

5-1-2005

Perceptions of Selected Job Characteristics of Staff Nurses Diagnosed with Fibromyalgia Syndrome

Eileen Piering

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Staff Nurses with FMS

Perceptions of Selected Job Characteristics of Staff Nurses Diagnosed with Fibromyalgia
Syndrome

By

Eileen Piering

A Master's Thesis Project

Submitted to Cardinal Stritch University College of Nursing

In partial fulfillment of the requirements for the degree

Master of Science in Nursing

Cardinal Stritch University

Milwaukee, Wisconsin

May 2005

CARDINAL STRITCH UNIVERSITY

College of Nursing

**THESIS/PROJECT DEFENSE
COMMITTEE APPROVAL FORM**

Date May 6, 2005

We hereby recommend that the project prepared by Eileen Therese Piering
entitled Perceptions of Selected Job Characteristics of Staff Nurses with Fibromyalgia Syndrome
be accepted as fulfilling this part of the requirements for the Degree of Master of Science in Nursing.

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Table of Contents

	Page
TABLE CONTENTS	1
LIST OF TABLES	3
LIST OF FIGURES	4
ABSTRACT	5
CHAPTER 1: INTRODUCTION TO THE STUDY	6
<i>Statement of the Problem</i>	7
<i>Purpose of the Study</i>	8
<i>Research Question</i>	8
<i>Significance for Nursing</i>	8
<i>Definition of Terms</i>	10
<i>Limitations and Assumptions</i>	11
<i>Summary</i>	12
CHAPTER 2: LITERATURE REVIEW	13
<i>Development of Chronic Illness</i>	13
<i>Onset</i>	14
<i>Accommodating Chronic Illness</i>	15
<i>Social and Financial Implications of Chronic Illness</i>	16
<i>Americans with Disabilities</i>	19
<i>Employers Attitudes</i>	19
<i>Conceptual Framework</i>	19
<i>Common Symptoms of Fibromyalgia</i>	20
<i>Job Demand Control Model</i>	22
<i>Job Content Questionnaire Scales</i>	22
<i>Nursing and the Quality of Worklife</i>	29
<i>Gaps in Literature</i>	30

	Page
<i>Summary</i>	30
CHAPTER 3: METHODOLOGY	33
<i>Design</i>	33
<i>Instrument</i>	33
<i>Sample</i>	34
<i>Protection of the Rights of Human Subjects</i>	35
<i>Data Collection Plan</i>	35
<i>Implementation</i>	39
<i>Summary</i>	40
CHAPTER 4: FINDINGS OF THE STUDY	41
<i>Data Analysis Procedure</i>	42
<i>Sample</i>	44
<i>Summary of Results</i>	63
CHAPTER 5: DISCUSSION	66
<i>Findings</i>	66
<i>Conclusion</i>	68
<i>Implications for Nursing Practice</i>	68
<i>Implications for Nursing Education</i>	69
<i>Recommendations</i>	69
APPENDIX A: CONSENT	70
APPENDIX B: SURVEY	72
APPENDIX C: PARTICIPANT FLYER	80
REFERENCES	81

List of Tables

	Page
Table 1: DESCRIPTIVE STATISTICS OF SUBSCALE SCORES.....	43
Table 2: EDUCATION AND WORKPLACE SETTING.....	45
Table 3: WORK STATUS AND JOB REQUIREMENTS.....	46
Table 4: AGE RANGE.....	47
Table 5: PREDOMINANT SYMPTOM.....	47
Table 6: TIME SINCE DIAGNOSIS.....	48
Table 7: WORK SETTING AND PHYSICAL DEMANDS.....	54
Table 8: WORK SETTING AND JOB CHANGE.....	55
Table 9: WORK SETTING AND REQUIREMENT TO MOVE AND LIFT HEAVY LOADS.....	56
Table 10: WORK SETTING AND RAPID, CONTINUOUS PHYSICAL ACTIVITY..	57
Table 11: WORK SETTING AND REQUESTS FOR EXCESSIVE AMOUNT OF WORK.....	58
Table 12: WORK SETTING AND WAITING ON WORK FROM OTHERS.....	59
Table 13: AGE GROUP AND INDIVIDUAL INFLUENCE OVER WORK GROUP DECISIONS.....	60

List of Figures

	Page
Figure 1: CONCEPTUAL FRAMEWORK.....	28

Abstract

The purpose of this exploratory study was to describe the perceptions of selected job characteristics of staff nurses with fibromyalgia syndrome (FMS). Criteria for inclusion in this study included being a female registered nurse employed in a staff nurse position providing direct patient care, and a diagnosis of FMS from a physician. Nurses were informed of this study through an article and an advertisement placed in *Nursingmatters*, a monthly statewide nursing newspaper delivered to nurses' homes.

Data were collected by posting a survey on the Internet for 8 weeks. The survey contained inclusion criteria and information about the participant's job, age, FMS, and the job content questionnaire, a survey designed to report on 8 dimensions of the workplace. The final question was open-ended, inviting the participant to add comments relevant to the topic. Sixty-five respondents met the inclusion criteria. Data analysis was completed using a computer program, the Statistical Package for the Social Sciences. Both descriptive and chi square statistics were calculated.

Findings of this study include the majority of participants were employed in the hospital; had not changed jobs but had changed the number of hours they worked, were age 50 to 59, and had a baccalaureate degree. The majority also reported being diagnosed with FMS for 5 years or more, and considered pain the predominant symptom of FMS. Chi square findings include strong association between perceptions of working in a hospital setting and high physical demands. The hospital was also strongly associated with requests for excessive amounts of work and an environment where waiting on work from others slows down the nurse. The responses to the open-ended question reported a lack of social support from both coworkers and supervisors, high psychological demands for some, and the physical demands of work were reported in positive and negative terms.

The Perceptions of Selected Job Qualities of Staff Nurses with Fibromyalgia

Introduction

There are a variety of chronic illnesses with unknown origins. While the origins of an illness may be unknown, the mechanism by which they affect the body can usually be seen through medical testing. Fibromyalgia Syndrome (FMS) is a unique example because its origin is not understood, and there are currently no diagnostic tests to confirm its presence. The term syndrome is defined in *The Oxford Dictionary* (2001) as “a condition characterized by a set of associated symptoms”. The American College of Rheumatology (ACR) developed criteria to diagnose FMS (Paget, Gibofsky, & Beary, 2000). The most recent update, released in 1990, includes: “the presence of widespread musculoskeletal pain for at least 3 months in all 4 quadrants of the body, and tenderness in 11 out of 18 specific areas of the body sensitive to pressure known as tender points. Fatigue and sleep disturbances are frequently reported by those diagnosed with FMS” (Paget et al.). While there are many non-specific symptoms associated with FMS, the complaints of fatigue, sleep disturbances, widespread pain with tender points, and memory difficulties are the most common. FMS is a chronic condition with a varied onset; some people report the onset of symptoms as sudden, frequently linking its appearance to an acute illness such as a cold or flu, a trauma such as a car accident, or a stressful life event. Others report an insidious onset of the disease (Barker, 2002).

In the United States today, it is estimated that approximately 2% of the population have FMS, with women comprising 80% to 90% of the total number with a mean age of 45 years (Wallace, Shapiro, & Panush, 1999). The origin of the disease is not known, but currently it is believed to be caused in part by a disturbance in processing pain signals (Paget et al., 2000). Treatment is aimed at easing the symptoms and includes the use of muscle relaxants and low dose antidepressants such as amitriptyline to assist the patient in getting restful sleep. Low impact aerobic exercise has also been found to alleviate some of the symptoms of FMS (Paget et al., 2000).

Statement of the Problem

The problem examined in this study was the perceived quality of worklife experiences of staff nurses with FMS. The topic of work has been included in studies in relation to the changes women go through after developing FMS, but no literature was found that focuses on the quality of worklife experiences of staff nurses with FMS. In the minimal information that has been found in the literature, women with FMS have described their working experiences as monotonous, stressful, and strenuous. The women reported feeling they had little opportunity to influence their work (Hallberg & Carlsson, 1998). Additionally, there were reported accusations of laziness by their coworkers (Asbring & Narvanen, 2002).

Receiving a diagnosis can be seen in terms of validation for the person with an illness (Asbring & Narvanen, 2002; Hellstrom, Bullington, Karlsson, Lindqvist, and Mattson, 1999; Kralik, 2002; Schaefer 1995). Women with FMS have reported referral to psychologists when the health care provider is unable to find an organic cause for their complaints, and a perceived change in the way they are treated by the medical profession has been reported when no verifiable reason for their complaints could be found (Asbring & Narvanen). These findings about the problems women have with health care providers seem to highlight an area where knowledge is limited among health care professionals.

Interest in Topic

This researcher's interest in this topic came about because of the current nursing shortage, the aging of working nurses, and the personal belief that it is important to extend the working life of the nurses that are available. Interest also resulted from the study of research participants' reports and descriptions of the changes developing FMS had brought in all facets of their lives (Asbring & Narvanen, 2002; Hallberg and Carlsson, 1998; Kralik, 2002; Schaefer, 1995). Additionally, the fact that currently there is no concrete diagnostic testing to confirm the presence of FMS appears to have made it a controversial disease (Asbring & Narvanen). Interest in the quality of worklife aspect of this disease arose from reading available research documenting participants' reports about their workplace experiences but no study was found

focusing on the impact of FMS on the worklife of the sufferer. Although there may be laws in place to protect a person with disabilities in the workplace, that protection does not ensure good rapport with coworkers or management.

Statement of the Purpose

The purpose of this study was to investigate how staff nurses with FMS perceive the quality of their workplace experiences. This researcher expected that information would be found about the workplace circumstances in which staff nurses with FMS find themselves, and the relationships they have with their coworkers and management. Studies reveal that people with FMS have difficulty convincing others that they have an illness, a salient point in relation to their working life. Women describe being accused by coworkers of being lazy and report feelings of alienation and a lack of understanding from others (Asbring & Narvanen, 2002; Soderberg & Lundman, 2001). While these studies include statements from participants about what it is like to work with FMS, no studies were found that focus on the quality of worklife experiences of staff nurses with FMS. A lack of research about the employment experiences of people with chronic illness has been identified (Joachim & Acorn, 2000; O'Neill & Morrow, 2001). It is hoped that the outcome of this study will increase the available knowledge about the quality of worklife experiences of staff nurses with FMS.

Research Question

The aim of the study was to describe the perception of the quality of worklife held by staff nurses with FMS. The research question was: How do working staff nurses with FMS perceive selected qualities of their job as measured by the job content questionnaire (JCQ)?

Significance

This topic is significant to the nursing profession because the average age of nurses in 2010 is projected to be 45.4 years and 94.1% of nurses are women (Buerhaus, Staiger, & Auerbach, 2001; US Department of Health and Human Services Bureau of Health Professions Division of Nursing, 2001). Women are the predominant population affected by FMS, and the majority of nurses in 2010 will reach the mean age of onset for FMS (Wallace, Shapiro, &

Panush, 1999) which may have implications for the nurse workforce. The perception of the quality of worklife experiences held by staff nurses with FMS is an area that appears not to have been explored. The findings of this study may be useful to people in management positions due to the direct impact they may have on issues related to the workplace environment. This information might be useful to occupational health nurses who may have interactions with staff nurses with FMS in the workplace. This information may also be applicable to nursing education as a component of learning about chronic illness. If so, it would be in keeping with priorities set by The Center for Disease Control and Prevention (CDC), and the U.S. Department of Health and Human Services who in their report, *Healthy People 2010*, have called for increased education for people on the subject of arthritis and associated rheumatic diseases (Hootman, Sniezek, & Helmick, 2002).

At present, there is a nationwide shortage of nurses. One dimension of the shortage found in literature relates to nurses and job satisfaction. Studies of staff nurses and their work environment have indicated that stress levels of staff nurses increase when they believe patient care is compromised by the conditions of the workplace (Hall, 2004). Staff shortages, inexperienced colleagues, and use of unlicensed assistive personnel have been found to be major stressors for staff nurses (Fletcher, 2001, Hall, 2004). In addition, there are indications in the literature that nurses' job satisfaction is affected by relationships with coworkers and management. "A negative attitude toward coworkers and gossip or criticism from coworkers has been shown to be a source of work dissatisfaction among nurses" (McNeese-Smith, 1999). The work environment can also be affected by the behavior of the employee's immediate supervisor. "A good manager can make a tremendous difference in the stress levels by improving teamwork, morale, job satisfaction, recognition, etc." (Fletcher 2001).

Women in studies about FMS reported a loss of dignity related to the onset of FMS as a result of their treatment by members of the health care profession when no organic cause of symptoms could be found (Schaefer, 1995; Soderberg, Lundman, and Norberg, 1999). The results of this study may assist nurses in their role as patient advocates by raising awareness

about the dilemmas women with FMS face in their work lives. This study may enrich the body of knowledge about the perceptions of the quality of worklife experiences that are held by staff nurses with FMS.

Definition of Terms

For the purpose of this research, the following definitions will be used:

1. Nurse: a graduate of an accredited school of nursing who has been granted a license to practice as a registered nurse (RN) through meeting the requirements of a state board of nursing.
2. Staff nurse: any RN who is employed in a job in which they provide direct patient care as identified by the participant.
3. Staff nurse with FMS: a nurse who has been diagnosed with FMS as indicated on the questionnaire.
4. Workplace: the setting in which one carries out job duties as indicated on the questionnaire.
5. Perception of the quality of worklife is defined as how the respondent answers the items in the JCQ questionnaire that address work.

