INTRODUCTION TO THE

SquareONE Rehabilitation

COMPLEX/COMMUNITY CLAIMS REHABILITATION PROGRAM

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EFFECTIVE: FEBRUARY 1, 2020

GENERAL OVERVIEW OF SquareONE Rehabilitation

SquareONE Rehabilitation includes a 2,900 square foot facility dedicated to providing the highest quality of rehabilitation and disability management services.

SquareONE Rehabilitation primary's purpose is to provide comprehensive rehabilitation and disability management programs which effectively and safely assist in returning participants back to the labor force and back to their family roles.

At **SquareONE Rehabilitation** we emphasize an interdisciplinary approach that is cost effective. We recognize that no single health profession has the answer to treating chronic musculoskeletal problems. Instead, we realize that uniting different disciplines is essential to successfully treating the clients who suffer with these problems.

The **SquareONE Rehabilitation** professionals are working hard in developing relationships with some of the top professionals in the field of musculoskeletal medicine and therefore are able to deliver the highest quality care for clients.

At **SquareONE Rehabilitation** we continually strive to update our skills both academically and clinically as new medical and rehabilitation research is continually advancing. We are dedicated to providing the best possible care and to promoting wellness and rehabilitation of the *people* in our community.

The clinic provides numerous medical, disability management services including chiropractic, physiotherapy, athletic and sports injury rehabilitation, massage therapy, acupuncture, employment enhancement programs, occupational rehabilitation programs, chronic pain rehabilitation, as well as a variety of products that treat or manage physical pain.

Our resources enable us to provide a full range of services for patients while offering a number of uniquely individualized treatment programs. **SquareONE Rehabilitation** experienced team of professionals offer optimum patient care in a compassionate setting while providing the highest quality of innovative resources in the most cost effective manner.

By implementing an interdisciplinary team approach, and integrating individualized programs of specialized treatments, exercise, education combined with the resources of multi-disciplinary consultants, our mission at **SquareONE Rehabilitation** is to deliver specialized and caring rehabilitation. Our approach is dedicated to helping people exceed their limitations, help patients return to work and back to family activities.

The programs provided by **SquareONE Rehabilitation** focus on enhancing a person's functional abilities and teaching them how to maintain their enhanced status of health and fitness, thus achieving a higher quality of life.

The **SquareONE Rehabilitation team** demonstrates that '***teamwork works***'.

THE PROBLEM

Persons who consider themselves totally disabled from participating in active living and from returning to the workforce face significant barriers due to social, economic, medical and functional restrictions. The medical and psychological barriers coupled with low self-esteem and the lack of currently marketable skills results in this specific population's inability to participate in active living and to secure competitive employment. Individuals who have diagnoses such as chronic pain syndrome, fibromyalgia, chronic fatigue syndrome, or repetitive strain injuries that do not resolve, and chronic psychiatric difficulties also fall into this category.

Individuals who have been in receipt of financial benefits in excess of 6 to 12 months face significant barriers to actively returning to their communities and to the work force. Many such individuals require psychological intervention, medical management, social supports, vocational training periods, extended work adjustments and, in most circumstances, assistance in securing employment.

Highly individualized services are required for such complex cases, which are not easy to disentangle. To date, the unique services required to resolve such cases have not been readily available.

PROPOSED SOLUTION

The *Complex Claimants Rehabilitation Program* is designed to provide suitable candidates with individualized comprehensive rehabilitation services, which are delivered by a Interdiscplinary team.

Overall, the *Complex Claimants Rehabilitation Program* is designed to provide the participants with specific skills, which will re-integrate them back into their communities and back into the work force. Through successful participation in the *Complex Claimants Rehabilitation Program*, the participants are prepared to acquire the skills and confidence to pursue and maintain gainful employment.

This proposal will address the existing problems of inadequate services for this population and present recommendations which when implemented will provide viable solutions.

Rehabilitation of the Future:

SquareONE Rehabilitation provides unique, interdisciplinary rehabilitation treatment services for individuals suffering from conditions that impair their ability to function in the workplace or that completely disables them from pursuing employment or from fully participating in other aspects of their lives.

