At the time of the interview couples had been married between 16 and 52 years with an average length of marriage of 31 years. The average age of patients and their partners was 57 and 56 years, respectively. Five patients were female and three were male. Average duration of patient CBP was 11.5 years and three partners reported they had also experienced back pain at some point in their relationship. Both partners in the couple were asked to independently rate the patient's pain on a scale of 0 (no pain) to 10 (severe, debilitating pain) to provide a subjective comparison of their perceptions of patient pain intensity. The mean difference within dyads ranged from -2, with partner's perception of patient pain as more severe than was rated by the patient, to 1, with patients rating their own pain more severely than was rated by their partners. The mean absolute value of the difference was .875, illustrating that couples in this population were relatively congruent in their assessment of patient pain intensity. Fifty percent of couples were presently raising children in the home, three of the remaining four couples had adult children living outside the home and one couple did not have children. Three patients were presently employed, three patients reported retiring for non-medical reasons and two patients reported they were unable to work due to pain-related disabilities. Socioeconomically, six couples were middle class and two were lower class. For a complete summary of participant demographics, refer to Table 1.

Table 1

Participant Demographics

Couple	Gender	Age	Years together	Pain Duration in Years	Patient Self Rating of Pain	Spouse Rating of Patient Pain	Mean Difference in Pain Rating
1	M	68	44	18	8		1
	F	65	44			7	
2	M	47	20			7	1
	F	44	20	8	8		
3	M	51	25	5	7		-1
	F	49	25			8	
4	M	59	35			8	-2
	F	64	35	35	6		
5	M	40	16			7	-1
	F	39	16	8	6		
6	M	70	52	15	8		0
	F	68	52			8	
7	M	46	16			7.5	0.5
	F	48	16	10	8		
8	M	75	42			8	-0.5
	F	68	42	12	7.5		
Mean Absolute Value of the Difference:							0.875

Note. Shaded rows identify the patient in each couple.

Relationships Changes

All couples reported their relationship changed in some way after the onset of chronic back pain. Commonly reported changes fell into four categories: loss of shared activities, move toward dependence, a shift in intimacy and increased awareness of empathy.

Loss of shared activities. All eight couples found the physical limitations of chronic back pain significantly altered their ability to participate in certain activities together. Couples

felt this loss created the need to discover new commonalities. Katie¹ described how she and Dave needed to find new ways to connect on a regular basis after Dave's pain began:

We've had to learn how to be friends at a different level because a lot of our relationship before was always based on activities together and now it's based on care and being together.

Three couples felt the loss of shared activities resulted in both partners spending more time independently exploring their own individual interests. Susie described her experience:

The things we used to do together have absolutely decreased. I mean, we used to go on a regular basis downtown Washington, maybe to the museums, and we would go out to restaurants on a regular basis. We don't do that anymore. Well, I think our own individual hobbies that we don't participate in with each other have become a bit stronger. For example, I'm an avid theatre-goer, but he is not. His big interest is trains. I don't participate in that.

Five couples reported the patient's inability to sit or stand for an extended period of time impeded their ability to participate in social and family events as a couple, denying them of some enriching life experiences. Debbie described how Richard's back pain has excluded him from participating in certain activities with their grandchildren, depriving them of the joy found in experiencing these events together as grandparents. She said:

I think the quality of life has substantially been impacted both for him and for me because you know, I can go by myself, but it's not the same going by myself to certain things. You know, our grandchildren are young and I got tickets to a holiday event and

¹ To protect the confidentiality of participants, all names have been changed to pseudonyms.

of course he couldn't go so I ended up taking the kids by myself. And that would've been a great thing for the two of us to have done together with our grandchildren.

Although all couples were disappointed to lose the enjoyment they derived from sharing in activities together, half of the participants also realized a positive consequence in that they now spend more quality time together. Lou's description of his experience with Peg adequately summarized the feelings of these couples:

Well, I'm back inside the house more, just being with her. The pain put us together a whole lot more and we can talk about old times a whole lot more. We can sit and enjoy talking to each other.

Move toward dependency. Common among all couples was the pain-driven need for patients to become more dependent on their partner. Previously autonomous patients were no longer entirely self-sufficient and were forced to be vulnerable and accept help from others. Five patients indicated they initially had difficulty surrendering to the pain's limitations and resisted relying on their partner until the constraints of their pain revoked them of their choice. Julie and Brent described how time helped her adapt and the benefit he experienced from being able to help his wife:

Julie: I'm very independent. I don't want help from other people. I don't like to be seen as someone who needs help in any way. You know, 'I'll take care of myself' type of thing. I feel like I've gotten better about that over time, though. The back pain forced me to, it forced me to have to take help from him and other people.

Brent: And I love to feel like I can help out, or contribute to things she can't do, or would prefer not to do. It's nice to be able to feel like I can contribute.

Though most participants initially resisted the necessary compromise in their independence, six couples perceive their relationship benefited from the shift toward dependence. These couples retrospectively viewed their improved ability to depend on each other as a new strength of their relationship. Terri described how this process improved her relationship with Brad:

Well, it gave us more of a 'oneness' versus individuality. We're working on the same page, we're doing things together instead of individually. It gives you the ability to be more comfortable with whatever life gives us in the future, we'll be able to handle it as a couple.

Moreover, a few partners also felt their independence was impacted due to pain-related changes in the patient. One partner felt frustrated when her husband's CBP imposed upon her independent nature by requiring her to seek help from others. Whitney shared the following example:

There was a bad snowstorm about two years ago and his back was killing him. He literally couldn't pick up a shovel. Normally I wouldn't ask for help, but I had no choice. He couldn't help. I had to just suck it up and I had to put the word out to the neighbors. So you know, you sort of have to ask for help in ways that you normally wouldn't. And you know, that was one of the toughest times where, it was tough for me to stay focused on remembering 'don't get resentful that he's not helping'.