Data about perceptions of selected job qualities of working staff nurses with FMS was collected using the job content questionnaire, a self-administered 49 item survey. The recommended version of the JCQ includes the 8 scales defined below (*Karasek and Theorell 1990*).

Scales in the JCQ

1. Skill discretion: the ability of the employee to decide what skills to use on the job and the amount of flexibility afforded to the employee in deciding what skills to use.
2. Decision authority: the organizationally determined amount of freedom one has to make decisions on the job.

3. Decision latitude: combines the concepts of skill discretion and decision authority and is defined as the degree of freedom the individual has in making decisions related to his or her job tasks.
4. Macro level decision authority: the impact or influence an individual employee has over decisions made in groups or at higher levels in the organization.
5. Psychological job demands: how hard one works at tasks such as meeting deadlines or quotas.
6. Physical demands: the physical requirements of the job.
7. Job insecurity: the threat or reality of job termination or layoff faced by the employee.
8. Social support: overall levels of helpful social interactions available on the job from both coworkers and supervisors.

Limitations

This study was aimed at women with a specific chronic illness, FMS. By focusing solely on staff nurses, the study limited the generalizability of the results to the nursing profession and further to RNs who provide direct patient care. The number of participants hoped for was 20. Because FMS affects 2% of the population and 80% to 90% of the sufferers are women (Wallace et al., 1999). A total of 20 participants reflect 2% of a population of 1,000 nurses. It was possible that the participants may interpret questions differently than the author intended. Also, the mood of the individual when filling out the questionnaire may affect the answers. This study was also limited to participants who were computer literate and have access to the Internet. This had limitation implications related to the financial status of the participants; only those who owned a computer and had access to the internet were able to respond to the survey. It may have been possible that someone who did not own a computer accessed the survey from work, but said action may conflict with company policy and make participation of these individuals doubtful. The ability of the participants to access the web site may be influenced by the operating system and their Internet service (Duffy 2002).

Assumptions

Assumptions about the study include perceptions that worklife experiences of staff nurses are affected in some way by the development of FMS, and that staff nurses with FMS would be interested in participating in the study. Since FMS predominantly affects women, and the nursing workforce is composed predominantly of women (US Department of Health and Human Services Bureau of Health Professions Division of Nursing, 2001) an assumption has been made that there will be interest in this topic. It was assumed the participants were diagnosed with FMS by a physician using the ACR criteria and will answer the questions honestly.

Summary

Life after the onset of chronic illness is not the same as life prior to the onset of the disease. The impact of a chronic illness is variable; some diseases are more debilitating than others, and some are more intermittent, with symptoms that can remit and flare. Adjustment to chronic illness is an on-going process that depends on the level of expertise acquired by the person with the illness and the level of disease activity present at any given time.

The area of working life has been mentioned in studies of chronic illness, but no literature was found about the impact of FMS on the perceptions of worklife experiences of staff nurses with FMS. Diseases such as FMS can impact the sufferer's ability to work, and for a large proportion of women, working is a necessity. Findings that focus on the perceptions of worklife experiences of staff nurses with FMS may provide information that nurses and nurse managers can use to retain staff and provide care to women with FMS.

Chapter Two: Review of the Literature

Fibromyalgia syndrome (FMS) is a collection of symptoms that, at present, have no detectable organic origin. Common symptoms of FMS include fatigue and soft tissue pain characterized by the presence of tender points (Paget, Gibofsky, & Beary, 2000). The criterion for FMS was established by the American College of Rheumatology (ACR) with the most recent update occurring in 1990 (Paget et al., 2000). In the United States today, it is estimated that approximately 2% of the population have FMS. Women with a mean age of 45 comprise 80% to 90% of the total number of sufferers (Wallace, Shapiro, & Panush, 1999). FMS is a controversial disease because there are no diagnostic tests to confirm its presence, and because many of its sufferers are also diagnosed with depression.

Since FMS is not a visible disease, there is a risk the sufferer will be stigmatized by others. Schaefer (1995) interviewed 36 women with FMS to develop a description of life with FMS. These women reported that convincing others of the presence of the illness was a long process, the participants reported that they “looked better than they felt”, and attributed the invisibility of FMS as a reason for their difficulties. Participants also reported a loss of dignity related to the onset of FMS as a result of the way they have been treated by members of the health care profession when no organic cause of their symptoms can be found, such as referrals to a psychologist. These women also went through stages from FMS being the focus of their lives to a facet of their lives.

Development of Chronic Illness

Bury (1982) interviewed 25 women and 5 men with rheumatoid arthritis before their first appointment at a rheumatology clinic and again after their first 2 visits. His goal was to capture the changes faced by someone at the emergence of a chronic illness. From these interviews, he describes the development of a chronic illness as a biographical disruption. This biographical disruption occurs as a result of something happening that was not anticipated, and must be accommodated; the individual must adjust their self-created biography. According to Bury, there are three stages in the development of a chronic disease. These stages are: onset, which occurs at

the beginning of the symptoms; emerging disability and uncertainty, in which the sufferer is trying to adjust to the changes brought on by the development of the illness; and finally, mobilization of resources, as the person adjusts life roles to accommodate changes in health status brought on by the illness.

The onset of a chronic disease is most often insidious (Bury, 1982) and FMS is no exception. While there are a few people who develop symptoms seemingly overnight, the majority slowly begin to realize something is wrong.

Onset

With the onset of a chronic illness, the person becomes conscious of his or her body in an unfamiliar way with unexplained aches and pains or the onset of fatigue. For most people, the onset is so slow that initially they relate the symptoms to an external cause, a forgotten trauma to a joint, or not getting enough sleep (Bury, 1982). During this phase, women with FMS report “noticing something was wrong” (Schaefer, 1995). The search for a diagnosis often leads the individual to more than one health care provider (Bury, 1982). Interviews with these women illustrate the changes they are faced with as the illness evolves. A loss of freedom related to the onset of FMS has been described by Soderberg, Lundman, and Norberg (1999), who interviewed 14 women with FMS about the meaning of living with FMS. The areas impacted by the loss of freedom included living with pain and fatigue, a change in everyday life, and economic restrictions brought on by the presence of the illness (Soderberg, Lundman, and Norberg 1999). Asbring and Narvanen (2002) conducted interviews of 25 women with chronic fatigue syndrome and FMS. The initial tasks the women faced were fearing the worst and convincing others of the illness. The interviews revealed that these women experienced stigma most commonly before they received a diagnosis. The women reported a stage of self-doubt when no concrete findings of the disease could be found in a medical work-up and reported referral to psychologists when no organic cause for their complaints could be found.

Accommodating Chronic Illness

The accommodation of a chronic illness involves searching for a diagnosis and for “confirmation as an ill person” and looking for explanations that give a person’s situation meaning (Bury 1982). Hellstrom, Bullington, Karlsson, Lindqvist, and Mattson (1999) interviewed 9 women and 1 man with FMS about their understanding of the meaning of their illness. These participants were seen as being “intensively involved in efforts to get their self-images as ill persons confirmed.” This confirmation was a way for these participants to manage the demands they placed on themselves. Some saw the development of FMS as having a positive effect on their life, allowing them to slow down. Others were disappointed by the need to incorporate FMS into their lives, no longer being able to meet the demands of life they had once met.

Ohman, Soderberg, and Lundman (2003) interviewed 5 women and 5 men living with various serious chronic illnesses. The aim of the study was to explain the meaning of the lived experience of chronic illness. Three major themes emerged: the body as hindrance, being alone in illness, and the struggle for normalcy. The body as hindrance included loss of freedom and feelings of pain. Being alone in illness included reports of feeling like an outsider and feelings of being different than others. The struggle for normalcy included trying to understand one’s changed life and why one became ill as part of the adjustment to chronic illness. “These questions seemed to underlie the acceptance of the changes associated with the illness” (Ohman et al.).

A period of extraordinariness is described by individuals when first facing chronic illness, according to Kralik (2002). The study involved 81 midlife women with adult onset chronic illness. Initially, feelings of extraordinariness were described by participants related to the onset of the illness. Their lives were suddenly changed because of the development of the disease and its impact on their lives. The return to ordinariness was described as restructuring life within the context of accommodation of the illness. As they accommodated the changes related to the

demands of the illness, “The importance of the routines of living comes into play with these subjects” (Kralik).

Transitions experienced by women with FMS were studied by Soderberg and Lundman (2001). Twenty-five women with FMS were interviewed about living with the illness. The theme that emerged from the study was “FM as the choreographer of activity and relationship to others.” FMS is portrayed as leading a sufferer to make changes in all aspects of life. Many sufferers reported difficulty in planning anything because of the unpredictable nature of their symptoms. Life with FMS is described by the sufferers as more passive than prior to its development. This passivity leads to frustration in these women, especially when family members had difficulty understanding the effect FMS was having on the sufferers. People with FMS reported that they were “undergoing these transitions in life as a result of the illness but were seen as healthy by other people” (Soderberg & Lundman).

Charmaz (2002) interviewed 140 people with chronic illness to assess how their self-image had been impacted by chronic illness. Participants resisted accepting a new self-image that incorporated a chronic illness until all other reasons for the changes they experienced had been exhausted. They also needed to “learn over and over in their daily lives that they had changed.” This lack of acceptance of a self-image that incorporates chronic illness can have consequences related to compliance with prescribed treatments. Additionally, since the trajectories of many chronic illnesses include variable levels of disease activity Charmaz states, “The adaptation to chronic illness is not a one-time event. As people become accustomed to the changes and degree of illness activity fluctuates, the degree of adaptation required will vary.”

Social and Financial Implications of Chronic Illness

The dimension of social support and the financial implications of the development of a chronic illness also impact the life of a person with a chronic illness. During this stage, referred to by Bury as mobilization of resources, the person assesses and changes activities in his or her life to further accommodate life with a chronic illness (Bury, 1982). The social dimension of this stage involves the potential disruption of previous social ties as a consequence of the symptoms

experienced by the person suffering from the disease (Bury). Fatigue and pain can cause conflict between what a person wants to do and is physically able to do. The maintenance of activities engaged in prior to the onset of the illness can be overwhelming and unrealistic. Validation by others is an important part of living with chronic illness; it is a dehumanizing experience to be marginalized because people do not believe the person has an illness (Soderberg & Lundman, 2001).

The meaning of fatigue and tiredness in women with FMS and in healthy women was studied by Soderberg, Lundman, and Norberg (2002). Fifty women participated in their study; 25 healthy women without FMS and 25 women diagnosed with FMS using the ACR criteria. The women with FMS described fatigue as affecting their relationships with others and their ability to work. They also described fatigue as a constant presence. The healthy women described fatigue as tiredness, something that was temporary and would be relieved by getting some rest (Soderberg et al.). This illustrates the differences between women with FMS and healthy women without FMS in relation to one dimension of life with chronic illness.

One of the areas where mobilization of resources becomes crucial is in the area of employment. The importance of the ability of someone to gain support in the workplace cannot be over-emphasized. The willingness of coworkers to assist the individual with the chronic disease may be pivotal in their ability to remain employed. The degree of flexibility at the place of employment is a key factor in the ability to maintain a job (Bury, 1982). The impact of maintaining a job was discussed by Mannerkorpi, Kroksmark, and Ekdahl (1999), who interviewed 11 women with FMS. These women were interviewed twice with 4 to 6 months between the first and second interview. The aim of these interviews was to explore how these women experience the symptoms of FMS in their daily lives. These participants were willing to use all available energy on work and perceived their working life as stimulating. They also viewed working as important to their self-esteem, to work "as healthy people do (Mannerkorpi et al.).

The importance of continuing to work is also identified by Asbring (2001). The study was conducted on 13 women with FMS and 12 women with chronic fatigue syndrome. All participants had been diagnosed by the ACR criteria. These women emphasized the importance of remaining employed. These women view daily contact with people at work as important in their lives. Some participants were unable to work at times and felt isolated as a result. These participants described the importance of remaining employed even if their work left little energy for social activities (Asbring).

A study of work barriers and job accommodations of 121 people with arthritis and other rheumatic diseases was done by Allaire and LaValley (2003). Work barriers were assessed through the use of the Work Experience Survey. Ninety-eight percent of participants experienced 1 barrier and 68% experienced 10 or more barriers to work. Thirty-eight percent of participants had received accommodation. The request for accommodation was associated with functional limitation at work. For those participants who wanted to remain employed, some of the barriers identified were working for 8 hours, prolonged sitting, and task-related repetitive work (Allaire & LaValley, 2003).

In their study of transitions experienced by women with FMS, Soderberg and Lundman (2001) report the transitions in working life for the participants. The participants described the impact FMS had on their work as a change to a lower occupation level or work stoppage and that they “experienced a lack of understanding and a feeling of alienation” (Soderberg & Lundman, 2001). Schaefer (1995) studied 36 women with FMS; one participant stated:

“The most difficult thing for me was how I was treated by the people at work. They were not listening to what the doctor was saying about my ability to work and they just kept saying they would not have a job for me” (Schaefer, 1995 p. 99).

Americans with Disabilities

Enacted to protect people with physical disabilities from discriminatory hiring practices, the Americans with Disabilities Act (ADA) was passed by the United States Congress in 1990. Under the ADA, the disabled applicant must be given the same consideration in hiring if they are able to fulfill the essential functions of a specific job with or without reasonable accommodation (Essex, 2002).

The ADA allows the employer to determine what a reasonable accommodation is. Making existing facilities readily accessible to people with disabilities, job restructuring through modification of work schedules, and reassignment to vacant positions are examples of reasonable accommodations under the ADA (Equal Employment Opportunity Commission, 1990). The employer is also able to determine essential job functions of a specific position, and the ADA considers a written job description to be evidence of essential job functions (Equal Employment Opportunity Commission, 1990).