Dr. Capitano, along with his many collaborative colleagues, has been working towards a methodology that has significant implications in the manner in which employers and insurers, as well as health care professionals, can most efficiently and cost effectively work with these individuals in a manner that is consistent with the patient's degree of

suffering, and yet yields the highest rate of effective resolution both for the patient and for the third parties.

This new methodology of treatment services is provided in a *Complex Claimants Rehabilitation Program* and is delivered by an interdisciplinary team of professional therapists who act as "field consultants" and work with the patient on a one-on-one basis within the patient's own environment.

The success of this unique rehabilitation process is based on the de-medicalization of the patient's difficulties, combined with emphasis on learning strategies for successful coping and enhancement of functioning. Close collaboration between health care professionals, the insurer, the employer, the patient and their families, contributes to successful outcomes.

Dr. Capitano have extensively researched and concluded that the key to assisting these types of patients to re-enter the workforce and re-integrate back into society involves off-site rehabilitation interventions and a paradigm shift from the Disease Model to an Illness Model in health problem management.

DISEASE MODEL (BIOMEDICAL) VS. ILLNESS MODEL (BIOPSYCHOSOCIAL)

The distinction between the **disease model and the illness model** is crucial to understanding chronic illness syndromes, their respective assessments and clinical management. **Disease** is defined as an *"objective biological event" that involves disruption of specific body structures or organ systems caused by pathological, physiological or anatomical changes*. **Illness** is defined as a *"subjective experience or self-attribution" that a disease is present; it yields physical discomfort, emotional distress, behavioral limitations and psychosocial disruption*.

In the context of the programs **SquareONE Rehabilitation** offers, it is assumed that disease results from a specific claim-related injury. Based on the definition, a disease process has objective pathology, which follows a predictable course. An illness is the sequelae of a disease that results from both pre-injury and post-injury learning in addition to social reinforcement. As long as an illness is treated as a *disease* the illness is reinforced and the subsequent symptoms and resulting disability persists.

***COMPLEX CLAIMANTS REHABILIATION*:**

PROGRAM

Interdisciplinary Assessment commences with the initial assessment. This preliminary assessment includes an in-depth review of the claimant's medical records and an assessment by the medical team in order to rule out the possibility of the presence of an unresolved disease process or need for further medical assessments or interventions.

At **SquareONE Rehabilitation** the medical model is confined to the identification and medical management of identifiable pathology or known disease processes. The

primary role of medicine is to optimize the patient's medical management and identify the need for further implementation of medial or surgical interventions.

Medicine must provide a clear statement of the issues of harm and irreducible limitations tied to actual medical problems based solely upon definable disease or pathology. The patient must then be advised that the practice of medicine, as a singular intervention, has no further contribution to make in terms of diagnosis or treatment.

The medical specialist then works with external medical providers to ensure that all medical interventions have been completed and ensures that they are in agreement with the process of de-medicalizing the claimant's condition. This step is critical because any ongoing medical assessments, referrals, or treatments would undermine the rehabilitation process and reinforce the claimant's perception of their disability. The medical specialist is able to optimize any pain-relieving medication the claimant is using and therefore ensure that the minimum medication is used to gain the maximum effect in improved function.

The next step in the assessment process is developing a baseline assessment of the claimant's functioning. The Psychologist/Psychiatrist conducts interviews with the patient and their family members as needed. Interviews, and appropriate psychological testing aid in gaining an understanding of the claimant's status along with their beliefs and disability.

A Mini Functional Abilities Evaluation is completed to gather base-line information on the person's physical abilities. A functional assessment is conducted by a certified ARCON evaluator and/or EPIC evaluator, and, if appropriate, a meeting with the patient's employer and a possible on-site examination of the specific job is also conducted. Thus, an overview of the claimant's present level of functioning is established. This allows the rehabilitation team to develop a starting point for rehabilitation as well as a measurement for improvement.

Tracking of improvement serves two purposes. The first is to verify that progress is being made in rehabilitation, as well as serving as a tool for reinforcing the claimant's progress. Continued tracking serves as an instrument for educating the claimant that there is the potential for recovery. The assessments are conducted at **SquareONE Rehabilitation** facility, the medical community and in the patient's home.

