

Psychological Factors in Fibromyalgia and Chronic Fatigue Syndrome: Implications in Counseling

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Abstract

The condition of Chronic Fatigue Syndrome (CFS) includes, fatigue and exhaustibility, muscle pain, muscle weakness, sore throat, fever, headache, impaired memory, concentration difficulties and sleep disorder. Whereas Fibromyalgia (FM) include symptoms such as aches, pain, stiffness and powerlessness in the muscles, fatigue, exhaustibility, headache, swelling, numbness, bowel problems, and sleeping difficulties. Sometimes, fibromyalgia patients report anxiety, tension, insomnia, and depressive mood, while some patients reported psychiatric disorders such as major depressive and anxiety disorders. Fibromyalgia (FM) often categorized, as a 'functional somatic syndrome', or sometimes, 'somatization disorder'. Both CFS and FM share the symptomatology to a large extent. Patients with fibromyalgia also meet the criteria for chronic fatigue syndrome whereas individuals with chronic fatigue syndrome also manifest concurrent fibromyalgia. In absence of any biomedical test or a stable physiological marker, researchers also conceptualize chronic fatigue syndrome as a psychiatric disorder, or manifestation of a psychiatric condition such as somatization disorder. The present paper is a review of the studies conducted in the area to understand the nature, clinical picture and causal factors for these conditions. It is also aimed to provide the information about the underlying mechanism of CFS and FM to counsellors to incorporate this body of knowledge while counselling with the similar kind of problems.

Keywords: Fibromyalgia, Chronic Fatigue Syndrome, Personality, Psychosomatic diseases.

Pain is a psychological experience, a universal form of human suffering, which pervasively reduces the quality of life and well-being. It is one of the most common reasons to seek medical care. Epidemiological reports about pain can vary because of methodology used and sample included, but surveys reveal that persisting pain is a great consideration for people of all ages. When one is unable to explain fatigue by another medical condition, it may characterize as chronic fatigue syndrome (CFS). CFS is characterized by chronic fatigue, persistent for at least six months accompanied by many rheumatologic, infectious and neuropsychiatric symptoms (Fukuda et al., 1994). The diagnosis of CFS included, fatigue and exhaustibility, muscle pain, muscle weakness, sore throat, fever, headache, impaired memory, concentration difficulties and sleep disorder (Komaroff, 1994). Common symptom found in population is the fatigue. According to some surveys, up to half of the general population reported fatigue (Pawlikowska et al., 1994).

Chronic fatigue syndrome (CFS) shares its symptomatology with fibromyalgia (FM) that affect women more in comparison to men (Komaroff, 1994). The diagnosis of FM includes symptoms such as aches, pain, stiffness and powerlessness in the muscles, fatigue, exhaustibility, headache, swelling, numbness, bowel problems, and sleeping difficulties (Wolfe et al., 1990). Sometimes, fibromyalgia patients report anxiety, tension, insomnia, and depressive mood, while some patients reported psychiatric disorders such as major depressive and anxiety disorders. Murakami and Kim (2013) found a tendency of dysautonomia in 87.5%; irritable gastrointestinal symptoms in 36%; typical irritable bowel syndrome in 48%; sleep disorders in 84 %, and tension headache, in 62%. Ninety percent of fibromyalgia patients are women, and 80% of the female patients with fibromyalgia reported difficulty with menstruation, menstrual irregularity, or amenorrhea. In addition to extreme generalized pain, chronic fatigue, slight fever, and pharyngitis symptoms are also regarded as primary symptoms of fibromyalgia.

Fibromyalgia (FM) is categorized as a ‘functional somatic syndrome’, or sometimes, ‘somatization disorder’, ‘fashionable diagnosis’, ‘idiopathic pain disorder’, ‘non-disease’, and ‘psychosomatic syndrome,’ (Kool et al., 2012). FM is neither an acute pain nor an organic disease but is described by chronic pain and functional impairment. People with FM often reported flippant attitudes from others, such as disbelief, stigmatization, lack of acceptance by their relatives, friends, coworkers, and the healthcare system, that consider them as ‘lazy’ or ‘attention seeking’ people.