Employers Attitudes toward Disabled Workers

Hernandez and Keys (2000) reviewed literature published between 1987 and 1999 that focused on the current state of employer attitudes, persistence of major trends of employer attitudes, and studies assessing employer attitudes toward ADA employment provisions. Conclusions of this review include employers' verbal support of the ADA; however, this support is not evident in hiring practices.

Conceptual Framework

Symptoms of FMS that may Influence Work life

While the predominant symptoms of FMS can vary in sufferers, pain is the diagnostic symptom and fatigue is described as the most obtrusive symptom. The symptoms of FMS also impact one another. For example, disrupted sleep can increase pain and fatigue while pain can disrupt sleep. Pain can also cause depression, and depression can impact the level of pain one feels. The list of symptoms below consists of the most common complaints of FMS sufferers.

Pain

The ACR criterion for diagnosing FMS consists of 1 sign and 1 symptom. The symptom is musculoskeletal pain and the sign is generalized allodynia/hyperalgesia. Allodynia is defined as the sensation of pain from a stimulus that is not normally painful. Hyperalgesia is increased intensity and prolonged duration of pain caused by noxious stimuli. The cause of allodynia and hyperalgesia may be an imbalance in the processing of pain signals in the central nervous system (CNS). There may be insufficient inhibition of pain in the CNS, or an increase in the level of substance P in the CNS which can increase the sensation of pain (Henriksson, 2003).

Pain of varying intensity is the universal feature of FMS. Research of an online support group for rural women with FMS found that pain was the most discussed topic by the participants. Over the 5-month period that the online support group was available, these women described pain as “gnawing, burning, stabbing, and radiating (Cudney, Butler, Weinert, & Sullivan, 2002). Hallberg and Carlsson (1998) interviewed 22 women with FMS about their experiences and beliefs about the origin of pain and how it affects family and social life. Participants who had social problems with feelings of helplessness and hopelessness are overrepresented in people with chronic pain.

Fatigue

Fatigue is often described as the most debilitating and difficult symptom of FMS (Cudney et al., 2002; Soderberg, Lundman, and Norberg, 1999). Women with FMS have described experiencing fatigue as decreased muscle endurance or feeling totally drained of energy. FMS sufferers report handling fatigue by making changes in their lifestyles, such as decreasing or stopping social activities to save energy for their jobs (Soderberg & Lundman, 2001).

The meaning of fatigue and tiredness in women with FMS and in healthy women was studied by Soderberg, Lundman, and Norberg (2002). Fifty women participated in their study; 25 healthy women without FMS and 25 women diagnosed with FMS using the ACR criteria.

The women with FMS described fatigue as affecting their relationships with others and their ability to work. They also described fatigue as a constant presence (Soderberg et al., 2002). To healthy women, fatigue was equated with tiredness, a condition that would go away after a good night's sleep.

Nonrestorative Sleep

Sleep studies done on FMS patients have reported alpha-delta wave disturbances in non-REM sleep that reflect light, unrefreshing sleep. Nonrestorative sleep is a common complaint of women with FMS. Reports of delayed onset of sleep, frequent awakenings at night, and not feeling rested after a full night's sleep are common in women with FMS (Cudney et al., 2002; Isenberg et al., 2004; Soderberg et al., 2002). The impact of non-restorative sleep for the FMS sufferer is that it increases the symptoms of fatigue and pain. FMS-like symptoms can be induced in healthy sleep study participants by disturbing their normal sleep patterns (Lashley, 2003).

Depression

Studies of FMS sufferers have found depression to be a major theme in living with the disease. This depression relates to loss of independence, relationships, and employment (Kelley & Clifford, 1997). Depression has also been reported as a perceived lack of control of the illness and of life in general. Women with FMS can be in a constant mental struggle to maintain a sense of control as they attempt to deal with FMS (Cudney et al., 2002). Chronic pain, which is the diagnostic symptom of FMS, also leads to depression and having FMS is associated with depression more often than other medical conditions. There is a cycle of pain and depression. Pain can cause depression and depression causes and can intensify pain. Depression can cause the sufferer to be less physically active which can intensify pain (Harvard, 2004).

Relapsing-Remitting Disease Pattern

FMS can be unpredictable and the symptoms tend to remit and flare, sometimes for unknown reasons. This facet of FMS can make it difficult for a sufferer to plan her life, often resulting in withdrawal from social activities (Asbring, 2001). A change in weather, an increase

in stress levels, or the sufferer not getting enough rest have all been cited as causes of increased disease activity (Isenberg et al.).

Cognitive Disturbances

Fibrofog is a popular term that refers to the cognitive disturbances that FMS sufferers report. The main components of fibrofog are memory disturbances and decreased mental clarity. When comparing cognitive difficulties between FMS sufferers and other rheumatic diseases, 82% of the FMS group had cognitive disturbances. The presence of fibrofog has been linked with a higher level of severity of the symptoms of fatigue, pain, and sleep disturbances. (Katz, Heard, Mills, & Leavitt, 2004).

Job Demand-Control Model

Developed in 1979 by Karasek, the job demand-control model (JDC) portrays the relationship between the demands of a job and the employee's amount of control on those demands. Job demands are defined as perceived threats or requirements for action at work, and both are potential sources of psychological and physiological strain (Karasek 1979). The higher the control over the demands, the less psychological strain is present in the employee. High-strain jobs are characterized by a high level of demand on the employee with a low level of control. Low-strain jobs are those that allow the employee control over the job demands or jobs that do not place a lot of external demands on the employee. This model also characterizes jobs as either active or passive. An active job is one in which the employee has the opportunity to learn new skills, decide which skills to use, and to employ creativity in the course of daily work. Nursing is considered an active job in the JDC model. In passive jobs, the employee has little freedom to decide what skills are used to complete the job. An example of a passive job is an assembly line worker. The job content questionnaire (JCQ) is a survey questionnaire that was developed by Karasek to assess the demand and control characteristics of a person's job.

Scales in the job content questionnaire (JCQ)

1. Skill discretion: the ability of the employee to decide what skills to use on the job and the amount of flexibility afforded to the employee in deciding what skills to use.

2. Decision authority: the organizationally determined amount of freedom one has to make decisions on the job.
3. Decision latitude: combines the concepts of skill discretion and decision authority and is defined as the degree of freedom the individual has in making decisions related to his or her job tasks.
4. Macro level decision authority: the amount of impact or influence an individual employee has over decisions made in groups or at higher levels in the organization.
5. Psychological job demands: how hard one works at tasks such as meeting deadlines or quotas.
6. Physical demands: the physical requirements of the job.
7. Job insecurity: the threat or reality of job termination or layoff faced by the employee.
8. Social support: overall levels of helpful social interactions available on the job from both coworkers and supervisors.

Skill Discretion

In the JCQ, skill discretion is defined as the ability of the employee to decide what skills to use on the job and the amount of flexibility afforded to the employee in deciding what skills to use (Karasek et al. 1998). Nursing as a profession offers a wide variety of clinical settings often necessitating specialty specific skills. A nurse working in intensive care may have a different set of skills than a nurse working in hemodialysis or surgery by virtue of the condition and needs of the patient. The skills needed by a staff nurse can frequently vary based on patient condition and the fluctuation of patients on the unit. Over the course of a work shift, several patients may go home and be replaced by patients needing a higher skill level of nursing care. The skill discretion of a nurse is variable, but nurses generally have a wide variety of skills that can be called on at any time during a typical work shift.

Decision Authority

Decision authority is the amount of freedom or autonomy one has to make decisions about job tasks and is determined by organizational culture (Karasek et al. 1998). Organizations

that rely on centralized decision making, with the decisions passed down to the employee, exhibit decreased individual decision authority and autonomy. The relationship between hospital unit culture and nurse's quality of work life was the subject of a 7-hospital nursing survey conducted by Gifford, Zammuto, and Goodman (2002). Staff nurses in labor and delivery were surveyed about the organizational culture and quality of work life. The survey found that in organizations where decisions are made through group processes or decentralized decision making, autonomy is increased through involvement of the employees. Autonomy is a chief variable in organizational commitment. Higher employee-perceived levels of autonomy result in stronger organizational commitment (Gifford et al.).

The association between skill discretion decision authority and burnout was studied by Rafferty, Friend, and Landsbergis (2001). Surveys were conducted of 164 human service workers, such as occupational and physical therapists. Emotional exhaustion (burnout) was strongly associated with high job demands and low skill discretion. Additional findings in the workplace concluded that lower decision authority is associated with being female (Rafferty, Friend, & Landsbergis, 2001).

Decision Latitude

Decision latitude is the amount of freedom one has in making decisions regarding one's work (Karasek & Theorell, 1990). Employee empowerment occurs in an environment that allows an employee input into one's jobs and how those jobs are accomplished. Spence-Laschinger, Finegan, Shamian, and Wilk (2001) surveyed 404 Canadian staff nurses to determine the impact of organizational empowerment on job strain in nurses. The researchers found that empowerment in the workplace is linked to reduced feelings of job strain, increased job satisfaction, and increased organizational commitment with a decrease in turnover rates in nurses (Spence-Laschinger et al., 2001). The decision latitude is the combination of decision authority and skill discretion scales.

Psychological Job Demands

The JDC model divides jobs into 2 categories: high-strain jobs and low-strain jobs. Job strain is caused by psychological job demands. High-strain jobs are those that have high demands on the employee and low decision latitude. A low-strain job affords the employee high decision latitude to respond to the job demands (Karasek & Theorell, 1990). Perceived job demands may have a negative impact on job satisfaction and organizational commitment (Sagie & Krausz, 2003). Low skill discretion occurs in jobs in which the employee has little or no opportunity to decide what skills to use to complete the job (Karasek & Theorell). In the workplace, low skill discretion has been associated with high emotional exhaustion, depersonalization, and feelings of low personal accomplishment (Rafferty, Friend, & Landsbergis, 2001). See appendix B

Physical Demands

Staff nurses provide direct patient care in a variety of settings. The level of physical demand on the nurse may vary depending on the setting. A nurse who works with newborns will not face the same physical demand of lifting a patient that a nurse working with adults in intensive care faces. Other common activities in the work setting can include moving equipment, spending time in awkward positions, constant walking, standing, and repetitive bending. All of which are physically demanding.

Nursing is among the top 10 occupations that have the most time lost due to injuries (Department of Labor, 2003). Shamian, O'Brein-Pallas, Thompson, Alksins, and Kerr (2003) studied the effect of job strain on the health of nurses. Data was gathered by focus groups with a total of 121 nurses participating. Prior to attending the focus group, the nurses were asked to complete a form that listed the top interventions related to preventing nursing work injuries. Common circumstances around which injuries occur include workload, short staffing, and lack of teamwork with coworkers to assist each other in completing heavy job tasks. Also, with the physical environment, such as cramped spaces where pivoting a patient may be more difficult is

attributed to nursing injuries (Shamian et al., 2003). Many nursing duties, such as turning or transferring a patient occur on a horizontal plane and require the use of smaller, weaker muscles in the arms and shoulders rather than the larger leg muscles. The use of the small muscles of the upper extremities increases the chance of injuries (Nelson, Fragala, & Menzel, 2003).

Job Insecurity

For staff nurses with FMS, job insecurity may arise from the demands the disease places on their bodies. FMS is a recurring-remitting disease, often characterized by periods of relatively low disease activity, which can flare unpredictably with varying degrees of severity. This unpredictability may make it difficult to maintain a normal work schedule. Sleep disturbances are one of the symptoms of FMS. Commonly, the person with FMS has a poor quality of sleep called nonrestorative sleep. Nonrestorative sleep is associated with increased pain and fatigue in FMS and other rheumatic conditions (Lashley, 2003).

Scheduling requirements of a job may be difficult to meet after the onset of FMS, making it difficult for the staff nurse to maintain the same job after disease onset. Depending on the work setting, nurses may be required to work rotating shifts, or be available for work after normal shift hours in an on-call situation during nights and weekends. These scheduling demands may impact an FMS-afflicted nurse to get adequate rest, and may aggravate pre-existing sleep disturbances, setting up a cycle of sleep deprivation, fatigue, and pain. Jakobsen (2001) interviewed 13 people who had returned to work after sick leave to explore how they adapted to the return to work. These interviews revealed that the amount of workplace flexibility and the belief one holds about one's own work performance may impact one's sense of job security. Job security may hinge on one's feelings of their ability to perform as well as workers without chronic illness or at the level of performance prior to disease onset (Jakobsen, 2001).