Another partner felt her husband's CBP forced her to adapt to being independent in her social life due to his inability to participate in most activities; however, she believed embracing and cultivating this type of independence helped alleviate the temptation to resent the limitations of his CBP.

Shift in intimacy. Most couples reported a decline in sexual intimacy, particularly during pain episodes, due to the physical limitations and discomfort caused by CBP. Ashley and Mitch described how Ashley's CBP has negatively impact their physical connection in multiple ways.

Ashley: I mean, I'm not the physical being I used to be and at the end of the day, if your back is screaming, there's not a whole lot of room in there to love on somebody else.

Mitch: And that can be as simple as cuddling. To someone with back pain, cuddling is like 'no – just don't touch me'.

Ashley: It's even how they cuddle, because the minute you try to say 'okay, your arm right there is causing a screaming pain in my back'it's just not the same.

While most participants viewed the decrease in sexual intimacy as a loss, more than half believe the CBP created an opportunity to strengthen their emotional connection. Katie described her appreciation for the more profound friendship she has developed with Dave due their need to seek connection in non-sexual ways:

We've had to learn how to be close at a different level, you know. So we've grown to be deeper friends and we're each other's best friend now, whereas I couldn't say we were beforehand.

All couples reported the shift in intimacy did not compromise the stability of their relationship and that 'the mental, the togetherness, the being a part of one another is far more important and more rewarding than anything in the bedroom'. Similarly, spouses felt their love for the patient was unchanged by the onset of pain. Peg described her feelings:

Well, sex changes, but I don't find anything wrong with it because I mean we're at the stage where we're more for companionship, you know? I still love him as much as I did when I was in my 20's when we were very sexually active. That love hasn't changed.

Awareness of empathy. Couples reported CBP improved their awareness of empathy within the relationship. Their common experiences pertain to three aspects of empathy: the influence of the partner's understanding of the patient's pain on their ability to feel and express empathy, new opportunities to experience their partner's empathic gestures, and patient behaviors that impede the partner's ability to feel and express empathy.

When asked to rate patient pain for this study, with-in couple ratings were very close; however, during the interview most couples questioned the partner's ability to accurately assess the patient's pain. In particular, the five partners who had never experienced back pain felt their empathy for the patient's pain was limited to their intellectual understanding of it. Susie and Jake shared their perception of Jake's ability to understand her pain and how he has learned to rely on behavioral cues for insight into her pain:

Susie: I don't think anybody can understand 100% unless you actually experience that pain yourself. There is no way. You can describe it, your physical face, your body can say it but unless you actually experience it yourself then no, the other person can't know. It's not possible. They can't understand.

Jake: Well, I have more concern for her now because of what she has gone through and what I've watched over the years. And I do things for her now that before she would absolutely have refused any help, so it makes me more sensitive to her, to love her more.

The remaining three partners encountered some form of back pain during their relationship and believe the experience transformed their ability to understand the patient's pain.

Being able to consider the patient's pain from an experiential perspective inspired them to respond to CBP episodes more empathically.

Chronic back pain was perceived by four patients as an opportunity to experience their partner's concern in ways they otherwise would not have encountered. Whitney described the emotional benefit of experiencing her husband's validation when he responded to her physical needs:

I will say this, on some level, realizing that the other person is there for you feels good. So when he went into the family budget to buy a new mattress for me, that really told me 'ok, he finally gets it.' He finally gets how bad it is for me to wake up every day crying or wake up in the middle of the night crying because my back hurts so bad. So it said that he really was there for me and I appreciated that.

Six of eight couples described situations when the partners' desire to respond empathically to a pain episode is hindered by the patient's own actions. This appears to most commonly occur when the patient's disregard for their partner's suggestion to limit physical activity intensifies their pain. Brad shared his frustration with Terri when she ignores his attempt to protect her from additional pain:

She would go outside and she'd get focused on a project like weeding her gardens or whatever she's doing, and she'll go on and on and on and she won't stop. Every time she does that her back would get stiff so I would be saying 'Terri, stop now, you've been out there for two hours and you know what's going to happen'. Three hours later she's still out there doing it. Next morning, same story repeated all over again and I'd sit there, wanting to say 'you know what, you did it to yourself'.

Influential Relationship Factors

As couples shared how their relationships have changed due to CBP, they revealed factors they believe influenced how they adapted to the changes. These factors include: attitude, communication, hope and boundaries.

Attitude. Couples reported their individual attitudes greatly affected how they responded to CBP as a couple. For six patients, focusing on the positive aspects of the relationship helped them tolerate the negative impact of the pain. Ashley described her perspective:

You can choose – it depends on what you’re looking for. You can chose to look left or right and where your focus lies is going to define what you think. If you focus on the negative in the relationship, that is where you’ll stay. You’ve got to let go and focus on the positive. You’ve got to focus on what you can do, not what you can’t do.

Similarly, the majority of partners felt that maintaining a positive attitude toward the future empowered them with the necessary strength to tolerate the present pain-related challenges in the relationship. Jake described the helpful effects of his optimistic view on his experience of Susie’s CBP:

Well, I always feel things are going to improve no matter what the problem is. If you look at things that way I think you have a better outlook on life than if you’re looking at the negative side all the time. I always think things are going to get better, even though in reality that might not be the case all the time. But in this case, it helps me greatly.

Tomorrow the sun’s going to shine again and we’ll go on from there.