The assessment process, combined with compiling a report, may take 1month to complete. The report will provide recommendations with respect to treatment. If treatment is recommended, the estimated duration of treatment, and the anticipated cost of treatment will be specified.

Interdisciplinary Treatment takes place primarily in the claimant's own environment. Dependent upon the presenting problems, and the claimant's circumstances, the Field Consultants may meet with the claimant 3 to 5 times per week, for 2 to 4 hours at a time.

The Field Consultants implement a wide variety of specific treatment components which are customized for each case, including:

- Cognitive-behavioral therapy for pain, fatigue, depression, anxiety and other presenting complaints;
- Physical activation and mobilization; Stress management; Sleep hygiene;
- Activity management;
- Medication management;
- Intervention with family members;
- Vocational planning and re-entry into the workforce

THE ROLE OF THE PSYCHOLOGIST: A COGNITIVE-BEHAVIORAL APPROACH

The patient's remaining difficulties, and the appropriate intervention for those difficulties, must then be conceptualized not from a medical or disease model, but from the models available to us from behavioral science. This allows for the identification of the traditional psychological factors, which contribute to the patient's discomfort and disability. It also includes the patient's belief system. Their belief system must be explored and inferred from their verbal and nonverbal behavior as well as their understanding of their symptoms, and based upon an objective examination. Patients are often very unaware of the factors that influence their own behavior and are likely to come to false conclusions that they genuinely believe when asked to state those factors that impact upon or determine their own behavior.

Patient's belief systems are derived, not just from what they are told, but what they infer from the environment around them. This includes the behavior of their health-care professionals. For example, we may tell a chronic pain patient that they are not at risk for doing themselves harm by engaging in physical activity. However, if at the same time, we structure an activation program that hinges on the patient using their subjective state of pain to guide how much or how little they do, the strong implicit message is that pain is a signal for harm and should be minimized or avoided, even while articulating the belief that hurt and harm are different and that pain does not equate to harm. Our actions speak much louder than our words and carry significant implications for how a patient will view their ongoing discomfort and disability. Similarly, it is extremely difficult to convince the patient that medicine really has nothing further to offer in the way of diagnosis or effective treatment of disease, but at the same time schedule further tests and investigations and implement interventions that carry the implications of underlying disease or pathology, which further disables the patient.

SquareONE Rehabilitation's interdisciplinary model endorses the Psychologist as the Senior Clinician who directs assessment and treatment. The Psychologist and the treatment team implement a cognitive-behavioral approach, which effectively utilizes a behavioral approach, de-medicalizes the rehabilitation process and progresses the patient through their rehabilitation.

ROLE OF THE FIELD CONSULTANT: OFF-SITE REHABILIATION

One of the primary difficulties of many therapies is transferring changes in the patient's beliefs and behaviors from the therapeutic setting to the real world of family and work. This difficulty is often encountered with inpatient treatment programs. Many patients are successful at changing their behavior within the inpatient setting. However, when they return to their own environment, an entirely different set of stimuli and environmental contingencies take hold, and the patient's behavior frequently relapses to its pre-treatment state.

Our solution is to implement treatment programs with patients in their own environment. The Field Consultants are able to identify specific factors, which impact on the success of rehabilitation outcomes. Communication strategies between the patients and their significant others are observed. Interactions, which are contributing to continued discomfort and ongoing disability are identified. Under the direction of the Psychologist, the Field Consultants instruct the patients and their families how to change, implement and assess the effectiveness of positive behaviors in the environment where the patient must ultimately function.

Working with patients within their own environment provides a less threatening setting than meeting them in the context of 'the psychologist's office for therapy.' The Field Consultant has the opportunity to recommend a variety of cognitive-behavioral strategies in the patient's home where the patient may feel a significant measure of comfort and acceptance.

As the patient progresses through a goal-oriented rehabilitation plan, a structured individualized return to work program is formulated. The field consultants, assist the patient in re-integrating into the labour force. If warranted, a vocational assessment, and/or transferable skills/labour market analysis are conducted in order to establish an appropriate and achievable career direction.