Social Support

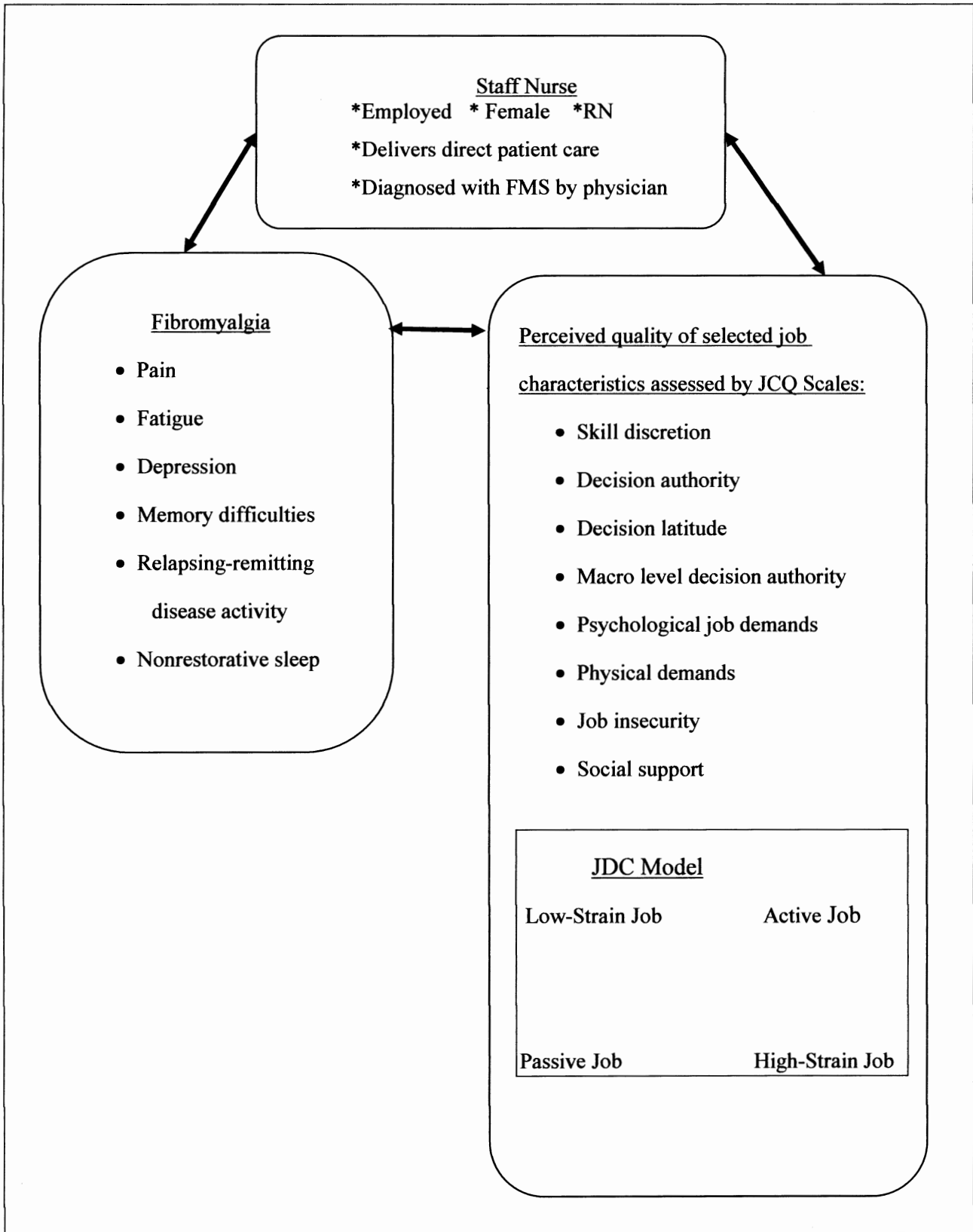
Studies about the impact of social support in the workplace indicate that social support decreases the relationship between job stressors and strain. AbuAlRub (2004) used a web-based

survey to investigate the relationship between job stress, job performance, and social support among nurses. A total of 263 hospital employed nurses took the survey. Hospital nurses who believe they receive social support at work perform better at their job than those who do not feel social support at work. Nurses who reported a moderate level of job stress perceived their job performance as lower than nurses who reported high or low levels of job stress (AbuAlRub).

The effect of gender traits on social support and occupational stress has been studied by Beehr, Farmer, Glazer, Gudanowski, and Nadig-Nair (2003). A survey was conducted of 117 hospital supply company employees. It was found that people with more feminine traits responded more positively to social support than people with more masculine traits. They also found that if the source of social support was also the source of the stress, such as a manager, the effect of social support was weakened. Finally, the effect of conflict between groups at work on team performance was studied by Cox (2003). A total of 141 nurses from 13 units in a large hospital were surveyed. Cox found that intrapersonal conflict increases the perception of intragroup conflict in nurses and has a negative effect on work satisfaction (Cox, 2003).

Conceptual Framework

Below is a rendering of the conceptual framework for this research. The dimensions of FMS, the scales of the JCQ, and the quadrants in the JDC are included as well as the demographics of the population of nurses this study is researching. This framework is a representation of the relationships between the person, FMS and the characteristics of the job.



Conceptual Framework

Nursing and the Quality of Worklife

Studies of staff nurses and their work environment are generally job satisfaction studies. These studies have indicated that employment in a hospital inpatient setting has a negative effect on job satisfaction and stress levels of staff nurses increase when they believe patient care is compromised by the conditions of the workplace. Hall (2004) interviewed 10 nurses about work related stressors under normal working conditions. Shaver and Lacey (2003) surveyed 600 registered nurses and 600 practical nurses about job satisfaction in their work settings. The findings of the 2 studies include staff shortages, inexperienced colleagues, and use of unlicensed assistive personnel as major stressors for staff nurses (Hall, 2004; Shaver & Lacey, 2003). Additionally, job tenure was not found to be a predictor of job satisfaction (Shaver & Lacey).

Workplace “hassles” that impact nurses’ job satisfaction was studied by Egglefield-Beaudoin and Edgar (2003). Focus groups were conducted with 121 nurses to explore hassles and stressors in the workplace. Hassles include interdepartmental, operational, and administrative and nurse conflicts. Nurse hassles are lack of respect, lack of recognition, lack of support, and stress. All of these hassles frustrate nurses by taking time away from patient care (Egglefield-Beaudoin & Edgar, 2003).

Finally, job satisfaction is affected by relationships with coworkers and management. Thirty staff nurses were interviewed by McNeese-Smith (1999) for a content analysis of job satisfaction and dissatisfaction. Job satisfaction was found to be related to balanced workload, good relationships with coworkers, pay, and benefits. Job dissatisfaction was related to feeling overloaded, coworkers who did not provide good patient care, and poor relationships with coworkers. “A negative attitude toward coworkers and gossip or criticism from coworkers has been shown to be a source of work dissatisfaction among nurses” (McNeese-Smith, 1999).

Fletcher (2001) surveyed 1,780 RNs employed in hospitals to determine if stress in RNs was associated with workplace illness and injury. In addition to staff shortages and the use of unlicensed assistive personnel, participants reported supervisor lack of response to problems,

lack of physical presence, and manager turnover all contributed to stress in these participants at work.

Gaps in the Literature

In the literature reviewed for this study, no information was found that focused on the perceptions of selected job qualities of staff nurses with FMS. The issue of convincing others has arisen in studies of women with chronic illness, a salient point in all aspects of life, but might be especially important in the workplace. The ADA has been enacted to protect people with disabilities in the employment arena, and employers say they have no difficulty hiring people with disabilities. However, when actual hiring practices are reviewed employers actions do not support their statements (Essex, 2002; Hernandez & Keys, 2000). A lack of understanding of the challenges of living with a chronic illness is illustrated by healthy women who do not understand fatigue that women with FMS face (Soderberg, Lundman, & Norberg, 2002).

In literature reviewed about nursing and the quality of worklife, findings indicated that job tenure is not indicative of job satisfaction (Shaver & Lacey, 2003). Nurses report workplace "hassles" that include operational issues between departments, lack of support from supervisors and coworker conflicts (Egglefield-Beaudoin & Edgar, 2003). A link between low social support and a perception of higher psychological demands has been established in the literature (AbuAlRub, 2004; Beehr, Farmer, Glazer, Gudanowski, & Nadig-Nair, 2003). None of the studies found on nursing and the quality of worklife included studies about staff nurses with FMS.

Summary

Current medical knowledge offers no firm answer as to the cause of FMS. Women with FMS often see diagnosis as a relief since they do not have a terminal illness and report that receiving a diagnosis lends legitimacy to the complaints and credibility to their experiences (Bury, 1982; Hellstrom, Bullington, Karlsson, Lindqvist, & Mattson, 1999). Women with FMS also find that once the diagnosis is established, people do not understand the plight of those with FMS (Schaefer, 1995; Soderberg & Lundman, 2001). In the absence of a concrete explanation,

the individual attempts to make sense of what has happened (Ohman, Soderberg, & Lundman, 2003). This results in the individual looking for some life circumstance that caused the onset of the disease. The start of a new self concept follows when it becomes evident that changes will need to be made in order to accommodate the development of a chronic illness.

In the studies about the impact of FMS, the changes that participants focused on include developing new patterns or regular schedules that assist them in managing their illness. This organizing of life allows the affected individual the flexibility to do what one can without overextending oneself, and paying the price by feeling increased pain or fatigue because of one's activities (Soderberg & Lundman, 2001). Some of the changes mentioned by participants included the reorganization of household responsibilities as well as an altered social life based on the level of disease activity (Charmaz, 2002).

The dimension of work is also included in the reorganization. In the studies reviewed, the participants discussed feelings of alienation, taking lower level occupations, or having to stop working. This has both financial and emotional impact. The loss or downgrade of a job at a time when medical bills are rising is stressful, as is the sense of betrayal by an employer (Schaefer, 1995; Soderberg, Lundman, and Norberg 1999). The degree of flexibility in the workplace is a key factor for a person with chronic illness to maintain a job (Bury, 1982).

The use of the JCQ enabled an examination of how staff nurses with FMS perceive selected qualities of their job. The JCQ has been used to determine the amount of demand and control a person has over their work. Literature has shown the degree of flexibility in the workplace is a key factor for a person with chronic illness to maintain a job (Bury, 1982). The JCQ addresses workplace autonomy by examining an employee's skill discretion, decision authority, and decision latitude, as well as the physical and psychological demands of the job. All are salient points for this population who experience chronic pain and fatigue.

The fact that employment plays an important role in the lives of the participants in the studies reviewed and the negative impact that the illness has had on employment points to the need for a study that explored the working lives of women with FMS. This study gathered

information about the perceptions of selected job qualities of staff nurses with FMS, a topic that had not been found in the literature reviewed for this study.

Chapter III Methodology

Design

The proposed study was a descriptive exploratory study. The survey instrument was the Job Content Questionnaire (JCQ) and was self-administered through the use of an Internet web site that was accessible to the participants 24 hours a day, 7 days per week over an 8-week period. Participants completed the survey, and this web site removed all identifying information to protect the privacy of the participants prior to the researcher accessing completed surveys.

Instrument

Participant Questionnaire

A questionnaire consisting of 14 forced-choice items and the JCQ survey was used to collect data for this research. Questions 1 through 4 of the participant questionnaire addressed the inclusion criteria for participation: level of nursing education, gender, diagnosis of fibromyalgia syndrome (FMS) by a physician, and employment in a job providing direct patient care. Questions 5 through 10 asked participants about work setting, scheduled hours per week, changes in hours or jobs that have occurred because of symptoms of FMS, and if their job requires mandatory overtime or on-call hours. These questions were included because any changes in work setting, scheduled hours or additional time required above scheduled hours may impact the perception of selected job qualities. Question 11 asked participants about their ability to meet on-call or mandatory overtime requirements. This was included because the consequence of this demand may influence the participants' perception of selected qualities of their job.

Questions 12 through 14 addressed the age of the participants, their most predominant symptom of FMS, and length of time since diagnosis. These questions were included because age, predominant symptom, and amount of time since diagnosis may influence the perception of job qualities of participants.

Job content questionnaire (JCQ)

The Job Content Questionnaire (JCQ) is a self-administered likert scale survey that assesses employee perceptions of the workplace. The JCQ is available in 3 formats: a short

version, a recommended version, and a long version. The short version consists of 27 core questions that comprise the scales of decision latitude, which is a combination of skill discretion and decision authority scales. Psychological work load, physical work load, and job insecurity scales are also included in the short version (Karasek, 1985).

The version recommended by the author for most users of the JCQ was used in this study. This recommended version is a total of 49 questions, 22 of which are added to the original questions in the short version. The additional scales in the recommended version include manager and coworker social support, macro-level decision latitude scale, additional job insecurity questions, and a question about the skill level required for the job. There have been 2 editorial changes made to the questionnaire, a question referring to the manager as “him” has been modified to read him/her. The second editorial change substitutes the words “plant closings” with the words “unit closings”. These changes have been made to better fit the workplace of the participants of this study.

The long version of the JCQ incorporates more scales which address topics of global competition, chemical exposure in the workplace, and work and social identity, among other available scales. At the conclusion of the JCQ an open-ended question was added, inviting the participants to add any information they think is relevant to their perceptions about working with FMS. Space was provided for an answer of 300 characters, or approximately 3 lines of text. A copy of the questionnaire is found in appendix B.

Sample

The sample consisted of 65 female registered nurses who worked in a staff nurse position providing direct patient care in a Midwestern state. The nurses have reported being diagnosed with FMS by a physician. In the United States today, it is estimated that approximately 2% of the population have FMS. Women with a mean age of 45 comprise 80 to 90% of the total number of sufferers (Wallace, Shapiro, & Panush, 1999). The number of participants hoped for is approximately 20, if the statewide nursing population reflects the national estimate of FMS occurring in 2% of the population, 1,000 female nurses registered in the state may need to be

contacted to get 20 participants, a sample that echoes the national estimate of people with FMS. Participants were not excluded if they are outside the mean age of 45 years old; however, only female nurses were invited to participate. The Wisconsin registered nurse workforce data reports 69, 533 license renewal notices were mailed in 2001 (Division of Healthcare Financing, 04).

Protection of Subjects

The participants in this research did not fit the criteria of a protected population (Polit, Beck, & Hungler, 2001). They completed the survey on the Internet from a location of their choice. A completed survey was considered implied consent on the part of the participant. The respondents' identifying information was removed prior to access by the researcher, and no connection to their workplace was required for participation in the study. All survey results will be kept confidential by the researcher.