Though most couples presented optimistic attitudes, few spoke candidly about the effort required to maintain a positive outlook. Katie described the stress she experiences from proactively managing Dave’s tendency to succumb to the depressive affects of CBP:

Well, like I say to Dave, “look after the things you can look after”. Because I think the small things do matter and they help not only our relationship, but it helps our children. It helps Dave’s mental outlook and, I think that’s been my biggest frustration....the pain is one thing but helping Dave to not go down the dark wormhole of despair has been the most demanding thing on my relationship with him, you know?

Communication. The invisible nature of CBP requires couples to rely primarily on verbal communication and conspicuous non-verbal cues to ensure both partners are aware of the patient’s pain experience. All couples suggested effective communication within the relationship was critical for healthy adjustment to the pain-related changes and to allow partners to provide appropriate support. Patients acknowledged their responsibility for clearly communicating the extent of their pain and associated limitations to their partner. Ashley and Mitch shared their perspective:

Ashley: It’s got to start with me first. I mean if I’m not going to be open and cognizant of what I’m feeling and how I’m behaving, then I can’t expect him to be, you know?

Mitch: And I can definitely not get it at times because I may be attributing a certain behavior that she’ll have as something else....maybe something at work, or something the kids did....when really it could be the back pain.

Most partners felt patients had a propensity to minimize the intensity of their pain, thwarting their ability to properly discern the patient’s level of discomfort. Brent described the misunderstanding that can occur when Julie underestimates her pain.

I’m sure you’re in pain a lot more than you tell me and that pain – as a result of that pain, it probably manifests itself in other ways, just to make – you know, you’re probably more irritable as a result and it could be a result of the back pain.

Hope. Three couples described the influence of feeling hopeful about a pain-free future on their mood and attitude. Susie described why hope is critical for her ability to remain optimistic about her future:

Hope is yeah, you've got to have hope. Can't be pessimistic. What are you? Are you a pessimist or an optimist? I'm an optimist. I have hope so I have a positive outlook on life.

Two patients who have endured severe CBP for longer periods of time reported their hope vacillates with their confidence in the medical community's ability to address their problem. If they lose faith in their physician's ability to provide a solution, their hope for life without pain begins to fade, therefore impacting their mood and attitude. Dave described his difficult experience:

I've become very negative, you know, and I think it's just that when you have had so many surgeries and you put all of your faith in the medical community, and then you realize that actually some of the time they are just guessing too. I think that blew my – there's a big, big balloon that got popped, you know. I thought 'you've got pain, medicine's going to be able to fix it'. The burning pain I've experienced and the medication didn't even touch the pain, I think that's when I started to panic internally that oh my goodness, I've got stuff going on in my body that they can't help with.

In contrast, one partner expressed difficulty in feeling hopeful when her husband was presented with a new surgical treatment option due to the complications he experienced in previous surgeries. Knowing the positive influence of hope on Lou's outlook on the future, Peg supported his decision to explore the opportunity. She described their experience:

Yeah, it lifted his spirits when the doctor said ‘you haven’t seen a back surgeon so we’ll send you to the back surgeon’. He got lit up about it. It gave him hope. But I thought ‘Oh my God, no. Not another surgery!’ The last surgery he had, he almost died. But whatever Lou wants, you know? It’s his body. But he’s just got to know my fear.

Boundaries. Couples reported healthy boundaries were an integral part of preserving their relationship during CBP episodes. All patients reflected upon their desire to sustain what remains of their independence while tolerating CBP episodes, and the possibility for their partner to breach that boundary through their efforts to express concern. Susie described Jake’s ability to offer suggestions while respecting her independence as she made her own decisions.

Yes, my stubbornness comes out. He will say, as an example ‘don’t you think you ought to stop now?’ And I say ‘No, because I want to finish it and I have this picture of what I need to do and only I can do it’. He is a gentleman. He’s patient. He has been, still is very patient with me.

Similarly, partners described the challenges of overcoming their own concerns in order to honor the patient’s boundary designed to protect their independence. Peg described how this is often an emotional challenge:

Oh, a lot of times he’ll be out trying to do something I know he shouldn’t be trying to do. I’m not going to yell at him and say ‘get in here’ and ‘don’t be doing that’, but I’ll stand at that window and I feel like sometimes I’m going to cry because I know he’s trying to do what his heart wants him to do but he can’t do it. He’s got to learn acceptance, you know?

Although all partners had some degree of difficulty separating themselves from their partner’s pain, only two couples talked about the benefit they experienced by defining specific

boundaries to protect themselves from owning the patient's pain-related emotions. Katie described how, although she wanted to support Dave, she was aware of her propensity to absorb his emotion in difficult times and become less strong; therefore, she created space to gain perspective and defined a boundary within their relationship. The purpose of the boundary was not only for Katie's mental well-being, but also to preserve their relationship. They explain:

Dave: I was beginning to drown her. It felt like we were both drowning, and I was just pulling....

Katie: That's what I told him. I feel like you are going to suffocate me and it got to the point where, you know, I had this visual of us both out in the water and we both need um, a life jacket thrown in our direction. But I can't actually get any closer to help him because you know, when someone is drowning they will push you under out of panic and fear. And so I just had to put a healthy boundary around myself. I explained to him 'it's not that I love you any less, but it's if I allow you to just completely swallow me up then I will go under too.'

Making Sense of Chronic Back Pain

Participants were asked several questions to explore how they came to understand the role of pain in their relationship. Resulting themes included viewing the patient's pain in perspective of greater challenges experienced by others, accepting the presence of pain as a new normal and experiencing a renewed commitment to one another resulting from jointly surmounting the obstacles of CBP in their relationship.

Perspective-taking. Common among all participants was their choice to assess the impact of CBP on their relationship in perspective of more severe life events experienced by

others. For example, Susie described how her dear friend's courageous battle with cancer enlightened her interpretation of the impact of her CBP on her relationship with Jake:

One of my dearest friends was diagnosed with a very rare form of cancer. She went through the pain, she went through the suffering, but her attitude in life was extraordinary. And there is no comparison with what I have gone through both past and presently. There is no comparison.