Instruction is provided in job search techniques and the patient is provided with individualized assistance in securing employment.

In partnership with employers, the field consultants will identify any barriers that may impede the patient from successfully participating in the work force. The patient is coached through a work adjustment period and provided with job retention and stress management strategies. If appropriate, and in agreement with an employer, work sites are assessed and modifications are implemented. Follow-up contact with the employer and patient is maintained until the employment placement is considered to be secure and the goals of the rehabilitation plan achieved.

COMMUNICATION

The **SquareONE Rehabilitation** team understands the importance and benefit of ensuring ongoing collaboration between our team members, the health care professionals involved with the patient, the insurer and the employer.

To ensure clear and accurate communication between all parties, including the patient, and to carefully and appropriately integrate everyone's roles, a '**Meeting of Understanding**' is coordinated. The patient, their family members, their physician, employer (if applicable) and all involved third parties are invited to participate.

Team Meetings are scheduled at the commencement of treatment programs, and at specific transition points in the patient's rehabilitation activities. Significant transition points include: returning to work, changing the administration of financial benefits or in re-organizing the flow of rehabilitation services.

COMPLIANCE AND RESISTANCE ISSUES

Patients with chronic pain are reluctant to "work through" their pain. This is related to their fears of re-injury, depression or psychosocial barriers to recovery. In the early stages of treatment, when fear and trust are usually major issues for the patient, non-compliance or failure to progress is dealt with in a supportive and educational manner. Significant time and effort are spent explaining the treatment rationale to patients, and working with them in a collaborative manner. At the same time, however, the rehabilitation team members must establish their roles as trained and experienced professionals and experts and encourage patients to increase physical activity.

Without the patient's motivation, the rehabilitation plan cannot succeed. Achieving successful rehabilitation outcomes is dependent upon constructively organizing environmental contingencies, which will inspire an individual to participate in the necessary activities, which will restore a reasonable level of function and return them back into the work force.

The **SquareONE Rehabilitation** team is skilled in facilitating the activities which enhance motivation and participation: communicating a consistent message from health care professionals; information regarding illness; information related to de-medicalization of a disability; coordinating employment incentives and ensuring access to financial benefits during rehabilitation combine to successfully progress the case to resolution.

Input by the patient is valued and a written plan which has been discussed and agreed upon by all participants involved in the rehabilitation plan is signed by the patient, their family physician, the referring source, the employer (if applicable), and an **SquareONE Rehabilitation** representative. The patient and team's motivation is founded on commitment.

COMPREHENSIVE TREATMENT PROGRAM

Initially the patients are provided with an individualized, comprehensive activation program, regardless of the patient's current level of function. The primary goal is to simply establish consistent activity in day-to-day living. As the patient advances in their program, exercises that focus on stretching, increasing range of motion, strengthening, developing endurance and cardiovascular fitness will gradually be introduced.

After a period of 2 months, the majority of patients are regularly participating in 20-30 minutes of daily cardiovascular exercises, modest weight training, comprehensive stretching and range of motion exercises; all designed for strengthening and promoting a positive psychological impact.

The patient's activity and sleep cycles are gradually re-structured with the focus of concentrating sleep within appropriate hours, improving the efficiency of sleep and maintaining appropriate activity levels during the day.

SquareONE Rehabilitation's approach to a comprehensive program implementation also includes an ongoing process of:

- Medical management
- Gradual reduction and elimination of unnecessary medication
- Education related to the patient's *illness*
- Assisting the patient to distinguish 'hurt from harm' ('discomfort from risk or damage')

A gradual resumption of vocational and recreational activities is introduced in approximately the last three quarters of the program. Vocational activities are commenced and are implemented in a structured and goal-oriented manner. Gradual Return to Work programs may involve attending the worksite for two hours on a daily basis with gradual time increases. Habits of regular attendance and consistent daily routines are developed. The time in the workplace is systematically increased according to a pre-determined schedule based on the patient's medical status, functional status and job demands.