Risk and Benefits

The risks of participation in this study were related to Internet use (Duffy, 2002). There is no way to assure total anonymity although identifying information was removed prior to researcher access to the completed questionnaire. The benefit of participation in this research may include a feeling of making a contribution to information about working while having FMS. Participants may also be interested in learning more about this research and were given the email address of the researcher, for any questions about the study or the results. Contact information was also provided at the questionnaire web site for the researcher's faculty advisor, and the Chairperson of the University Institutional Review Board.

Data Collection Plan

The plan for data collection was to post the survey on a web site where the participants could access and complete the survey. The web site used was WWW.studentresearcher.com. This web site removed identifying data of participants and collected the information in a database of the researcher's choice. The JCQ was designed as a self-administered survey with likert scale answers which took approximately 15 minutes to complete. A hard copy of the questionnaire is found in Appendix B. Data collection was limited to an 8-week period.

An advertisement and notification in the “Colleagues Corner” column was placed in *Nursingmatters*, a statewide nursing newspaper that is delivered monthly to the homes of nurses throughout the state. This advertisement listed the criteria for inclusion in the study along with the address of the website where the questionnaire was posted. Informal networking was also used to inform nurses fitting the criteria for the study of the web address of the questionnaire.

If a low response rate occurred after the advertisements and web site had been up for 6 weeks, participants would be invited to join the study based on random selection from the state board of nursing list using a random numbers table through the use of a flyer. The flyer would be mailed to the home address of the nurses selected, informing them of the study and providing the web address where the survey could be accessed and the email address of the researcher. If those selected did not fit the criteria, they would be invited to refer other staff nurses fitting the criteria for this study. A copy of the flyer is found in Appendix C.

Characteristics of Sample

The participants were female nurses of working age. They resided in a Midwestern state, were employed in a staff nurse position, and were diagnosed with FMS by a physician. These participants had access to a computer and were able to fill out the survey online.

Bias

The potential for sampling bias existed since this was an online survey (Duffy, 2002). Those nurses without access to a computer, or who did not have the level of computer literacy required to fill out the survey, were probably unable to respond. Nurses who believed they have FMS but were not diagnosed by a physician were not included in this research. Only nurses who reported they had been diagnosed with FMS and were currently working in a staff nurse position were asked to participate in this research. The mood of the participant may have affected the survey answers, and if a participant did not understand a question, she did not have anyone to ask for clarification. The goal of the JCQ is to gather objective data about the work environment with questions designed to report about, not evaluate the participant’s job (Karasek et al.). A pilot study of the questionnaire as it appeared on the website was done to test for ease of use, the

amount of time required to complete, and to determine if unanticipated issues arose. There were 5 pilot participants who were nurses with a range of self-rated computer skills.

Interpreting Results

The proposed study was exploratory and descriptive; therefore, the results of this survey were analyzed using descriptive statistics. The relevant demographics and information on the range of perceptions of selected job qualities of staff nurses with FMS was collected. Descriptive statistics such as percentages, means, modes and correlations were calculated using a computer program to tabulate the data.

Resources Needed

Resources needed included the JCQ, user's guide, a publication available from the University of Massachusetts-Lowell which contains information about the JCQ scales and terms of use. Additional resources included computer access to the Internet, along with a list including the names and addresses of nurses currently licensed in the state in which the research was conducted. Other resources were money and time. There was time involved developing the flyers, and preparing the *Nursingmatters* advertisement and the "Colleagues Corner" article that appeared in *Nursingmatters*. If necessary, participants would be contacted through mailings using the postal system, which would require duplication fees and postage costs. Time was also required to place the questionnaire on the Internet, and to retrieve, analyze, and interpret the results. Financial resources were also needed to utilize the web site.

Availability and Familiarity

The JCQ is available for use through the Department of Work Environment at the University of Massachusetts-Lowell, the organization that granted permission to use the JCQ survey for the proposed study. The questionnaire has been used internationally and has been written to accommodate participants at multiple levels of educational achievement (Karasek et al. 1998). The JCQ version used in this research has been in use since 1984. The version includes a database linkage system that enables users to compare their findings to national results using occupation codes (Karasek et al.).

Norms and Comparability

The recommended version of the JCQ is a 49-item survey that was developed from a data base on job characteristics in the United States. The original data base is a combination of 3 nationwide random Quality of Employment Surveys (QES). The participants were randomly selected and employed a minimum of 20 hours per week and were between 18 and 65 years of age. The QES surveys were developed for the U.S. Department of Labor by the University of Michigan Survey Research Center and were conducted in 1969, 1972, and 1977 (Karasek & Theorell, 1990). The original JCQ replicates the QES survey questions; refinement of the original questions and the addition of questions to expand job insecurity and social support occurred in 1984. The JCQ enables surveys of small groups to be compared to the national findings for people in the same jobs using the QES data base. The JCQ has been translated into other languages for use in Europe, Sweden, and Japan in addition to the United States and Canada (Karasek et al. 1998). Including the participant survey, the JCQ survey, and 1 open ended question, the total number of questions will be 64.

Validity and Reliability

The JCQ is a self-administered instrument that is designed to measure respondent's perceptions of social and psychological characteristics of jobs (Karasek et al. 1998). The goal of the JCQ is to gather objective data about the work environment, with questions designed to report about, not evaluate, the participant's job (Karasek et al.). The questions are written in simple language to enable the inclusion of people with various levels of education. The response set is designed to assess the validity of statements about the work environment on a 4-point scale to aid the weighting of the questions (Karasek et al.). The goal of gathering objective data about work environments is to get reports about jobs while minimizing the evaluation of the job by the participant. The JCQ also covers aspects of qualitative work situations using a small number of scales so the interactions between the scales in the JCQ can be compared (Karasek et al.). International comparison of the JCQ scales in 4 countries-the United States, the Netherlands, Canada, and Japan- show Cronbach's alpha coefficient for women is .73 (Karasek et al. 1998).

Correlations between scales in studies using the JCQ from the countries listed above, shows 75% of the correlations have low variability.

Population Appropriateness

The research question related to perceptions of selected job qualities of staff nurses diagnosed with FMS. The JCQ is a survey instrument that assesses perceptions about characteristics of a job. The survey has been used in the U.S. and other countries for 20 years and is designed for use with participants who have various levels of education. The recommended version of the JCQ is a 49-item self-administered survey that is designed to get an objective assessment of the job characteristics of the participant.

Administrative Issues

Permission to use the JCQ was granted by the author, Dr. Robert Karasek, through the University of Massachusetts-Lowell. This survey was posted on a secure website that removed identifying information of the participants prior to access by the researcher. There were issues of time and money involved in administering this survey. There were costs associated with placing the advertisement in *Nursingmatters*, the statewide nursing newspaper and with posting the survey on the website. Had there been a low response rate to the advertisement, flyers would have been mailed to the homes of randomly selected nurses which would result in postal and duplication fees. There was also time involved in analyzing, interpreting, and writing the results.

Reputation

The JCQ is used in multiple countries, including the U.S. where it was developed. The recommended version, which was used for this research has been in use for 20 years. The results can be compared to the national scores by sex, industry, and occupation codes (Karasek et al. 1998).

Implementation of Data Collection

The JCQ was posted on a secure website. Acquaintances of the researcher were informed of the survey and asked to invite nurses they knew who fit the criteria of the research, staff nurses diagnosed with FMS. If, after 6 weeks the advertisement in the statewide nursing

newspaper, *Nursingmatters* yielded a low response, invitations to nurses in a Midwestern state would have been mailed in flyers to women selected from the list of nurses in the state using a random numbers table. Data collection occurred over an 8-week period. Data analysis began at the conclusion of collection.

Summary

After receiving approval for the study, the survey was posted on the website, and the advertisement and article was published in *Nursingmatters*. Data collection lasted for 8 weeks. If there had been a low response to the article and the advertisement, a flyer would have been mailed to women selected from the list of nurses in the state using a random numbers table. Data analysis began at the conclusion of data collection.

Chapter IV: Data Analysis

Introduction

The aim of the study was to describe the perception of the quality of worklife held by staff nurses with fibromyalgia (FMS). The research question was: How do working staff nurses with FMS perceive selected qualities of their job as measured by the job content questionnaire (JCQ)? The survey consisted of 2 parts; first part was a 14-question participant survey that addressed inclusion criteria, FMS, and job specifics; the second part was the recommended version of the JCQ.

The JCQ is a self-administered likert scale survey that assesses employee perceptions of the workplace. The JCQ is available in 3 formats: a short version, a recommended version, and a long version. The short version consists of 27 core questions that comprise the scales of decision latitude, which is a combination of skill discretion and decision authority scales. Psychological work load, physical work load, and job insecurity scales are also included in the short version (Karasek, 1985).

The version recommended by the author for most users of the JCQ was used in this study. This recommended version contains a total of 49 questions, 22 of which are added to the original questions in the short version. The additional scales in the recommended version include manager and coworker social support, macro-level decision latitude scale, additional job insecurity questions, and a question about the skill level required for the job. There were 2 editorial changes made to the questionnaire, one question referring to the manager as “him” has been modified to read him/her. The second editorial change substitutes the words “plant closings” with the words “unit closings”. These changes were made to better fit the workplace of the participants of this study.

The long version of the JCQ incorporates more scales that address topics of global competition, chemical exposure in the workplace, and work and social identity, among other available scales. At the conclusion of the JCQ, an open-ended question was added, inviting the participants to add any information they think is relevant to their perceptions about working with

FMS. Space was provided for an answer of 300 characters, or approximately 3 lines of text. A copy of the questionnaire is found in appendix B.

Data Analysis

Data Collection

Data was collected for this study by posting the survey on the Internet at the web site WWW.studentresearcher.com. The survey was posted for 8 weeks, and an advertisement including the web address was placed in *Nursingmatters*, a monthly nursing newspaper delivered to the homes of nurses throughout the state. A small article was also published in *Nursingmatters* during the second month of data collection.

Reliability

International comparison of the JCQ scales in 4 countries- the United States, the Netherlands, Canada, and Japan-yielded a Cronbach's alpha coefficient for women is .73 (Karasek et al. 1998). With the population of this study, Cronbach's alpha varied by scale. Decision authority had a Cronbach alpha of 0.72. Psychological job demands scale had a Cronbach's alpha of 0.87, and physical job demands had a Cronbach's alpha of 0.77. The supervisor social support scale and coworker social support scale had a Cronbach's alpha of 0.81 and 0.79, respectively.

JCQ Scales with Low Reliability

A total of 4 scales had a Cronbach's alpha score lower than 0.70. Those scales are: skill discretion, decision latitude, macro level decision authority, and job insecurity.

Skill discretion

The skill discretion scale Cronbach's alpha of 0.55 was, for unknown reasons, not a reliable scale for use with the participants of this study.

Decision latitude

The decision latitude scale had a Cronbach's alpha of 0.65. This scale is the combination of the skill discretion scale and decision authority scales and appeared to be affected by the skill discretion scale reliability score.

Job Insecurity

The job insecurity scale with a Cronbach's alpha of .001 was not useful with this survey sample. The fact that these participants reported a high level of job security may have made this scale irrelevant to the respondents.

Macro level decision authority

Macro level decision authority had a Cronbach's alpha of 0.43. Three of 8 questions in this scale address the employee's membership in a union or employee association and the effect this has on their workplace. Eighty-nine percent (89%, n = 52) of the participants did not fill in a response or did not belong to a union or employee association, a fact which may account for the reliability score found for this scale. See Table 1.

Table 1

Descriptive Statistics of Subscale Scores

	M	SD	Cronbach
Skill discretion	3.11	0.38	0.55
Decision authority	2.88	0.55	0.72
Decision latitude	3.03	0.36	0.65
Macro level decision	3.03	0.40	0.43
Psychological job demands	2.89	0.48	0.87
Physical job demands	2.48	0.64	0.77
Job insecurity	1.92	0.25	0.03
Supervisor social support	2.94	0.61	0.81
Coworker social support	3.02	0.43	0.79

Levels of Measurement

Nominal and ordinal data were reported and analyzed. Ordinal levels were assigned to answers of the first 14 questions which constituted the participant survey, and contained

inclusion criteria and questions specific to the participants' job, and the participants' symptoms, and time since the diagnosis of FMS. Nominal level measurement was used for the likert scale answers of the JCQ. Finally, the last question of the survey was an optional open-ended question that was analyzed by searching for themes and categories of responses.

Descriptive Statistics

Data analysis was completed using a computer program, Statistical Package for the Social Sciences (SPSS). The total number of respondents was 70. Six respondents were eliminated from consideration due to ineligibility in terms of the study inclusion criteria. Questions that were unanswered or incorrectly answered for inclusion in the study were those that inquired about the participant's gender, work duties of direct patient care, and the diagnosis of FMS by a physician. All of the remaining participants met the inclusion criteria, reporting that they were female RNs who provide direct patient care and have been diagnosed with FMS by a physician.

Education and Workplace

Of the 65 remaining participants, 43 % (n = 28) had a baccalaureate degree, 34% (n = 22) had an associate degree, 15% (n = 10) had a diploma degree, and 8% (n = 5) had a masters degree. One question asked what level of education was required for the job and 42% (n = 27) reported a 4 year college education was required and 58 % (n = 37) reported some college required.

The majority of participants, 65% (n = 42), worked in a hospital setting, followed by long term care at 14% (n =9), 8% (n = 5) worked in home care, 5% (n = 3) in a physician office, and 3% (n = 2) worked clinic and "other" setting. One participant left the work setting blank. See Table 2 on page 45.