Three couples shared details regarding serious medical conditions they previously experienced together that also provided perspective while assessing the pain-related changes in their relationship. Moreover, two couples described their willingness to tolerate the limitations of CBP because they are grateful to still be experiencing life together at a later age. Peg said:

I look at all the other couples down there and a lot of them have lost their husbands or wives, so I don't mind helping him! He's there with me, you know? That's how I look at it.

Of equal interest were three couples who, when assessing their experience retrospectively, felt the process of adapting to CBP within their relationship prepared them for more serious challenges later in life. Brad and Terri believe encountering Terri's chronic back pain early in their marriage prepared them for two life-threatening health challenges later in life.

Terri described her perspective:

The experience of having that back pain problem and having to depend on each other, we were kind of forced into a couple attitude versus a single mind. The back pain actually helped our relationship grow into that. Maybe that was something, you know, everything's for a reason and you know, maybe we wouldn't have been able to get

through those other two things if we didn't have that experience of needing to depend on each other with the back. I don't know....

Acceptance/new normal. Couples appeared to be at various stages of acceptance regarding the chronicity of their pain and the changes imparted on the relationship. At the time of the interview, two patients were actively experiencing pain with treatment pending in the imminent future and one patient had recently experienced a surgery self-reported as successful. Common among the five remaining participants was their desire to accept the pain-related changes in their relationship and to adjust to a 'new normal' with CBP. Terri described how adapting their lives to the pain-related changes positively affected their ability to accept the limitations of CBP:

I think for me, adapting to the chronic pain has helped me accept my limitations and I won't suggest to go on a five day hike or something with him and then get myself in a situation where we'd be miserable together. So I think I've adjusted my lifestyle to accommodate what we can do together instead of wanting to do other things.

Similarly, Katie described how ceasing to resist her husband's CBP by creating space for it in the relationship helped her accept its impact:

I think I've just made room for the pain and allowed Dave to be in pain and realized that I can't fix it and um, but what I can do is wake up and be the happiest person or the best person that I can be in that moment, in that day and then allow Dave to be who he needs to be in that day whether that's in pain or if he's having a good day, you know?

Debbie described her appreciation for her happy marriage in spite of the limitations CBP has imposed upon them at this phase of their life:

When you take your marriage vows it says in sickness and in health, so you're not guaranteed rosy days every day of the married life. We've had a wonderful marriage, you know, and I don't resent the fact that he has limitations. I see it as just a way of ...the way of life.

Reinforced commitment. All couples reported CBP had a positive impact on their relationship in some way and reinforced their view of their commitment to each other. Several couples felt that adapting to the pain-related changes in their relationship strengthened their confidence in their ability to withstand challenges in the future. Brad shared his example with Susie:

I think it gives us the ability to be more comfortable with whatever life gives us in the future, we'll be able to handle it as a couple. It gave us perseverance that we wouldn't back out, back down from what we wanted, what we needed to do in life. I mean the back pain gave us the strength to take on the next thing. I've seen many cases of marriages where someone gets really sick and the other partner can't handle it and walks away from the marriage.

Julie shared a similar thought:

The back pain, if anything, I feel made us stronger because any relationship, any marriage, you just go through stuff and it's something we've gone through together. And I definitely feel like we've gone through it, for the most part, together.

Furthermore, several participants felt their ability to overcome the challenges associated with CBP as a couple validated their choice for a partner, as was stated by Ashley:

I think who you are partnered with is a big, big impact on how well you're going to maintain your relationship in a chronic pain situation. You know, whether you'll ever

feel like you're healed again. I mean, I can imagine a lot of other spouses not being so supportive, you know?

By encountering the challenges of chronic back pain, participants discovered their resilience as a couple. Adapting to the physical limitations and psychological distress of CBP, patients and partners reported they discovered strengths of their relationship they felt otherwise would have gone unknown. Not every couple reported full acceptance of the pain at the time of the interview; however, all participants acknowledged the emotional benefit of establishing a 'new normal'.

Discussion

Despite the adversities provoked by chronic back pain, the couples in this study discovered resources within their relationship that allowed them to grow from their experience. In contrast to existing research indicating CBP couples report decreased marital satisfaction and increased conflict (Flor et al., 1987; Geisser et al., 2005; Romano, Turner, & Jensen, 1997; Seers & Friedli, 1996), participants in this study reported high levels of marital satisfaction. Through the process of adapting their lives to the changes caused by CBP, participants embraced the opportunities for growth within their relationship that emerged. Results of this study suggest the discovery and utilization of internal resources influences how couples experience CBP.

Interlaced through every interview was the importance of maintaining a positive attitude. Couples believed the outlook they chose directly impacted their happiness as well as their ability to adapt to pain-related changes. The findings suggest when participants focused on the positive aspects of their relationship, rather than those compromised by CBP, their relationship was more balanced and less focused on CBP. Moreover, partners recognized that managing negative thoughts minimized the risk for resentment and conflict. This is consistent with previous

research that indicates chronic pain patients who effectively regulate their emotions experience a better quality of life (Agar-Wilson & Jackson, 2012).