SquareONE Rehabilitation's return to work experience indicates that with appropriate rehabilitation interventions, assisting the patient from a perceived inability to participate in a work environment to fully participating in full time employment can occur within 4 to 6 months. A graduated return to work program longer than 8 – 12 weeks is likely to entrench illness related behavior and perceptions of fragility, rather than result in a successful outcome.

The Therapists and/or Field Consultants serve as role models by participating in exercise and other activities with the patient. Physical programs are implemented at the **SquareONE Rehabilitation** facility. However, depending on the patient's place of residence and the perception of attending a medical facility, community-based fitness facilities are frequently preferred over the medical facilities.

Participation in a fitness program in a community fitness facility as opposed to participating in therapy with 'sick' or 'injured' patients encourages normal behaviors of joining in community activities. An outside fitness facility also provides an environment where the Field Consultant is able to participate in exercises along with the patient. The Field Consultant's presence serves as an implicit motivator and role model, and provides a non-threatening context to continue education with the patient. Any occurrences of illness behavior or increased symptoms can be addressed appropriately and expediently.

The program is explained to the patient's family members who are encouraged to support the patients by assisting them to increase their function and eliminate any inappropriate reinforcement of illness behavior.

Cognitive-behavioral techniques, biofeedback and relaxation training are also employed. Teaching activities and strategies that can be used to control discomfort and enhance function are the focus of the program. Implementing modalities that make the patient a passive recipient of care are minimized.

Although Field Consultants work with patients within their homes, therapy transitions into the patient's workplace. The clinic setting is utilized minimally to administer necessary treatment. Treating the patient outside a clinic setting de-medicalizes non-medical issues, and gradually shifts the individual's perception away from being treated as a *disabled patient* to the belief of being able to restore themselves to a normally-functioning person

APPENDICES

SOMATIZATION AND SYMPTOM MAGNIFICATION VERSUS MALINGERING

It is tempting to view the patient as malingering and faking. However, we must maintain a sense of respect for the patient because it is vital in any form of intensive treatment to understand that these individuals use their physical symptoms as a way of dealing with, and communicating about their emotional lives (somatization). In this type of symptom magnification, physical symptoms may be easier to accept as causing current unhappiness and discontent than admitting that some psychological reason is contributing to it. Rarely is a patient "faking" disability. Symptoms may also be magnified as a way of "saving face" and justifying continued disability after a long period of dysfunction. This may, therefore, reflect conscious or unconscious illness – affirming aspects of the abnormal illness behavior. It is essential that we are aware of this, specifically the psychologist, and we delineate carefully such issues and develop an appropriate strategy to deal with them effectively.

GENERAL EMOTION REACTIONS

Depression: almost all patients with chronic pain will be depressed to some degree (whether they acknowledge these feelings or not) because of the multiple losses they have sustained. These patients have lost jobs, family roles, self-image and self-esteem, financial loss and the belief in the medical system.

Anxiety and Fear: along with depression, almost all patients experience some degree of anxiety and fear. Often, a great fear of re-injury may significantly affect any effort in the physical reconditioning component of the program. Lack of finance, careers, relationships and physical capacity adds to a patient's concerns.

Anger: This is the most obvious reaction among this population. Frustration with the lack of physical progress and lack of consistency in medical treatment can produce dissatisfaction with the medical system. This same lack of progress leads to anger at family and friends, who may imply that they are faking the injury. It is important for treating staff to be sensitive to this anger and to defuse it whenever possible.

Multimodal Disability Management PROGRAM (MDMP)

MDMP is based on a cognitive behavioral approach and focus on overcoming physical and psychosocial difficulties that interfere with returning to a functional and productive lifestyle. Treatment issues deal with events in the present or the recent past, and patients are helped to understand how thoughts contribute to feelings and behaviors. MDMP focuses on the disability associated with the pain behavior and not merely the experience of pain.