Table 2

Educational level and Workplace Setting Frequency and Percent

<u>Work Setting</u>	<u>Frequency</u>	<u>Percent</u>
Clinic	2	3%
Home Care	5	8%
Hospital	42	65%
Long term care	9	14%
Physician office	3	5%
Public health	1	2%
<hr/>		
Educational Level		
Associate Degree	22	34%
Baccalaureate	28	43%
Diploma	10	15%
Masters	5	8%

Work Status and Job Requirements

Forty-eight percent (48%, n = 31) worked full time. Forty-five percent (45%, n = 29) worked part time, and 6% (n = 4) worked as-needed status. Sixty-two percent (62%, n = 40) had not changed jobs related to FMS, but 65% (n = 42) had changed the number of hours they worked. Mandatory overtime was not a job requirement for 77% (n = 60) and 45% (n = 29) reported that their job required on-call time. Fifty-one percent (51%, n = 33) reported they were able to meet the on-call and overtime job requirements. See Table 3 on page 46.

Table 3

Work Status and Job Requirements Frequencies and Percentages

Full time equivalent	Frequency	Percent
Full time (>36 hrs/week)	31	48%
Part time (< 36 hrs/week)	29	45%
PRN status	4	6%
Hours Change		
Yes	42	65%
No	23	35%
Job Change		
Yes	25	38%
No	40	62%
On-Call Responsibilities		
Yes	29	45%
No	36	55%
Mandatory Overtime		
Yes	5	8%
No	60	77%

Age Range

Five age ranges were listed. Six percent (6 %, n = 4) of participants reported being 20-29 years of age. Nine percent (9%, n = 6) reported being 30-39, 34% (n = 22) reported being 40-49, 43% (n = 28) reported being 50-59, and 8% (n = 5) reported being 60-64 years of age. See Table 4 page 47.

Table 4

Age Range Frequencies and Percentages

Age Group	Frequency	Percent
20-29	4	6%
30-39	6	9%
40-49	22	34%
50-59	28	43%
60-64	5	8%

Most Predominant Symptom

Sixty percent (60%, n = 39) of participants reported that pain was the most predominant symptom of FMS followed by fatigue at 26% (n = 17), and sleep difficulties at 11% (n = 7). Depression and memory difficulties were reported as the most predominant symptom by 2% (n = 1) for both categories. See Table 5.

Table 5

Predominant Symptom Frequencies and Percentages

Symptom	Frequency	Percent
Depression	1	2%
Fatigue	17	26%
Memory difficulties	1	2%
Pain	39	60%
Sleep difficulties	7	11%

Time since Diagnosis

Six percent (6%, n = 4) of participants reported being diagnosed with FMS for less than 1 year. Three percent (3%, n = 2) reported being diagnosed for 1-2 years. Five percent (5%, n = 3) reported being diagnosed for 2-3 years, 12% (n = 8) reported being diagnosed for 3-4 years, and 74% (n = 48) reported being diagnosed for 5 years or longer. See Table 6.

Table 6

Time Since Diagnosis Frequencies and Percentages

<u>Time in Years</u>	<u>Frequency</u>	<u>Percent</u>
Less than 1 year	4	6%
1 to 2 years	2	3%
2 to 3 years	3	5%
3 to 4 years	8	12%
5 years or more	48	74%

Job Content Questionnaire Scales

The job content questionnaire consists of 49 questions composing 8 scales that measure workplace characteristics.

Skill discretion

This scale is defined as the ability of the employee to decide what skills to use on the job and the amount of flexibility afforded the employee in deciding what skills to use (Karasek & Theorell, 1990). Ninety-two percent (92%, n = 60) of participants reported that creativity is required on their job and that they are able to learn new things at work. Seventy-five percent (75%, n = 49) reported their work is repetitive. Ninety-two percent (92%, n = 60) reported their job requires a high level of skill and involves doing a variety of things. Seventy-eight (78%, n =

50) reported their job affords them the opportunity to develop their own special talents and abilities. See Appendix B questions 1-6.

Decision Authority

This is the organizationally determined amount of freedom one has to make decisions on the job (Karasek & Theorell, 1990). Ninety-one percent (91%, n = 58) reported that they are able to make their own decisions on the job. Eighty percent (80%, n = 52) reported that they have little freedom to decide how their work is completed. Forty-eight percent (48%, n = 31) reported that they have a lot of say about what happens on the job. See Appendix B questions 8 - 10.

Decision Latitude

This scale combines the concepts of skill discretion and decision authority and is defined as the degree of freedom the individual has in making decisions related to his or her job tasks (Karasek & Theorell, 1990).

Macro Level Decision Authority

Macro level decision authority is the impact or influence an individual employee has over decisions made in groups or at higher levels in the organization (Karasek & Theorell, 1990). Fifty-five percent (55%, n = 36) reported that they had individual influence over work group decisions. Forty-six percent (46%, n = 30) worked in a group of 20 or more people. Twenty-two percent (22 %, n = 14) had a work group size of between 10 and 20 people. Twenty percent (20%, n = 13) had 6-10 people in their work group, 11% (n = 7) had a work group size of 2-5 people, and 2% (n = 1) worked alone. Fifty-eight percent (58%, n = 37) reported that their work group makes decisions democratically. Forty-eight percent (48%, n = 31) reported that there was some chance their ideas were considered about company policy. Thirty-two (32%, n = 21) reported that they did not supervise others as part of their job. Forty-three percent (43%, n = 28) reported that they supervised 1-4 people, 12% (n = 8) reported that they supervised 5-10 people, 6% (n = 4) reported that they supervised 11-20 people, and 6 % (n = 4) reported that they supervised more than 20 people.

This scale includes questions about membership in a union or an employee association and 89% (n = 58) of the participants reported that they did not belong to one of these groups. Thirty-two percent (32 %, n = 11) reported that their union or employee association was influential at the company level, 68% (n = 26) reported that they disagreed with that statement and 27 participants did not answer that question. Twenty-eight percent (28%, n = 10) reported that they agreed the union or employee association was influential in affecting company policy, 40% (n = 26) reported that they disagreed, and 45% (n = 29) participants did not answer that question. These numbers did not coincide with the number of participants who reported that they belonged to a union or employee association eleven percent (11 %, n = 7). It is unknown why participants who reported that they did not belong to a union or employee association answered these items. See Appendix B questions 11 – 18.

Psychological Job Demands

This scale measures how hard one works at tasks such as meeting deadlines or quotas (Karasek & Theorell, 1990). Eighty-two percent (82%, n = 53) reported that their job requires working fast. Eighty-four percent (84 %, n = 54) reported that their job required working hard. Thirty percent (30%, n = 19) reported that they were not asked to do an excessive amount of work. Fifty-four percent (54%, n = 34) reported that there was enough time to complete their jobs, and 20% (n = 13) reported that they were free from conflicting demands from others in the workplace. Fifty-seven percent (57%, n = 37) reported that their job requires long, intense concentration, and 85% (n = 55) reported that there were frequent interruptions when trying to complete tasks. Eighty percent (80%, n = 52) agreed their job was hectic and 50% (n = 32) agreed that waiting on work from other people or departments slowed them down with their job. See Appendix B questions 19 – 27.

Physical Demands

Physical demands are defined as the physical requirements of the job (Karasek & Theorell, 1990). Sixty-two percent (62%, n = 40) reported that their job requires a lot of physical effort. Forty-three percent (43%, n = 28) reported that they are often required to move or lift

heavy loads at work. Forty-five percent (45%, n = 29) reported that their work requires rapid and continuous physical activity. Thirty-three percent (33%, n = 21) reported that they are required to work for long periods with their body in physically awkward positions, and 41% (n = 26) agree that their job requires them to work for long periods with their head and arms in physically awkward positions. See Appendix B questions 28 – 32.

Job Insecurity

Job insecurity is defined as the threat or reality of job termination or layoff faced by the employee (Karasek & Theorell, 1990). Ninety-eight percent (98%, n = 59) reported that their work was regular and steady and 2% (n = 1) reported that their job was seasonal. Two participants did not answer this question. Ninety percent (90%, n = 59) reported that they have a high degree of job security, 8% (n = 5) disagree with the statements of job security and 2% (n = 1) did not answer the question. Eighty-five percent (85%, n = 55) reported that they never faced the possibility of layoff in the past year, 11% (n = 7) reported that they faced the possibility, 2% (n = 1) reported to have faced the possibility more than once, and 2% (n = 1) reported to have constantly faced the possibility of layoff. Two percent (2%, n = 1) did not answer this question.

Forty-three percent (43%, n = 28) reported that it is not at all likely they will lose their jobs in the next couple of years. Forty-five percent (45%, n = 29) reported that they believe job loss in the next couple of years is not too likely, and 11% (n = 7) reported that job loss is somewhat likely in the next couple of years. Fifty-two percent (52%, n = 33) reported that they agree that prospects are good for career development or promotion. Ninety-seven percent (97%, n = 63) reported that their skills will still be valuable in 5 years. See Appendix B questions 33 – 38.

Social Support

Social support is defined as the overall levels of helpful social interactions available on the job from both coworkers and supervisors. Seventy-seven percent (77%, n = 50) indicated agreement with the statement that their supervisor is concerned about the welfare of those under him or her. Seventy-six percent (76% n = 49) indicated agreement with the statement that their supervisor pays attention to what they say. Twenty-three percent (23%, n = 15) indicated

agreement with the statement that they are exposed to hostility or conflict from their supervisor. Seventy-four percent (74%, n = 48) indicated agreement with the statement that their supervisor is helpful in getting the job done. Sixty-two percent (62%, n =39) reported that they believe their supervisor is successful in promoting teamwork.

Eighty-six percent (86%, n = 56) indicated agreement with the statement that their coworkers are competent in doing their jobs. Eighty-two percent (82%, n =52) indicated agreement with the statement that their coworkers take personal interest in them. Twenty-nine percent (29%, n =19) indicated agreement with the statement that they are exposed to hostility or conflict from coworkers. Ninety-five percent (95%, n =61) indicated agreement with the statement that their coworkers are friendly. Eighty-three percent (83%, n =53) indicated agreement with the statement that their coworkers encourage teamwork. Eighty-nine percent (89%, n = 58) indicated agreement with the statement that their coworkers are helpful in getting the job done. See Appendix B questions 39 – 49.

Relational Statistics

The answers from the JCQ were recoded from a 4-point likert scale ranging from strongly agree to strongly disagree, to two categories, agree and disagree. The scales listed in the JCQ were then recreated for purposes of data analysis. Some of the participant questionnaire items were also grouped to form 2 categories. These were categorized where a natural break occurred and because none of the other categories were large enough for meaningful analysis. For example, the workplace setting was grouped to “hospital” and “other” because the hospital was considered unique from the other listed categories due to the multiple areas of work available to a staff nurse employed within that setting, and because the majority of the participants reported being employed in a hospital setting. Age range was also grouped to “age 50 and above” and “below age 50” related to potential differences in years of work experience and because 51% (n = 33) of the participants reported being age 50 or above. Length of time since diagnosis was grouped as “less than 5 years” and “5 years or more” because of potential differences in expertise of learning to live with FMS over time and 74% (n = 48) reported being diagnosed for 5 years or

more. Answers for the most predominant symptom of FMS were grouped as “pain” and “other” because 60 % (n = 39) participants reported pain as their predominant symptom and widespread musculoskeletal pain is considered the diagnostic symptom of FMS by the American College of Rheumatology (ACR) (Henriksson, 2003; Paget, Gibofsky, & Beary, 2000).

Chi Square was calculated using the scales and items from the participant questionnaire to look for relationships between perceptions of workplace characteristics and the work setting of staff nurses with FMS. Relationships were also looked for between age and staff nurses with FMS and any relationships between the workplace and the most predominant symptom of FMS reported by participants.

Chi Square Results

Chi square (χ^2) was calculated using the SPSS computer program. The JCQ questions were analyzed as the instrument scales and as individual questions with selected demographics from the participant questionnaire. Statistical significance was set at p value of .05.

Work Setting and JCQ Scales

One statistically significant association was found between work setting, “hospital” or “other”, and was positively associated with physical demands. $\chi^2 (1, N = 65) = 12.53, p = <.01$. The hospital was associated with perceptions of high physical demands. See Table 7 on page 54.

Table 7

Chi Square Work setting and Physical Demand Scale

Work Setting	Agree	Disagree	Row Total	Row Percent
Hospital	25	3	28	44.0%
Other	3	19	22	56.0%
Column Total	22	42	64	100%
Chi Square		Value	df	Significance
Pearson		12.53	1	< .01
Minimum expected frequency		9.63		
Statistic		Value		Approximate Significance
Phi		.439		.000
Lambda Symmetric		.217		.240

Predominant FMS symptom and JCQ scales

No statistically significant association was found at the p value of .05 for the FMS symptoms of depression, fatigue, sleep difficulties or memory difficulties. There were significant associations found between pain and some workplace characteristics which are discussed on page 51.

Age Group and JCQ Scales

One statistically significant association was found between age group and macro level decision authority. Participants over 50 years of age believed they had influence over decisions made at the organizational level $\chi^2 (1, N = 65) = 3.83, p = .05$.

Individual JCQ questions and workplace

Seventy-six percent of staff nurses employed in the hospital setting, had not changed jobs as a result of having FMS $\chi^2 (1, N = 64) = 9.77, p = <.05$. FMS had not impacted the participants' current job to the degree that they needed to change jobs. See Table 8.