Hope emerged as an important resource in tolerating the ambiguous nature of CBP. While couples reported fluctuating between hope and despair, most felt holding hope for progress improved their ability to tolerate the current limitations of their pain, which improved their outlook on their relationship. As previously reported by Seers & Friedli (1996), the patient's level of hope was often relative to the confidence they held in their physician's ability to improve their condition, as well as the degree to which they felt their physician believed their pain. Some couples felt holding hope for a cure limited their willingness to accept the presence of CBP in their relationship and created opportunities for disappointment and hopelessness when the pain persisted. Further research is needed to better understand how hope impacts the process of acceptance for CBP couples. When viewed systemically through a medical family therapy lens, these findings strongly suggest the patient's physician is a member of the couple's social system and will influence the couple's CBP experience (McDaniel, Hepworth, & Doherty, 1992). Further research is warranted to better understand how patients and their partners derive hope from their physicians,

Most participants experienced periods of frustration and depression due to the physical and psychological challenges of CBP, which impaired their ability to accept the pain-related changes in their relationship. However, all couples reported using a form of perspective-taking, the cognitive ability to understand another's point of view (Issner, Cano, Leonard, & Williams, 2012) to restore a healthy attitude. By viewing their individual experience from the perspective of friends or family who have endured more severe circumstances, couples found their

perception of their losses lessened and improved their willingness to accept their own pain-related challenges.

Chronic back pain is rarely cured; however, patients frequently experience periods of remission (Beck & Clapp, 2011). Its recurrent and sometimes unpredictable manner presented unique challenges as couples attempted to respond and adjust to the effects on their relationship. Couples in this study found adapting their expectations to the limitations of CBP improved their ability to accept the pain-related changes. These findings suggest that defining a 'new normal' is a critical phase of acceptance, and decreasing the couple's focus on things they can not do by emphasizing the things they can do, may decrease their feelings of loss.

The current study's findings suggest that maintaining respectful boundaries contributed to how well couples adapted to CBP in their relationship. Most common in this sample was the patient's need to preserve their independence in spite of the limits placed on their ability to perform simple tasks. Consistent with past work (Newton-John & Williams, 2006), patients often rejected their partner's verbal and physical gestures of support, perceiving them as unhelpful. As a result, partners learned to respect the patient's boundary by suppressing their desire to intervene. Interestingly, one couple encountered the opposite experience where the partner was overwhelmed by the emotional and physical needs of the patient. Consistent with research that identified a positive association between marital conflict and patient disability and emotional distress (Romano, Turner & Jensen, 1997), the lack of physical and emotional boundaries allowed the patient's pain to consume the partner's life, leading to resentment and frustration. The couple found that defining clear boundaries around the partner's accessibility, personal space and sleep restored the balance in their relationship. These findings suggest couples who define boundaries to preserve both partners' independence are more likely to adapt

to CBP and accept the pain-related changes in the relationship. Further research in this area is warranted.

The couples in this study demonstrate resiliency in their ability to sustain their relationships through the painful limitations and changes caused by CBP. Consistent with current research (Seery, 2011) indicating exposure to adversity is associated with better mental health and less distress in difficult times, couples reported an improved ability to tolerate the pain and pain-related changes over time. Conducting a longitudinal study to assess resiliency of CBP couples over time would provide insight into the factors most influential in building resiliency.

Unique to this study was the ability to capture the couple's joint perspective by interviewing partners together. This design allowed couples to discuss their perceptions, often providing a richer, more detailed response, encompassing both partners' beliefs. Although not assessed in this study, the researcher observed non-verbal interactions between partners during the interviews and found the couples in this study to be supportive and respectful, and infrequently disagreed with their partner's response. Further research is warranted to discern the influence of interviewing couples conjointly on their verbal and non-verbal responses.

Couples in this study report high levels of marital satisfaction and most have accepted the presence of chronic back pain in their relationship. It is possible the voluntary nature of participant recruitment contributed to the sample population. Nonetheless, the current findings lend support to research indicating within-couple congruent perceptions of patient pain are associated with higher levels of marital adjustment (Geisser et al., 2005; Newton-John & Williams, 2006). However, additional research is needed to explore the influence of within-couple congruent perceptions of pain on the couple's ability to accept the presence of CBP in the relationship and to adjust to the pain-related changes.

Feinauer and Steele (1992) found partners who gain fulfillment and gratification from assuming the caretaker role remain in chronic pain relationships longer. While the average length of marriage in this sample was 31 years, further research gains are needed to explore the partner's experience as caregiver and its influence on the couple's adjustment to CBP-related changes.

Most couples reported the onset of CBP coincided with other significant life events, such as child rearing, which impeded their ability to definitively attribute the changes in their relationship to CBP. Moreover, three couples had difficulty discerning if the aging process was an equal contributor to the patient's declining physical condition. More research is needed to differentiate between CBP- specific changes in the couple's relationship and those influenced by the couple's place in the cycle of life.

The present study illustrates challenges couples can encounter when faced with chronic back pain. Consistent with McDaniel, Hepworth and Doherty (1992), couples identified new ways to cope, defined new roles and endured prolonged periods of adaptation. These findings suggest couples can benefit from the comprehensive care provided by the medical family therapy model, an application of systems theory. By incorporating the patient's medical team as a member of the couple's system, medical family therapists can help couples tolerate the complexities of chronic illness while processing the impact on their relationship in a manner that moves them toward acceptance. Further research in this area is warranted.

Limitations

Several limitations to the current study must be noted. The study sample of eight couples was modest in size and lacked diversity, with all participants being heterosexual Caucasian couples who reside in the Virginia suburbs of Washington, DC. Additionally, mean pain

duration was 13.87 years, which may suggest that results of this study do not represent the experiences of couples newly diagnosed with CBP. Similarly, the average length of marriage was 31.25 years, possibly suggesting that experiences of unmarried or newly married couples may differ from the study's findings.

It is also important to note that the researcher has a professional affiliation with physicians who treat chronic back pain, in particular those who assisted in the recruitment process. Neither the researcher nor physicians experienced financial or professional gain from their collaboration in this process; however it may have contributed to the distinctness of the sample population.