By the time a patient comes to a treatment program for chronic pain, they have received multiple evaluations and a wide range of treatments. A common feature of most patients, regardless of the diagnosis, is that all interventions thus far have failed to alleviate their suffering. Thus, they feel demoralized and frustrated, as though their

situation is hopeless, and yet they are still seeking *'the cure'* for their suffering. The general goal of a cognitive–behavioral pain treatment program is to assist patients to re-conceptualize their view of their situation and their pain. Patients frequently come to our clinic with a view that pain is totally a medical problem over which they have little or no control. The cognitive–behavioral approach emphasizes both the effectiveness of the rehabilitation approach and the patient's ability to alleviate much of his or her pain and suffering if he or she is willing to work with the treatment team. In other words, this approach relies heavily on active patient participation and emphasizes a mutual problem solving approach among the treatment team, the patient and significant others in the patient's environment.

It is understood that each patient is unique and that each patient is evaluated so that his or her treatment program can be carefully tailored. Blindly administering the same disability management program to all patients will guarantee failure.

While the following approaches are psychologically based all members of the treatment team utilize these skills in their rehabilitation efforts.

MDMP AND ITS MAJOR AREAS IN THIS APPROACH

Cognitive-Behavioral Therapy

Cognitive-behavioral therapy is an action-oriented form of psychosocial therapy that assumes that maladaptive, or faulty, thinking patterns cause maladaptive behavior and "negative" emotions. (Maladaptive behavior is behavior that is counter-productive or interferes with everyday living.) The treatment focuses on changing an individual's thoughts (cognitive patterns) in order to change his or her behavior and emotional state.

A number of different techniques may be employed in cognitive-behavioral therapy to help patients uncover and examine their thoughts and change their behaviors. They include:

Behavioral homework assignments. Cognitive-behavioral therapists frequently request that their patients complete homework assignments between therapy sessions. These may consist of real-life "behavioral experiments" where patients are encouraged to try out new responses to situations discussed in therapy sessions.

Cognitive rehearsal. The patient imagines a difficult situation and the therapist guides him through the step-by-step process of facing and successfully dealing with it. The patient then works on practicing, or rehearsing, these steps mentally. Ideally, when the situation arises in real life, the patient will draw on the rehearsed behavior to address it.

Symptom Diary. Patients are asked to keep a detailed diary recounting their thoughts, feelings, and actions when specific symptoms or situations arise. The journal helps to make the patient aware of his or her maladaptive thoughts and to show their consequences on behavior. In later stages of therapy, it may serve to demonstrate and reinforce positive behaviors.

Conditioning. The therapist uses reinforcement to encourage a particular behavior. For example, a patient believes they are unable to perform a certain exercise, or states "I can't deal with another flare-up" will be positively re-enforced every time he or she stays focused on completing tasks and accomplishes certain activities. Reinforcement can also be used to extinguish unwanted behaviors by imposing negative consequences.

Systematic Desensitization. Patients imagine a situation they fear, while the therapist employs techniques to help the patient relax, helping the person cope with their fear reaction and eventually eliminate the anxiety altogether. For example, a patient with a fear of having a pain flare-up at the mall will relax and then picture herself on the sidewalk outside of her house. In her next session, she may relax herself and then imagine a visit to a crowded shopping mall. The imagery of the anxiety-producing situations gets progressively more intense until, eventually, the therapist and patient approach the anxiety-causing situation in real-life (a "graded exposure"), perhaps by visiting a mall. Exposure may be increased to the point of "flooding," providing maximum exposure to the real situation. By repeatedly pairing a desired response (relaxation) with a fear-producing situation (open, public spaces), the patient gradually becomes desensitized to the old response of fear and learns to react with feelings of relaxation.

Validity testing. Patients are asked to test the validity of the automatic thoughts and schemas they encounter. The therapist may ask the patient to defend or produce evidence that a schema is true. If the patient is unable to meet the challenge, the faulty nature of the schema is exposed.

Group counseling – helps to provide support from other's coping with a similar problem. It also helps to normalize the claimant's symptoms and can instill a sense of hope when they see that others are successfully dealing with a problems similar to theirs.

Family counseling - Family members are encouraged to take an active part in the rehabilitation process and are provided with information about the philosophy and specific details of MDMP. This is also an opportunity for them to voice how their significant other's illness has affected them and gain support.

Behavioral training - involves training in muscle relaxation, followed by exercises in guided imagery in which patients practice relaxing while imagining themselves in various stressful situations.