Patients with fibromyalgia also meet the criteria for chronic fatigue syndrome whereas, individual with chronic fatigue syndrome also manifested concurrent fibromyalgia (Buchwald et al., 1994).

Epidemiology

Prevalence of CFS in the general adult population estimated to range from 0.007% to 2.8% (Jason et al., 1999) and from 0.006% to 3.0% in primary care or general practice (Reyes et al., 1997). CFS reported in children and adolescents but the rate was lower (Jordan et al., 1998). According to a survey of Japan College of Fibromyalgia investigation (2011) 85–90% of fibromyalgia patients were women, who developed this condition generally between the age of 40 and 50. According to reports from tertiary clinics, CFS affected mainly young, white and successful women (Lloyd et al., 1990). Most persons who diagnosed with chronic fatigue syndrome are 30–40 years of age, and surveys generally support a female preponderance (Jason et al., 1999). Community surveys have further found that white individuals have a lower risk of chronic fatigue syndrome, compared with Latinos (Jason et al., 1999), African Americans, and Native Americans (Steele et al., 1998). These unlike findings of the increased prevalence of chronic fatigue syndrome among whites in clinical populations are attributed to a biased health care access and utilization. CFS is found globally, as sporadic cases and occasional cluster outbreaks (Carruthers et al., 2003). It affects all groups and races. The prevalence has been

estimated to be 0.24–0.42% of the adult US population (Reyes et al., 2003) and 0.11–0.19% in the UK (Nacul et al., 2011).

Chronic Fatigue Syndrome, Fibromyalgia and Psychological Factors

There is no biomedical test for CFS. A stable physiological marker for chronic fatigue syndrome has yet not been identified, that is why, some researchers conceptualize chronic fatigue syndrome primarily as a psychiatric disorder. They believe that chronic fatigue syndrome is manifestation of a psychiatric condition such as somatization disorder (Shorter, 2008), hypochondriasis, major depression (Greenberg, 1990; Manu et al., 1988), or atypical depression (Abbey and Garfinkle, 1991).

Discussions about “the cause” of CFS or FM are often biased by the fact that insufficient distinction is made between etiological factors (i.e., why people become and stay ill) and pathogenesis (i.e., illness mechanisms called “pathophysiology” when physiological disturbances are concerned). The etiology of a condition involves three different dimensions, i.e., precipitating, vulnerability, and illness-perpetuating factors.

Precipitating Factors

Several investigated case-control studies have demonstrated that patients with fibromyalgia more often reported traumatic childhood experiences such as negligence, maltreatment or abuse as compared to medically ill or healthy controls (Van Houdenhove et al., 2013). Traumatic experiences may boost vulnerability to FM through diverse and interacting mechanisms, especially muscle hypertension, hyperventilation and sleep problems; hypothalamic-pituitary-adrenal (HPA-axis) dysfunction; low self-esteem, proneness to depression and abuse-related personality disorders (McLean et al. 2005; Weissbecker et al. 2006). In fact, numerous CFS/FM patients report a history of accumulating psychosocial stress, which may evolve in early childhood (Low et al., 2012). Research has shown that such negative life events— including

severe pain in early life may, partly through epigenetic mechanisms, increase the risk of stress-related illnesses in adulthood (Klengel et al., 2013).

Perpetuating Factors

Different studies have identified several factors that enhance and amplify the FM symptoms. The factors are denying their conditions and failure in adjustment to their functional limitations (Viane et al., 2003), low level of positive affect (Davis et al. 2005), increased negative affect (Geenen and Middendorp, 2006), uncertainty of illness (Reich et al. 2006), somatic hypervigilance (Carillo-de-la-Pena et al., 2006) and dysfunctional cognitive coping (Edwards et al., 2006). These factors may cause further to the persistence of the symptoms.