Future Research and Clinical Indications

This qualitative study provides a broad understanding of how couples perceive the impact of chronic back pain on their relationship; however, continued research is warranted to further understand the relational implications for patients with chronic back pain.

Future research should expand the sample population to include mal-adapted couples as well as couples in newer relationships to gain a richer understanding of relationship factors that contribute to how couples adapt to pain-related change. Without the perspective of these couples, researchers can only speculate about the relationship factors that contribute to mal-adapted responses to CBP.

It would be beneficial to conduct a longitudinal study to gain insight into the impact of chronic back pain on the relationship over time. Qualitative and quantitative methods should be used together to explore the correlation between the patient's clinical status, pain-related changes in the relationship and relationship factors found to influence how couples make meaning of pain-related changes. Researchers could examine the outcomes for couples more and less able to

adapt to the role of pain in their relationship and also draw more thorough conclusions regarding the influence of enduring pain over long periods of time. Results would provide clinicians with insight into identifying couples at risk for a mal-adaptive response to CBP and allow them to design interventions to facilitate acceptance within the relationship.

Additionally, while the field of medical family therapy is relatively new, incorporating its principles into future research will provide insight into the complexities of chronic illness that impact the CBP patient's social system. Data can be collected to understand the impact of CBP on each member of the system and how the system responds as a whole. Collaborating with the medical community will provide essential insight into patients' diagnoses and treatment experiences.

The themes identified in this study have important clinical implications for family therapists. First and foremost, this study illustrates the need for clinicians to understand the relational implications of CBP, and to assess for pain-related relationship stressors when working with individuals and couples. The invisible nature of CBP, however, leaves clinicians vulnerable to overlooking these factors when clients neglect to disclose the presence of CBP. Additionally, clients may not associate their therapeutic issue with the patient's CBP and may be less inclined to divulge pain-related information in session unless directly asked. Therefore, clinicians should proactively explore the physical health of the client and their partner, and discuss all medical symptoms, diagnoses and treatments. Thoroughly assessing the client's medical status, in conjunction with their background and family history, will ensure clinicians have a more complete perspective of the possible factors contributing to the clients' distress, and will further inform their goal-setting process.

Additionally, the findings of this study can inform the clinician's assessment of the couples' level of acceptance of changes in their relationship caused by CBP, and help them identify factors contributing to distress or maladaptation. In the current study, relationship factors such as well-defined boundaries and a positive attitude were found to contribute to acceptance of CBP in the relationship. Therefore, clinicians should explore the role of boundaries within the relationship and assist couples in determining their efficacy in promoting acceptance. Clinicians may need to educate couples on the value of well-defined boundaries in preserving their relationship and should help couples identify their own appropriate boundaries. Furthermore, clinicians should continue to work with both partners as they learn to enforce and respect the new boundaries, ensuring the resulting relationship changes support acceptance of CBP. Also, the previously stated association between positive attitude and acceptance illustrates the importance for clinicians to explore each partners' perspective and to help facilitate the client's understanding of their current outlook and its impact on the acceptance process. Clinicians should consider the thoughts and beliefs that contribute to the clients' attitudes. Thoughts and beliefs found to negatively impact their outlook should be processed and re-defined to facilitate an attitude that fosters acceptance of CBP.

The current study found that defining a new normal by creating space for CBP in the relationship and adjusting to its limitations are steps necessary for couples as they work toward accepting the pain-related changes in the relationship. Therefore, to assist clients with the process of acceptance, clinicians should help them adjust their lives and expectations to the limitations of CBP and help them focus on the unchanged aspects of their relationship, rather than those altered by the pain. This process involves both emotional and physical aspects of CBP; therefore, it is important clinicians assess the couples' understanding of the psychological

implications of CBP for patients, partners and relationships. When necessary, clinicians should provide psychoeducation on these implications to facilitate the client's expanded understanding of the impact of CBP and to create opportunities for clients to assign new meaning to the pain in their relationship.

Chronic back pain couples frequently experience decreased sexual intimacy due to the physical limitations and psychological challenges associated with the enduring nature of CBP. Although this often negatively impacts relationship satisfaction, the findings of this study illustrate that couples can grow closer emotionally when their ability to connect physically is compromised. Therefore, clinicians should process the meaning clients assign to these changes and help them discover opportunities to connect on an emotionally intimate level in spite of the presence of CBP. Helping partners cultivate a stronger friendship within the relationship will promote growth and preservation of their connection while adjusting to CBP.

Finally, this study provides clinicians unfamiliar with medical family therapy with a brief look into the importance of viewing clients with health issues from a biopsychosocial perspective. This study illustrates the influence of the patient's hope in their physician on their ability to accept the pain-related changes in their relationship. Therefore, to gain a more complete picture of the couple's experience, clinicians should include the client's medical team when exploring the couple's system. Without doing so, clinicians are unable to fully understand the factors influencing the couple's system and therefore unable to provide the best care for their client. When possible, clinicians should cultivate a relationship with their client's physicians in order to aid clients in minimizing the negative impact on hope when physicians provide treatment options or prognostic information perceived as unfavorable by clients and their partners. Furthermore, these findings support the patient's tendency to underestimate the pain

and physical limitations caused by their CBP. Therefore, to provide the most effective level of care for their clients, clinicians should maintain communication with their client's physicians and ensure their support is consistent with the client's actual diagnosis.

Conclusion

Although the 'Decade of Pain Control and Research' has concluded, the concern for chronic back pain in the United States continues to grow. When viewed relationally, the number of people impacted by chronic back pain increases exponentially. In this study, eight couples reflected upon the consequences of CBP and the sacrifices they made to adapt to its' challenging presence. Their stories represent a small sample of couples that have encountered this life-changing diagnosis. Although some people may wonder how CBP couples survive its impact, these participants provide valuable insight into couples who have coped well and have continued in fulfilling relationships. Their experiences lend hope for present and future chronic back pain couples.