FACTORS LEADING TO DISABILITY

1. A patient's beliefs

Beliefs play a highly significant role in the degree of distress and disability a person experiences with their health problems. One of the significant disadvantages of creating medical syndromes such as chronic fatigue syndrome and fibromyalgia is the lack of definable pathophysiology associated with such conditions.

Patients are often told: "we know very little about this disease." This creates a high degree of uncertainty for the patient, and to a lesser degree, in the physician's frame of reference. Consequently, patients become very susceptible to various theories relating to specific syndromes. Certain theories may reinforce the patient's belief that their situation is hopeless, and that attempting to increase their function may actually cause them harm or that they must wait until medicine discovers the 'true cause' before they can be helped. Patients become fearful believing that certain activities may result in harm or damage. In the cases of chronic pain it is not surprising the patient feels fragile.

In the cases of acute pain and clear injury, the patient interprets pain as a signal for harm or damage. However, in Chronic Pain cases, pain may not be an indicator of harm or potential of damage. The term 'repetitive strain injury' defines the problem as being result of excessive mechanical use of a particular body part. Research to date supports the fact that there is really very little sound scientific or medical evidence to support such a simplistic mechanical interpretation. However, patients and many health care professionals will assume that some particular aspect of the patient's work or activity has caused the difficulty and therefore must be modified or avoided on a permanent basis. This assumption will not only lead to fear and avoidance behavior but many also contribute to a patient's anger, and thereby justifies to them that they have been permanently harmed by a required job task.

Patients with these syndromes will often believe that they are extremely fragile, both physically and emotionally, and that any form of stress must be totally avoided. These patients believe that they must avoid any physical, emotional or mental demands or their condition will worsen and they will never have the potential to recover.

2. Physician's Beliefs and Treatment

Patients often become 'medicalized'. They will, not surprisingly, be much more receptive to explanations that ground them in assumed underlying pathophysiology, rather than accepting explanations that suggest a wide range of factors, some of them 'psychological', or behavioral, which influence the course of their disability.

Patients unfortunately equate such multidisciplinary approaches with their understanding of their symptoms being 'all in their head'. Because patients are suffering enormously, and their lives have been seriously disrupted, they seek information that validates the extreme nature of their suffering and disability. We live in a culture that promotes the belief of 'psychological problems' being within a patient's capabilities to simply make vanish at will. For most of the population, psychological difficulties are deemed to be signs of weakness, of character flaws, and

personality faults. It is extremely difficult for family, patients, employers, insurers, and at times, health care professionals, to recognize that the distinctions between 'psychological' and 'physiological' are in fact artificial. Ultimately, everything that we would characterize in either of these categories has its basis in the biochemical functioning of the entire human body.

3. General Media Information

Information in the general media and information distributed by well-intended support groups can reinforce beliefs that are simplistic, inaccurate and very often inadvertently contribute to increasing the patient's degree of dysfunction.

4. Other Advocates and Lawyers

Well-meaning efforts of advocates and lawyers to have the patient's suffering recognized, and often compensated, can serve to further entrench the patient's beliefs that they are suffering from a severe, profoundly intractable condition. It is difficult for the patient when the advocate supports a diagnosis of permanent and total disability, which is deserving of financial compensation. It is also confusing for the patient when their advocate encourages a systematic return to the activities of normal daily living including re-entering the workforce.

It is to be emphasized that the role of such beliefs and belief systems is not simplistic in themselves. These patients do not 'will' themselves to become sick. It is certainly not the case that they can will themselves to feel better. It is also not the case that by reading and article about Chronic Fatigue Syndrome an individual will develop the symptoms of Chronic Fatigue Syndrome.

The following example explains possible interpretations of medical symptoms:

If an individual experienced chest pain and they have a family history of heart disease, combined with elevated cholesterol levels, lack of exercise and smoking, their interpretation of the meaning of their chest pain will likely be affected. This interpretation would likely invoke fear. This fear would increase autonomic arousal and muscle tension, which is likely to exacerbate pain. Consequently, these individuals would likely avoid activities that seem to be associated with their chest pain. These individuals would very likely seek medical care and be hesitant to accept simple reassurance from their physician. Their symptoms are not imagined and they have cause for concern and worry about their symptoms.