From a very different perspective, Wentz et al., (2004) pointed on life stress of FM patients by using qualitative method (strategies) of research, which is based on “grounded theory”. The authors concluded that fibromyalgia patients were characterized by the core characteristics of “an unprotected self,” pre-morbidly, which they overcompensated by intense activity or hypomanic helpfulness. From an etiologic perspective, studies regarding the role of unfavorable life events, factors related to personality and lifestyle, post-traumatic stress, and adverse childhood experiences are investigated. From a pathogenic point of view, neurobiological links between stress and FM symptoms, especially chronic pain and fatigue are highlighted.

Depression and FM/CFS

Persons with chronic fatigue syndrome manifested symptoms of current and lifetime mood disorders, mainly major depression compared to other chronically ill subjects or healthy control. 50%–75% of patients have a current or a lifetime history of major depression, respectively (Wood et al., 1991; Manu et al., 1989). Generalized anxiety disorder and somatoform disorder are also seen at a higher rate in chronic fatigue syndrome persons than in the general population (Fischler et al., 1997). In many cases, the mood or anxiety disorder precedes the onset of chronic

fatigue syndrome (Manu et al., 1989). A comparative study was done by Michielsen et al. (2006) aimed to assess the link between depression, attribution style and self-esteem among the patients of FM/Chronic Fatigue Syndrome, and found that an external attribution style usually not protect the CFS patients with a low self-esteem from depression. Most common co morbid psychiatric condition in people with chronic pain is major depression. Depression was found to be a significant determinant of pain-related disability (Hall et al., 2011). Although it leaves no doubt that CFS/FM and major depressive disorder (MDD) are distinct entities, the two syndromes partially overlap (Pae et al., 2008) this is particularly the case for atypical forms of depression (Jurueña & Cleare, 2007). Of note, a considerable proportion of MDD patients show painful symptoms (Bair et al., 2003) that may be based on common neurobiological underpinnings in pain and depression (Ohayon, 2009). Moreover, CFS/FM patients have frequent depressive co morbidity and a high lifetime prevalence of MDD (Nater et al., 2009). Some speculate that both conditions may be part of a spectrum of stress-related disorders with a possible common familial-genetic basis (Hudson et al., 2004). Furthermore, early-life stress seems to be a risk marker for MDD and CFS/FM (Heim et al., 2008). Studies suggested that MDD patients generally show increased reactivity of the hypothalamic-pituitary-adrenal (HPA) axis, whereas in CFS/FM patients, a tendency of reduced reactivity was found, particularly in those with a traumatic history (Heim et al., 2009). However, the opposite has also been reported (Van Den Eede et al., 2008).

Stress and Negative Life Events

“Stress” refers to a threat (or perceived threat) to the organisms, caused by a physical assault or a psychosocial burden. The threat activates the ‘stress response system’ (fight or flight) that is a kind of predetermined neuronal, hormonal and behavioral program. It has been seen that physical and/or emotional stressors (Van Houdenhove, 2002) characterize fibromyalgia patients’ history.

The precipitating role of stress in the condition was not found consistent in many studies. However, few studies have been carried out that led to negative results. It has been suggested that only “idiosyncratic” stressors with a strong personal significance may have an etiological role in these disorders (Pöyhiä et al., 2001; Van Houdenhove et al., 2002). Kivimäki et al., (2004), after examining the association between occupational stress and the incidence of newly diagnosed fibromyalgia found that high workload, low decision latitude, and bullying at work were associated with a risk for fibromyalgia. Onset of FM is related with different types of negative life events (Pöyhiä et al., 2001) as well as personally relevant daily hassles (Van Houdenhove et al., 2002). Fatigue, particularly in the morning, severe nightly sleep loss (often associated with a sleep–wake cycle reversal) are found to be associated with FM. Majer et al., (2007), have reported subtle disruptions in sleep architecture that may at least partially explain the overwhelming fatigue and pain in these patients (Togo et al., 2008). Similarly, electroencephalographic measures have shown disturbed sleep homeostasis (Decker et al., 2009) as well as increased heart rate and low heart rate variability during sleep, pointing to continuous nightly arousal that may be due to an abnormal sympathovagal balance (Staud, 2008). A recent clinical review (Palagini et al., 2016) summarized that 62% of FM patients also showed major depressive disorder, 11% bipolar disorder, 29% panic disorder, and 29% social phobia.