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Appendix A Informational Flyer

Laura Cross

*Master's Student
Virginia Polytechnic Institute and State
University*



Back pain is a family affair.....

Did you know that approximately 75% of adults experience chronic back pain at some point in their life? Many people say the pain impacts other areas of their life too, especially their relationships with the people they care about.

I am conducting a research study to learn more about the unique experiences of couples who endure chronic back pain and the ways it affects your relationship. Your physician has identified you as a patient who might consider participating in this study to offer insight into how living with this condition has impacted your life. By sharing your story, you will provide the clinical community with a valuable perspective on the impact of chronic back pain on patients and their relationships.

Should you choose to participate in my study, our confidential interview will use a simple question and answer format to allow you and your significant other to share your experience using your words to convey your message. You tell me what we need to know in order to better understand what it is like to be a couple experiencing chronic back pain.

Would you like to participate? Would you like more information before you decide?

Please contact me directly, or simply sign your physician's release of information form and the office will then provide me with your contact information.

I sincerely thank you for your consideration and I hope you will participate in my study. Together we can contribute information towards the ongoing effort to improve care for the mind and body of chronic back pain patients.

Who am I? Laura Cross - Master's student at Virginia Tech's Marriage and Family Therapy Program
Cell: 571-305-3260
Email: LCross24@vt.edu

What: A confidential 90-minute interview with you, your significant other and me.

When & Where? During our initial phone call we will select a time and a location convenient for you and your significant other, or we can schedule a telephone interview.

Appendix B

Pre-Interview Telephone Script

The following script was used when calling interested participants who were informed of the study during an office visit and signed the office's release of information form.

Hello. My name is Laura Cross and I am a graduate student in the Marriage and Family Therapy program at Virginia Polytechnic Institute and State University. During a recent visit with your physician, you expressed interest in participating in my research study, which is designed to understand how couples are impacted by chronic back pain. My study focuses specifically on understanding the changes that take place in the relationship due to the pain. Therefore, it would be important that your relationship pre-dates the onset of the chronic back pain diagnosis, that you have been cohabitating for at least one year and that you feel the chronic back pain has impacted your relationship in some way. Is this true for your relationship? If you agree to participate, I will interview you and your partner together for approximately 90 minutes about your chronic back pain experience and how your relationship has changed. All of this information will be kept confidential. Are you interested in participating in this study? When would be a convenient time to conduct the interview? Where would be a convenient place to meet? If you have any questions, please do not hesitate to contact me. I can be reached at 571-305-3260 or LCross24@vt.edu. Thank you for agreeing to participate in this study.

The following script will be used when returning calls from interested participants who received the flyer in the mail from their physician.

Hello. My name is Laura Cross and I am a graduate student in the Marriage and Family Therapy program at Virginia Polytechnic Institute and State University. Thank you for responding to the flyer you received from your physician regarding my research study, which is

designed to understand how living with chronic back pain impacts couples. My study focuses specifically on understanding the changes that take place in the relationship due to the pain. Therefore, it would be important that your relationship pre-dates the onset of the chronic back pain diagnosis, that you have been cohabitating for at least one year and that you feel the chronic back pain has impacted your relationship in some way. Is this true for your relationship? If you agree to participate, I will interview you and your partner together for approximately 90 minutes about your chronic back pain experience and how your relationship has changed. All of this information will be kept confidential. Are you interested in participating in this study? When would be a convenient time to conduct the interview? Where would be a convenient place to meet? If you have any questions, please do not hesitate to contact me. I can be reached at 571-305-3260 or LCross24@vt.edu. Thank you for agreeing to participate in this study.

Appendix C

Informed Consent

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Informed Consent for Participants in Research Projects Involving Human Subjects

Title: Understanding Couples' Perceptions of the Impact of Chronic Back Pain on Their Relationship

Principal Investigator: Dr. Eric McCollum

Co-Investigator and Interviewer: Laura Cross

I. Purpose of the Research

While there is an existing body of literature regarding the physical and psychological impact of chronic back pain on patients and their partners, the majority of studies have been quantitative and have focused on the individual perceptions of each partner. Few relational studies exist exploring how couples jointly experience the impact of chronic back pain on their relationship. This study, therefore, seeks to fill the gap in the literature by understanding couples' perceptions of how chronic back pain has impacted their relationship using qualitative phenomenological methodology. It is the hope of the researcher that the findings of the couples' perceptions of how chronic back pain has affected their relationship will enhance the clinical practice of psychotherapists and positively impact client care. In addition, the researcher seeks to add to the growing body of literature in the medical profession regarding the psychological needs of chronic back pain patients and their family system.

II. Procedures

As a participant in this study, you will be asked to fill out a brief demographic questionnaire and you agree to participate in an audio-recorded interview about the impact of chronic back pain on your relationship. You can expect the interview to last approximately 90 minutes. The interview will take place face-to-face or over the phone.

III. Risks

There are only minimal risks to participants of this study. The interview does focus on relational and medical issues. If you find that you would like to explore these issues further, you may be referred to the American Association of Marriage and Family Therapists (AAMFT) website for a list of therapists in your area. In addition, the researcher has referral information for mental health resources should you wish to further process any difficult thoughts or emotions evoked during the interview process. Payments associated with counseling referrals will be the responsibility of the subject, not the research team or Virginia Tech.

IV. Benefits

It may be considered a benefit to discuss your experiences as a way to enhance your thoughts and experiences around the subject matter. In addition, you will assist with adding to the body of research regarding how couples perceive the impact of chronic back pain on their relationship.