If, for example, a Tri-athlete who comes from a family whose members lived will into their 70's and 80's, is very active, has no history of heart problems, have recently 'passed' their annual physical examination and received excellent laboratory test results, they may simply attribute their chest pain to a pulled muscle and do nothing more. Even if they should become sufficiently worried enough and seek the advice of their physician, the physician's reassurance is likely to be extremely effective.

These examples demonstrate that the first individual discussed is most certainly not neurotic, and that the second individual could conceivably be ignoring a serious medical event.

The course of pain, and the associated interference with the individual's function and their resulting disability is likely to be very different as a consequence of their beliefs (perhaps un-stated and un-articulated, and even not very apparent to the patient) about the meaning of their symptoms.

5. Pattern of Activity and Sleep

A patient's activity and sleep patterns are important contributors to their disability. Patients who develop the habit of napping during the day as a response to their fatigue will have less efficient nighttime sleep, which results in escalating daytime fatigue. Consequently, this pattern increases the likelihood of continued daytime napping which promotes the reinforcement of the entire cycle.

Initially, efforts to eliminate daytime naps may be met with a period of increased fatigue, which is then accompanied by anxiety and apprehension. This particular pattern does not likely follow improved nighttime sleep, but must happen prior to it, thereby resulting in later improvement of the patient's disordered sleep and activity cycle.

6. Medications

Patients often rely upon analgesic medications, muscle relaxants, anti-inflammatory, hypnotic and anti-anxiety medication. It is to be noted that these medications are not routinely recommended to be prescribed for long-term usage, and have not yet been demonstrated to have efficacy in the treatment of chronic conditions. They can contribute to disturbed sleep patterns, increased fatigue, rebound pain, and other adverse physiologic effects. The behaviors of continuously relying upon medication will also have and impact on the manner in which that patient perceives their medical condition. Relying on medications also creates the expectation that the reduction or elimination of symptoms is the primary objective of any interventions. This applies particularly to the prescription of short-acting medications to patients with daily, long-term pain. The many trips to the pill bottles during the day reinforce dependency on medical treatments, and a re-active versus pro-active approach to pain management. This can be minimized by the usage of medications that require only once or twice daily usage in their long-acting forms.

7. Stimulants

Intake of stimulants such as caffeine or nicotine also impact upon a patient's symptoms, disturbs their sleep, increases muscle tension associated with pain and increases symptoms associated with autonomic arousal. Research indicates that smokers, for example, experience more low back pain than non-smokers. The use of alcohol, street drugs or other chemical substances either recreationally or in responds to physical and emotional symptoms, further contribute to overall dysfunction.

8. Stress

"Stress" can be characterized in various ways. The patient may have recently experienced increasing demands in the workplace. They may have failed to receive a

promotion or achieve an anticipated vocational success. Continued employment within their place of work may be insecure. Pressure may be escalated from the demands of family or marriage. Often patients are genuinely unaware of the degree to which these variables may impact on their well-being. Patients are usually more focused on physical symptomatology than they are on their emotional state.

9. Access to Disability Benefits

Access to disability benefits, access to desirable modified work duties, and avoidance of demanding or unsatisfying work also contributes to the degree of illness behaviors. Patients are not deliberately and consciously aware of these relationships and the significant role these factors play in their level of discomfort and disability.

10. Difficulties with Memory and Concentration

Patients, particularly those with a diagnosis of chronic fatigue syndrome or fibromyalgia, may experience significant difficulties with memory and concentration. These difficulties can in turn reinforce the patient's belief that there is a biologically based impairment of their brain and nervous system. Very often objective testing does not show evidence of neuro-congnitive compromise but may show evidence of significant anxiety, or depression, which interferes with their memory and concentration.

Various testing instruments measuring vocational aptitudes and interests are able to determine whether a patient was well suited to their prior employment.

11. Personality Factors

Personality assessments identify aspects of the individual's emotional and behavioral patterns of responding. The testing results are useful in understanding the patient's responses to their over-all situation.

THE CYCLE OF DISABILITY

(Where The Learning Begins)