Emotional Processing and CFS/FM:

Alexithymia refers to the lack of awareness and difficulties in understanding, processing, and describing emotions. In Alexithymia, there is inability to discriminate between the emotions and physical sensations. It serves as a protective mechanism against depression by not internalizing emotions (Friedberg & Quick, 2007). One study found that CFS patients scored higher than the controls on the Toronto Alexithymia Scale (Johnson et al., 2001). On the other hand, tendency to make physical attributions is not associated with alexithymia (Friedberg & Quick, 2007). Rimes and Chalder, (2010) found in their study that people with CFS were more likely to view the experiencing and expression of negative feelings as unacceptable and a form of weakness.

Brooks et al., (2017) conducted a study to investigate the role of cognitive, behavioural and emotional processing as risk factors for CFS. Results indicated that perfectionism, self-sacrificial tendencies, unhelpful beliefs about emotions, and perceived stress may be found largely in CFS patients in comparison to healthy controls. Hambrook et al., (2011) found that, in comparison to control group, people with CFS were more likely to show themselves as more compliant externally while they may feel hostile inwardly. It is also likely that they put the needs of others more than their own. Individuals with CFS were manifested poorly at inferring their own emotions and at recognizing emotions in the faces of others than healthy controls. Rimes et al., (2016) reported that CFS subjects manifested inappropriate emotional expression in comparison to healthy controls (HC), despite having greater distress and higher autonomic arousal. Through a functional magnetic resonance imaging study Caseras et al., (2008) found patterns of brain activation in response to anxiety-provoking stimuli similar to that of overregulation of emotions in people with CFS.

Emotional suppression may exert a more direct and immediate impact on fatigue. Attempts to suppress emotionally arousing material can further increase the occurrence of those thoughts and associated distress (Trinder & Salkovskis, 1994). Suppression can have stressful and draining effect because it is very demanding and complex process requiring several other psychological tasks such as remembering to suppress, self-monitoring for signs of emotional expression and ongoing evaluation of success (Richards & Gross, 1999). According to Muraven and Baumeister (2000), self-control is similar to a muscle that becomes fatigued after use. In a call center, simulation experiment by Goldberg and Grandey (2007), explored that those participants who were instructed to hide their frustration during simulating an interaction with customers reported more post task exhaustion in comparison to those who were encouraged to be authentic. Patients with chronic pain when instructed to suppress their anger during a provocation task reported greater pain intensity after experimental sessions, than participants who were told they were free to manifest their feelings in their own way (Burns et al., 2008).

Psychological Trauma and Fibromyalgia

Psychological abuse, emotional, sexual, or abuse of physical nature exposed during childhood or adulthood, combat exposure, and undifferentiated abuse are included in Trauma. PTSD also requires exposure to a traumatic event. Afari et al., (2014) conducted a meta-analytic review to explore the relationship of psychological trauma and posttraumatic stress disorder (PTSD) with functional somatic syndromes including fibromyalgia, chronic pain, chronic fatigue, and irritable bowel syndrome. Results revealed that traumatic events are associated with an increased prevalence of functional somatic syndromes. A cohort study assessed the comorbidity of FM and PTSD in men following an intensive traumatic event (Amital et al., 2006). Findings confirmed the association of PTSD with FMS in male patients. There is high relation between degree and impact of these disorders. Amir et al. (1997) conducted a study to examine the relationship of posttraumatic stress disorder with fibromyalgia, quality of life, and functional impairment as compared with control subjects. Results revealed that the prevalence of fibromyalgia syndrome in the PTSD group was high in comparison to their control. PTSD patients reported more pain, reduced quality of life, higher functional impairment, psychological distress and reported more psychiatric symptoms i.e, depression, phobia, anxiety, paranoia, interpersonal sensitivity, hostility, and psychosis than controls. Kuch et al., (1991) found that, among 60 patients treated for fibromyalgia syndrome in a pain clinic, the prevalence of phobias and PTSD were detected in victims of minor road vehicle accidents in comparison to subjects with onset of pain due to other reasons. This group (Kuch et al., 1993) has repeatedly found that anxiety disorders (of which PTSD is one), are connected and interact with chronic pain. Some studies suggest that fibromyalgia syndrome patients report an increase in symptoms when emotionally stressed and that fibromyalgia syndrome patients report higher levels of daily hassles than other patient groups (Uveges et al., 1990).