Table 8

Chi Square Work setting and Job Change

Work Setting	Agree	Disagree	Row Total	Row Percent
Hospital	26	16	42	66.0%
Other	2	20	22	34.0%
Column Total	35	29	64	100%
Chi Square		Value	df	Significance
Pearson		9.77	1	< .01
Minimum expected frequency		8.25		
Statistic		Value		Approximate Significance
Phi		.391		.002
Lambda Symmetric		.217		.240

Workplace and Staff Nurse Perceptions

Employment as a staff nurse in a hospital was associated at a statically significant level with perception of having little say about what happens on the job $\chi^2 (1, N = 63) = 8.99, p <.05$, and with having little individual influence on work group decisions $\chi^2 (1, N = 63) = 4.40, p <.05$. The hospital was associated with being a more hectic workplace $\chi^2 (1, N = 64) = 6.83, p = <.05$, that requires working faster $\chi^2 (1, N = 64) = 8.66, p <.05$. The hospital was associated with perceptions of harder physical work $\chi^2 (1, N = 63) = 9.33, p <.05$. The hospital workplace was

associated with having to move or lift heavy objects $\chi^2(1, N = 64) = 16.36, p = <.01$. See Table 9.

Table: 9

Chi Square Work setting and Requirement to Move and Lift Heavy Loads

Work Setting	Agree	Disagree	Row Total	Row Percent
Hospital	26	16	42	66.0%
Other	2	20	22	34.0%
Column Total	35	29	64	100%

Chi Square	Value	df	Significance
Pearson	16.36	1	< .01
Minimum expected frequency	9.63		

Statistic	Value	Approximate Significance
Phi	.506	.000
Lambda Symmetric	.280	.176

The hospital work setting was also associated with working in a job that required rapid continuous physical activity $\chi^2 (1, N = 64) = 13.57, p = <.05$. See Table 10.

Table:10

Chi Square Work setting and Rapid and Continuous Physical Activity

Work Setting	Agree	Disagree	Row Total	Row Percent
Hospital	26	16	42	66.0%
Other	3	19	22	34.0%
Column Total	35	29	64	100%
Chi Square		Value	df	Significance
Pearson		13.57	1	< .01
Minimum expected frequency		9.97		
Statistic		Value		Approximate Significance
Phi		.461		.000
Lambda Symmetric		.255		.207

Perceptions of good potential for career development or promotion was associated with working in a hospital setting $\chi^2 (1, N = 64) = 3.84, p = .05$, and with having a supervisor who successfully promoted teamwork $\chi^2 (1, N = 63) = 4.06, p <.05$. The hospital was also associated with a job that required long, intense concentration $\chi^2 (1, N = 63) = 3.92, p <.05$.

Staff nursing in the hospital setting was associated with requests to do an excessive amount of work $\chi^2 (1, N = 63) = 7.60, p <.05$. See Table 11 on page 53.

Table 11

Chi Square Work setting and Requests for Excessive Amount of Work

<u>Work Setting</u>	<u>Agree</u>	<u>Disagree</u>	<u>Row Total</u>	<u>Row Percent</u>
Hospital	7	34	41	66.0%
Other	11	11	22	34.0%
<u>Column Total</u>	<u>35</u>	<u>29</u>	<u>63</u>	<u>100%</u>
<u>Chi Square</u>		<u>Value</u>	<u>df</u>	<u>Significance</u>
Pearson		7.60	1	< .05
Minimum expected frequency		6.29		
<u>Statistic</u>		<u>Value</u>		<u>Approximate Significance</u>
Phi		.347		.006
Lambda Symmetric		.100		.611

The hospital was associated with an environment where waiting for work from other people or departments slowed the nurse down on her job $\chi^2 (1, N = 63) = 12.70, p < .01$. See Table 12.

Table 12

Chi Square Work setting and Waiting on Work From Others

Work Setting	Agree	Disagree	Row Total	Row Percent
Hospital	28	14	42	67.0%
Other	17	4	21	33.0%
Column Total	35	29	63	100%
Chi Square		Value	df	Significance
Pearson		12.70	1	< .01
Minimum expected frequency		10.33		
Statistic		Value		Approximate Significance
Phi		.449		.006
Lambda Symmetric		.308		.077

FMS Symptoms and Staff Nurse Perceptions of Workplace

A predominant symptom of FMS of pain was associated with the perception that waiting for work from others slows them down on their job $\chi^2 (1, N = 64) = 6.47, p < .05$. Pain was moderately also associated with working in a job that does not require moving or lifting heavy loads $\chi^2 (1, N = 65) = 7.06, p < .05$, and associated with a job that required a high level of physical effort $\chi^2 (1, N = 65) = 4.33, p < .05$. Pain was also associated with the perception of coworkers being friendly $\chi^2 (1, N = 64) = 4.60, p < .05$.

Age Group and Workplace Perceptions

Being 50 years of age and older was associated with having individual influence over work group decisions $\chi^2(1, N = 65) = 5.55, p = <.05$. See Table 13.

Table 13

Chi Square Age group and Individual Influence over work group Decisions

Age Group	Agree	Disagree	Row Total	Row Percent
20-49 years of age	13	19	32	49.0%
50-64 years of age	23	10	33	51.0%
Column Total	36	29	65	100%

Chi Square	Value	df	Significance
Pearson	5.55	1	< .05
Minimum expected frequency	9.63		

Statistic	Value	Approximate Significance
Phi	.292	< .05
Lambda Symmetric	.246	.125

Open-Ended Question

The final item of the survey was an optional open-ended question, inviting the participants to add any relevant thoughts they had on working with FMS. Answers were limited to 300 characters. Of the 65 participants, 51% (n = 33) opted to answer this question. Initially, these responses were read through in their entirety to get a general feel of the responses. A second reading was done examining each response separately and highlighting key words and phrases. These highlighted items were then placed into general categories using index cards. The

index cards were then grouped according to categories. Once the categories were developed 2 themes emerged. The first theme was workplace social support and the second theme was the impact of FMS on worklife.

Workplace Social Support

The theme workplace social support was divided into two areas: coworkers and supervisors.

Coworker Social Support

The coworker issues reported by respondents appeared to address the difficulty of having an “invisible illness”. A staff nurse employed in the hospital setting made the following comments about invisible illness: “Coworkers don’t accept fibromyalgia as real, even after being educated, because you don’t look like there is anything wrong with you. I feel that coworkers and employers don’t fully understand how FMS affects workers. Unlike a person who suffers from RA or having back injuries, their disease processes can be visualized so coworkers sympathize.” Another participant reported: “Some coworkers think I cannot do the job because of the diagnosis, without even checking to see that I can.” Finally, one participant employed in a clinic wrote: “I look OK for my age so no one realizes what I am feeling.”

Supervisor Social Support

All the respondents who commented on their supervisors also reported that they worked in the hospital setting. The supervisor is portrayed negatively by those who mentioned this in their comments. One reported: “My difficulties at work are mainly because of my supervisor- she doesn’t care about staff but how she looks.” Another participant reported: “My supervisor is 30 and only thinks of herself first.” Finally, one reported on scheduling issues at work: “There is no consideration for adaptability for changing shifts...for some of us.”

FMS and Worklife

The most frequent comments addressed the impact of FMS on work. Comments ranged from the difficulty of working with FMS to formal or informal work adaptations the participants had made to maintain their jobs. One participant who was employed in a hospital and reported

on work and accommodation wrote: "There is no accommodation provided in the workplace for persons with fibromyalgia and short of not working at all there are few options." Another participant employed in a long-term care setting wrote about what appeared to be informal accommodations she made for herself: "I have noticed that lifting makes my FMS worse. Since I have eliminated the lifting as much as I can, I don't have the severe pain on my job now."

Physical Impact

These comments indicate that some participants have difficulty in their jobs and try to "make do" with their circumstances and that these difficulties occur on a continuum, some having more difficulty than others. Another hospital employee reported the impact of her job outside of the workplace: "There is a recovery phase I go through after working a few consecutive shifts, and it involves physical and mental rest."

One participant reported having a difficult time meeting her current job demands: "I often have difficulty working long hours without breaks or even sitting down, getting meals or even just using the restroom. I come home late at night, exhausted barely able to move and to climb the stairs to the bedroom."

For others, their comments appeared to indicate that work seemed to run their lives by using up all their energy and leaving no energy for activities other than work. A nurse employed in an office setting indicated this in her comments: "Fibromyalgia limits the hours and areas where I can work, such as hospital nursing. All my energy goes into the job; fatigue leaves me with no personal life outside of work." A nurse employed in long-term care stated: "The fact that I have FMS is probably the highest factor in the position I chose to work."

There were also positive comments about the physical impact of work on FMS. One participant wrote: "Physical activity as a staff nurse is what I consider therapeutic treatment instead of meds." Another wrote: "My job consists of lots of position changes and varied activity not in one position for long periods. I believe this keeps spasms in muscles from occurring as much and keeps pain down."

Psychological Impact

The psychological impact of FMS and work was illustrated by the descriptions of stress and anxiety related to the ability to maintain the current job. A staff nurse working in long-term care wrote: "I have frequent anxiety about my ability to maintain the level of energy required to continue my current position." One participant employed in a hospital wrote about changing work roles: "I am transferring from direct patient care area to house supervisor due to pain from lifting and turning heavy patients but the hectic pace of supervision just adds to my sleep and memory problems. It's a real struggle." Another reported: "I was fired from a job after working there 28 years because of excessive absenteeism due to fibromyalgia."

Some positive statements were made about nursing. These statements described the fact that "having FMS does not change my knowledge base or skill level". Another mentioned: "as a nurse there are many avenues to maintain full time employment". The final comment stated "In home care you can work independently and at your own pace."

Some participants reported that they did not have any problems caused by FMS in the workplace. A nurse employed on nights in the hospital stated "I work permanent nights and have no problem coping with my disease and working." One other participant wrote: "How many times have I missed work because of this diagnosis? Never."

Summary of Findings

Participant Characteristics

The majority of participants worked in a hospital, had a baccalaureate degree in nursing, and had changed the number of hours worked but had not changed jobs, and were not members of a union or employee association. The majority also had been diagnosed with FMS for 5 years or longer and reported pain as their most predominant symptom.

JCQ Findings

Staff nurses with FMS reported that working in a hospital entailed higher physical demands than any was reported for any other work setting in this study. Staff nurses employed in the hospital setting reported that they had little input on how they did their jobs or influence on

work group decisions. Hospital employment was reported as requiring harder, faster work, and staff nurses in this setting reported that they are asked to do an excessive amount of work. Nurses who work in hospitals reported their work as hectic and indicated their work pace was slowed down by waiting on work from other people or departments. Nurses employed in hospitals reported that there is a good potential for promotion or career development and that their supervisors are successful at promoting teamwork. Staff nurses over 50 years of age reported that they had individual influence on work group decisions.

Social support, both supervisor and coworker, was not reported as a workplace issue for the majority of respondents in either the hospital or “other” workplace setting. Physical and psychological job demands were more often associated with working in the hospital, according to the participants in this survey and the threat of job insecurity was reported as low for all participants as 98% (n = 59) rated their job as regular and steady.

Participant Comments

While the JCQ survey provided information on the perceptions of selected workplace qualities by staff nurses with FMS, it did not provide information about the participants in their specific situations or in their own words. The open-ended question was optional and asked participants to add anything they felt was relevant to working as a staff nurse with FMS. Fifty-one percent (51 %, n = 33) of the participants answered the open ended question.

The JCQ social support scales showed that the majority of participants viewed both their supervisor and coworkers in a positive light. Of the 33 participants who responded to this question, 24% (n = 8) focused on social support in the workplace. These additional answers supplied information that augmented the JCQ survey findings and added dimension to the work lives of those who added their own thoughts. The participants who answered the open-ended question focused on social support in the workplace mentioning both coworkers and supervisors in their comments. Some respondents attributed the social support issues to ignorance of coworkers, relating their social support problems to workplace accommodation or having an invisible illness.

The physical impact of working was reported by these participants in both positive and negative terms. Physical demands of the job were seen as therapeutic for some and pain inducing for others. Difficulties in physical demands were accommodated through formal or informal means, such as changing jobs or eliminating painful activities from the current job as much as possible. The psychological impact of FMS in the workplace was expressed by nurses reporting concerns over their ability to maintain their current job.

Chapter V Summary, Conclusions, and Recommendations

Summary of Survey Findings

The perceptions of selected workplace characteristics of staff nurses with FMS reveal the hospital as a workplace in which these participants felt they had no say in their job or work group decisions. This may result in a feeling of disempowerment of the employee. Lower workplace decision-making authority has also been associated with being female (Rafferty, Friend, & Landsbergis, 2001).

There was significant association found between the hospital work setting and perceptions of a hectic workplace where these participants felt they were asked to do an excessive amount of work in an environment where waiting on work from others slowed them down. Waiting on work from others has been called workplace “hassles” (Egglefield-Beaudoin & Edgar, 2003), and these “hassles” also include feelings of lack of respect, and interdepartmental conflicts which impact the level of nursing satisfaction in the workplace. Among these participants, working in the hospital was also associated with the perception that this workplace requires harder physical work at a fast pace in which moving and lifting heavy objects was commonplace. Job insecurity was not a concern for this population in terms of layoffs.

The replies made to the open-ended question suggest that there was significant impact on the worklife of some staff nurses with FMS. The participant comments described the FMS experience of these nurses and their adaptations occurring on a continuum; some have no difficulties and others devote all their energy to maintain employment. While the majority of participants did not appear to have social support issues in the workplace, for those who did social support issues seemed to be a major theme in their work lives. The issue of convincing others about the presence and demands of FMS remains an important part of employment with FMS.