V. Anonymity and Confidentiality

All of the information provided during the interview and over-the-phone or email is confidential. All identifying information will be removed and replaced before the transcription process begins. All identifying information provided during the audio-recorded interview will be removed and replaced with aliases in the typed transcript and study report. The only individuals with access to the audio recording and original audio transcript will be the Principal Investigator, Co-

Investigator, and the individual transcribing the interviews. Portions of your interview text may be used verbatim in the report of the project and/or in the subsequent publications. Portions of the audio file may be used verbatim in academic and professional presentations. The audio file will be destroyed after thesis approval with the exception of audio clips selected for use in academic and professional presentations. The expected thesis completion date is May 2012. You should be aware that the researcher has a duty to report a suspicion of abuse of a child or vulnerable adult, or potential harm to yourself or someone else.

VI. Compensation

There is no compensation for taking part in this study other than our gratitude and appreciation for your time in participating.

VII. Freedom to Withdraw

You have the right to refuse to answer any question at any time. You have the right to withdraw from this study at any time without penalty.

VIII. Participant Responsibilities and Permission

I voluntarily agree to participate in this study. In agreeing to participate, I understand that I have the following responsibilities: to discuss, to the best of my ability, my experiences of how chronic back pain has affected my relationship.

I have read and understand the Informed Consent, which states the conditions of this project. Any questions I have prior to beginning my participation in this study have been answered. I hereby acknowledge the above and give my voluntary consent for participation in this project.

Participant Signature

Date

Participant Signature

Date

If you have any questions about this research in any capacity, research subjects' rights, and/or whom to contact in the event of a research-related injury, you may contact:

Dr. Eric McCollum
Principal Investigator
Telephone: (703) 538-8460
Email: EricMcCollum@vt.edu

David M. Moore
Chair, Virginia Tech Institutional Review
Board for the Protection of Human Subjects
Office of Research Compliance
2000 Kraft Drive, Suite 2000 (0497)
Blacksburg, VA 24060
Telephone: (540) 231-4991
Email: moored@vt.edu

Appendix D

Demographic Questionnaire

Interview Date:

Interview Time:

Interview Location:

Please complete the following questions:

2. Age: _____

3. Gender: _____

4. How long have you cohabitated with your partner? _____

5. How long ago was the patient diagnosed with chronic back pain? _____

6. Rate pain intensity using a scale of 0 – 10. 0 = no pain, 10 = completely incapacitating

Patients: please rate your pain intensity _____

Significant others: please rate your estimation of the patient's pain intensity: _____

Participant Pseudonym: _____

Appendix E

Interview Script

1. Please describe how your relationship has changed over time as a result of the onset of the chronic back pain.
 - a. Which aspects of your relationship have changed the most?
2. Some spouses find it difficult to fully appreciate the intensity of their partner's pain and the extent of the physical limitations associated with it. Some couples say they have different opinions of these factors. What has been your experience in this area?
3. When the pain causes conflict in your relationship, or is the source of it, how do you handle it?
4. What, if anything, has helped you adapt to the presence of chronic pain in your relationship, or to the changes in your relationship caused by the pain?
5. How, if at all, has the chronic back pain had a positive impact on your relationship?
6. Have these pain---related changes affected how you view your future as a couple?
 - If so, how?
7. Has the pain impacted your relationship in any way that we have not discussed here? If so, please share your experience.

Appendix F IRB Approval Letter



Office of Research Compliance
Institutional Review Board
2000 Kraft Drive, Suite 2000 (0497)
Blacksburg, Virginia 24060
540/231-4606 Fax 540/231-0959
e-mail irb@vt.edu
Website: www.irb.vt.edu

MEMORANDUM

DATE: January 12, 2012

TO: Eric E. McCollum, Laura Cross

FROM: Virginia Tech Institutional Review Board (FWA00000572, expires May 31, 2014)

PROTOCOL TITLE: Understanding Couples' Perceptions of the Impact of Chronic Back Pain on Their Relationship

IRB NUMBER: 11-1093

Effective January 12, 2012, the Virginia Tech IRB Chair, Dr. David M. Moore, approved the new protocol for the above-mentioned research protocol.

This approval provides permission to begin the human subject activities outlined in the IRB-approved protocol and supporting documents.

Plans to deviate from the approved protocol and/or supporting documents must be submitted to the IRB as an amendment request and approved by the IRB prior to the implementation of any changes, regardless of how minor, except where necessary to eliminate apparent immediate hazards to the subjects. Report promptly to the IRB any injuries or other unanticipated or adverse events involving risks or harms to human research subjects or others.

All investigators (listed above) are required to comply with the researcher requirements outlined at <http://www.irb.vt.edu/pages/responsibilities.htm> (please review before the commencement of your research).

PROTOCOL INFORMATION:

Approved as: **Expedited, under 45 CFR 46.110 category(ies) 6, 7**

Protocol Approval Date: **1/12/2012**

Protocol Expiration Date: **1/11/2013**

Continuing Review Due Date*: **12/28/2012**

*Date a Continuing Review application is due to the IRB office if human subject activities covered under this protocol, including data analysis, are to continue beyond the Protocol Expiration Date.

FEDERALLY FUNDED RESEARCH REQUIREMENTS:

Per federal regulations, 45 CFR 46.103(f), the IRB is required to compare all federally funded grant proposals / work statements to the IRB protocol(s) which cover the human research activities included in the proposal / work statement before funds are released. Note that this requirement does not apply to Exempt and Interim IRB protocols, or grants for which VT is not the primary awardee.

The table on the following page indicates whether grant proposals are related to this IRB protocol, and which of the listed proposals, if any, have been compared to this IRB protocol, if required.

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