Factors such as genetics, mental and physical health, stress, viral infections, personality as well as lifestyle are involved in the pathogenesis of fibromyalgia. These factors can further trigger dysfunction of neurological, endocrine, and immunological systems that may result in fibromyalgia. In 1995 Surawy et al., suggested that individual's interpretation of somatic symptoms as physical rather than psychological is important for the development and persistence of the disorder. They further suggested that this tendency could have been developed because of childhood experiences where the expression of negative emotion would have been met with unsympathetic or hostile responses (Dendy et al., 2001). CFS acts as a protective mechanism of the individual utilized in order to protect their self-esteem. Gradually, the individuals focus on the symptom of fatigue leads them try to control it.

Fibromyalgia and Personality

Personality plays important role in the way people perceive their environment and events. This also includes the experience of pain (Bucourt et al., 2017). Usually, the central sensitization mechanism in FM is conceptualized as representing an emotional dysregulation that results in a dysregulation of pain perception, mainly about its affective component (Ablin et al., 2008). Relationship between people with FM and personality disorders, mainly borderline or histrionic can be explained by emotional dysregulation (Bucourt et al., 2017). Like people with Borderline Personality Disorder, people with FM show a high level of psychopathology and childhood trauma (Lundberg, et al., 2009). Sansone et al., (2001) found that 18% of primary care patients with chronic pain were found to be positive for Borderline Personality Disorder. Other studies also pointed out towards a presence of Borderline Personality Disorder among FM patients (Uguz et al., 2010). Histrionic Personality Disorder was found in 1% of people with FM (Uguz et al., 2010). The personality of people with FM has been investigated using Minnesota Multiphasic Personality Inventory (MMPI), and findings revealed that most people with FM were emotional, irritable, hypochondriac, dependent, and perfectionist (Bucourt et al., 2017).

However, a review (Malin & Littlejohn, 2012) including 31 studies pointed out that it is not possible to define a ‘fibromyalgia personality’ or specific personality characteristics, that might influence the onset of FM. Nevertheless, the fact is many people with FM manifest personality characteristics that facilitate maladaptive responses to stressful situations, such as catastrophizing or poor coping technique.

Implications for Counselling

In chronic pain management, help providers generally adopt approaches where mind and the body are thought to be functioning separately and independently. Further, they ignore the role of psychological and social factors. However, one should be sensitive towards the patient’s subjective experience as well as psychological and other cognitive as well as affective processes, their sociocultural environment, past experiences, stress, trauma and other behavioral factors. There is a probability that symptoms of CFS/FM-patients can be heavily influenced by interplay of psychosocial and pathophysiological dysfunctions. This may further trigger complexities in the interaction of systems such as stress system, and the immune system and central pain mechanisms, which may result in disturbances in HPA axis. This may further lead to inappropriate immune activation, resulted in the development of chronic fatigue. As the review suggested there are many psychological factors, which are associated with FM/CFS. Counsellors should be very careful while interacting with individuals having pain and related other conditions towards the differential diagnosis in relation to FB/ CFS. This information will be quite helpful to conceptualize and understand the phenomena in a bio-psychosocial perspective and further in the planning for intervention strategies for chronic pain and related situation.

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