These participants viewed their coworkers as uninformed about the impact FMS has on an employee. They also mentioned the fact that a visible illness would probably result in a more

supportive workplace environment. The importance of validation by others and the difficulty of making adjustments to illness when one appears healthy have been addressed by Soderberg and Lundman (2001).

Supervisors were not portrayed positively in open-ended item responses made by participants. They were portrayed as selfish and unaccommodating to the employee with FMS. This is a very important point when it comes to maintaining employment; the degree of flexibility at the workplace is a key factor in the ability to remain employed (Bury, 1982).

Accommodation of FMS

Concern over the ability to maintain a job and the changes one has made in their present job reflect both the physical and psychological impact of maintaining employment with FMS. A few of these participants seemed to be struggling to find a job they could maintain in terms of both physical and psychological demands. Both formal and informal accommodations appeared to be used by these staff nurses. One participant mentioned that reducing heavy lifting decreased the pain at work. This woman did not say this had been accomplished by a formal request such as a work restriction. One nurse had left an administrative position citing the hours and the stress; another was considering transferring out of patient care to supervision because of the physical demands of her current job, but expressed concern over the psychological demands of the supervisory position. There were also comments about FMS being the deciding factor in where someone chose to work and how limiting it was to use all available energy for work leaving the participants no time for a social life.

These needs are intertwined with the social and financial implications of chronic illness. Working in a setting other than a hospital may mean a reduction in salary, or a reduction in hours to an as-needed status. The social impact of FMS is portrayed by the comments of the nurses who use all their available energy for their job.

Job Demand-Control Model

In Karasek's job demand-control model (JDC), nursing is characterized as an active job, one in which the employee has the opportunity to learn new skills, determine skill utilization,

and employ creativity in the course of the daily work. These nurses did agree their job contained these characteristics. However, for those participants employed as a hospital staff nurses, there was a degree of job strain that nurses from other settings did not appear to experience. According to the JDC, job strain results when there is a high level of demand and a low level of control over the demand by the employee (Karasek, 1979). The findings that the hospital was considered hectic and physically and psychologically demanding seemed to result in a higher degree of job strain. However, these same nurses viewed their chances for professional development as greater than those employed in other settings.

Conclusions

FMS impacts staff nurses on a continuum. Some participants reported no difficulty with employment as a staff nurse and FMS, while others reported difficulty with the physical demands of the job. The physical demand difficulties appeared to cause psychological strain for those participants who had difficulty meeting the physical demands. This psychological strain was experienced in terms of job accommodations, or searching for employment in positions that required less physical work. For some participants, FMS seemed to limit their employment opportunities and their social lives. Social support at work appeared to be lacking for some of the participants, in particular those employed in the hospital workplace.

The hospital workplace was associated with high physical demands where these staff nurses did not feel they had input in work group decisions. The hospital was also reported to be a hectic work environment, and requests for an excessive amount of work were made in a setting where waiting on work from others slowed down the nurse in her job. Job insecurity was not a concern for this population in terms of layoff.

Implications for Nursing

Nursing Practice

Implications from these findings include workplace education or sensitivity training to increase understanding and accommodation of the needs of staff nurses with FMS. The hospital work setting in which the majority of these nurses were employed needs to be altered in ways

that decrease the physical and psychological demands placed on staff nurses. A more ergonomic workplace could be beneficial for staff nurses and organizations and could result in reduced physical demands and increased retention of experienced nurses. Adjustment in daily operations could result in decreased psychological demands on staff nurses which could increase both staff retention and job satisfaction and reduce errors.

Nursing Education

Nursing education could include information about the psychological impact of chronic illness in terms of social support issues related to “invisible” chronic illnesses. An invisible illness meaning one that not only is unseen by the casual observer, but also by medical practice when no definitive diagnostic tests exist. It could be stressed to nursing students that not all illnesses have objective diagnostic findings. Information could be added that focuses on the impact chronic illness has on career trajectory, income, and ability to sustain employment. Finally, ways to assist nurses with FMS and similar chronic illness to remain in the workforce could be added to nursing education.

Recommendations for Future Study

Since this study focused on perceptions of job characteristics of staff nurses with FMS, conducting a study using the same version of the JCQ on staff nurses without FMS could be useful to compare the workplace perceptions of staff nurses. This study did not focus on the concept of “mastering” working with a chronic illness and there may be a difference in workplace perceptions of staff nurses with FMS related to length of time since diagnosis. A study could be done on staff nurses diagnosed for 1 year or less and staff nurses diagnosed for more than 5 years. These results could compare nurses who have “mastered” remaining employed while having FMS to those who are just learning how to incorporate into work lives. The perceptions of healthcare employees and immediate supervisors such as nurse managers’ attitudes toward staff nurses with FMS and similar chronic illnesses could be studied to further define attitudes and areas in need of improvement in the employment setting.

Appendix A

Consent

Welcome to the website containing the questionnaire for perceptions of selected workplace characteristics of staff nurses with fibromyalgia (FMS). This questionnaire is part of a research study being conducted by Eileen Piering, a Master's degree student in the College of Nursing at Cardinal Stritch University. The results of this research will be described as a part of a master's thesis but may later be incorporated into published reports.

This website will remove identifying information of the participants so you will remain anonymous. Results of this research will be kept confidential, and reported as a group. Additionally, the researcher will maintain confidentiality by keeping results in a locked cabinet for a period of 5 years, after which it will be destroyed. The questionnaire takes approximately 20 minutes to complete. There is no financial compensation for participating in this research. As a result of participation, you may develop a greater awareness of how you view working as a staff nurse while having FMS. You will also be helping a student learn how to conduct research.

Risks to you are considered minimal. Minimal risk is a risk that is not greater in magnitude or probability than those risks encountered in daily life. You may withdraw from this study without negative consequences. If you withdraw, your data will be eliminated from this study and will be destroyed.

If you have any questions or would like information on the results, please contact me via email at etpiering@stritch.edu, or my faculty advisor Dr. Margaret Murphy at mmurphy2@wi.r.com. You may also contact the Chairperson of the Institutional Review Board at Cardinal Stritch University, Thomas Barnard at (414) 410-4139 or by email at tsbarnard@stritch.edu.

Completing this survey indicates that you are giving your informed consent to be a participant in this study.

Thank you for participating in this study.

Eileen Piering

Appendix B

Participant questionnaire and JCQ

Instructions: Please click on the box with the appropriate answer to the following questions:

1. What is your highest level of nursing education?
 Associate degree Diploma Baccalaureate
 Masters Doctorate
2. What is your gender?
 Female Male
3. Do you provide direct patient care in your work?
 Yes No
4. Did a physician diagnose you with fibromyalgia?
 Yes No
5. What workplace are you employed in:
 Hospital Clinic Long term care Other
 Physician office Home care Public health
6. Current employment status:
 Full time (36-40 hours per week) Part time (less than 36 hours per week)
 PRN status (as needed)
7. Have you ever changed jobs because of your symptoms of fibromyalgia?
 Yes No

8. Have you changed the number of hours you work because of your symptoms of fibromyalgia?

- Yes No

9. Does your job require mandatory overtime?

- Yes No

10. Does your job require on-call hours?

- Yes No

11. If you answered “Yes” to question 9 or 10 are you able to meet those demands?

- Yes No

12. What is your age?

- 20-29 40-49 60-64
 30 to 39 50-59 65 or over

13. What is your **most predominant** symptom of fibromyalgia?

- Fatigue Sleep difficulties Depression
 Pain Memory difficulties

14. How long ago were you diagnosed with fibromyalgia?

- Less than 1 year 1 to 2 years
 2 to 3 years 3 to 4 years
 5 years or more

JCQ

Instructions: Please answer each question by checking off **one** answer that best fits your job situation. Sometimes none of the answers fit exactly. **Please choose the answer that comes closest.**

1. My job requires that I learn new things.

<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly agree
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2. My job involves a lot of repetitive work.

<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly agree
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3. My job requires me to be creative.

<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly agree
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4. My job requires a high level of skill.

<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly agree
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5. I get to do a variety of different things on my job.

<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly agree
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6. I have an opportunity to develop my own special abilities.

<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly agree
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7. What level of skill is required on your job in terms of years of formal training. (Not necessarily the same as your education.)

<input type="checkbox"/> Elementary education only	<input type="checkbox"/> Some college education
<input type="checkbox"/> Junior high school education	<input type="checkbox"/> College graduate (4-years)
<input type="checkbox"/> High school graduate	<input type="checkbox"/> Graduate school

17. My union or employee association is influential in affecting company policy.
 Strongly disagree Disagree Agree Strongly agree
18. I have influence over the policies of the union or employee association.
 Strongly disagree Disagree Agree Strongly agree
19. My job requires working very fast.
 Strongly disagree Disagree Agree Strongly agree
20. My job requires working very hard.
 Strongly disagree Disagree Agree Strongly agree
21. I am **not** asked to do an excessive amount of work.
 Strongly disagree Disagree Agree Strongly agree
22. I have enough time to get the job done.
 Strongly disagree Disagree Agree Strongly agree
23. I am free from conflicting demands that others make.
 Strongly disagree Disagree Agree Strongly agree
24. My job requires long periods of intense concentration on the task.
 Strongly disagree Disagree Agree Strongly agree
25. My tasks are often interrupted before they can be completed, requiring attention at a later time.
 Strongly disagree Disagree Agree Strongly agree
26. My job is very hectic.
 Strongly disagree Disagree Agree Strongly agree

27. Waiting on work from other people or departments often slows me down on my job.
- Strongly disagree Disagree Agree Strongly agree
28. My job requires lots of physical effort.
- Strongly disagree Disagree Agree Strongly agree
29. I am often required to move or lift very heavy loads on my job.
- Strongly disagree Disagree Agree Strongly agree
30. My work requires rapid and continuous physical activity.
- Strongly disagree Disagree Agree Strongly agree
31. I am often required to work for long periods with my body in physically awkward positions.
- Strongly disagree Disagree Agree Strongly agree
32. I am required to work for long periods with my head or arms in physically awkward positions.
- Strongly disagree Disagree Agree Strongly agree
33. How steady is your work? (check one)
- Regular and steady Seasonal Frequent layoffs
- Both seasonal and frequent layoffs Other
34. My job security is good.
- Strongly disagree Disagree Agree Strongly agree

35. During the past year, how often were you in a situation where you faced job loss or layoff?
- Never faced the possibility once faced the possibility more than once
- Constantly actually laid off
36. Sometimes people permanently lose jobs they want to keep. How likely is it that during the next couple of years you will lose your present job with your employer?
- Not at all likely Not too likely Somewhat likely Very likely
37. My prospects for career development and promotions are good.
- Strongly disagree Disagree Agree Strongly agree
38. In five years, my skills will still be valuable.
- Strongly disagree Disagree Agree Strongly agree
39. My supervisor is concerned about the welfare of those under him/her.
- Strongly disagree Disagree Agree Strongly agree
- I have no supervisor
40. My supervisor pays attention to what I am saying.
- Strongly disagree Disagree Agree Strongly agree
- I have no supervisor
41. I am exposed to hostility or conflict from my supervisor.
- Strongly disagree Disagree Agree Strongly agree
- I have no supervisor

42. My supervisor is helpful in getting the job done.
 Strongly disagree Disagree Agree Strongly agree
 I have no supervisor
43. My supervisor is successful in getting people to work together.
 Strongly disagree Disagree Agree Strongly agree
 I have no supervisor
44. People I work with are competent in doing their jobs.
 Strongly disagree Disagree Agree Strongly agree
45. People I work with take a personal interest in me.
 Strongly disagree Disagree Agree Strongly agree
46. I am exposed to hostility or conflict from the people I work with.
 Strongly disagree Disagree Agree Strongly agree
47. People I work with are friendly.
 Strongly disagree Disagree Agree Strongly agree
48. The people I work with encourage each other to work together.
 Strongly disagree Disagree Agree Strongly agree
49. People I work with are helpful in getting the job done.
 Strongly disagree Disagree Agree Strongly agree

Optional Question

50. Please feel free to add any information that was not addressed in the questionnaire that you think is relevant to your perceptions about working and having fibromyalgia.

Please limit your response to three lines in the space provided below.

Appendix C

RN's Diagnosed with Fibromyalgia

I need your help!

If you are a female RN diagnosed with fibromyalgia by a physician and currently work in a staff nurse position delivering direct patient care:

My name is Eileen Piering; I am a graduate student at Cardinal Stritch University in Milwaukee. I am doing my graduate thesis on the work experiences of female RNs with fibromyalgia working in a setting in which you provide direct patient care.

If you are a female RN diagnosed with Fibromyalgia by a physician and are working in a job in which you deliver direct patient care **PLEASE** participate in this survey.

The topic of work experiences of staff nurses diagnosed fibromyalgia interests me for several reasons:

- I was unable to find any research regarding the work experiences of nurses with fibromyalgia.
- Fibromyalgia is characterized by musculoskeletal pain, fatigue, depression and sleep disturbances. The majority of people with fibromyalgia are women. This is why I am limiting this research to female RNs.
- Chronic illnesses are a challenge to manage
- Working in a setting in which you deliver direct patient care can be physically demanding on healthy people, how does it affect nurses with fibromyalgia who are delivering direct patient care?

In order to get information on this topic, I have placed a survey on the Internet at www.-----.com.

The survey takes approximately **15 minutes to complete**.

This is a secure site and no identifying information will be collected by this web site.

Your responses will be provided anonymously to me.

A completed survey will be considered consent by the participant.

If you have any questions or are interested in the results of this study please contact me via email at: etpiering@stritch.edu. I will be happy to answer any questions you may have.

If this does not apply to you, please inform friends who fit these criteria.

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