THE APPLICATION OF INTEGRAL MEDICINE IN THE TREATMENT OF MYALGIC ENCEPHALOMYELITIS/ CHRONIC FATIGUE SYNDROME

Alex Howard and Megan Arroll

ABSTRACT The Optimum Health Clinic, established in 2004 to help those with myalgic encephalomy-elitis/chronic fatigue syndrome (ME/CFS) find effective treatment, has used the Integral model, specifically the four quadrants, as a basis for understanding the development and maintenance of the condition. Here we present literature to highlight the application of Integral Medicine in this area in an effort to root our experiential knowledge in research evidence and also to illustrate to a wider audience the usefulness of this perspective in treating an illness of unknown etiology. We then consider the difficulties in applying this approach in the current healthcare environment and describe what The Optimum Health Clinic is doing to advance research and practice in an integral manner.

KEY WORDS chronic fatigue syndrome; myalgic encephalomyelitis; medicine; treatment; quadrants

Terms such as *holistic health*, *integrative health*, and *complementary medicine* seem to be used in almost every other breath by certain communities within the healthcare field. And yet, although the vast majority of practitioners have the best of intentions, very few seem to spend much time exploring beyond their own window of perception. For traditional practitioners of medicine, the approach is generally one of each practitioner seeking to become a master of one specialty, thus learning more and more about less and less. "Alternative" practitioners, although seeking to affect multiple perspectives, generally speaking still only work with one modality; however, the claim is that this single modality affects other systems. For example, an acupuncturist works with the energy meridians, which in turn influence physical, emotional, and spiritual well-being. However, taking illegal drugs can also affect us on all levels, but by no means is it an integrative practice! Approaching health and healing from any one perspective, as "holistic" as it may be, is still in and of itself a limited paradigm of medicine.

In this article, we explore the application of Ken Wilber's integral methodology (Wilber, 1995), specifically the four quadrants, to the treatment of myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS). This illness presents an especially fascinating case study, given that the lack of a clear etiology has intensified the search for an answer beyond traditional approaches, with a plethora of alternative perspectives cropping up over the past few decades. As with other chronic illnesses, we see different practitioners and schools of thought claiming to have the complete jigsaw, rather than recognizing they have just one piece of an infinitely more complex picture.

At The Optimum Health Clinic (TOHC), we have as passionately and openly as possible researched as many different approaches as we can in a quest to understand more clearly this group of illnesses, and to make available to patients the most comprehensive treatment map possible. Alex Howard, the founder of TOHC, and much of TOHC's administrative team have themselves been affected by ME/CFS, and so the clinic has

Correspondence: Alex Howard, The Optimum Health Clinic, Bickerton House, 25-27 Bickerton Road, London N19 5JT, United Kingdom. *E-mail*: alex@theoptimumhealthclinic.com.

upended the traditional approach of being emotionally distant from patients. Wilber states, "Put bluntly, not becoming emotionally involved in some ways could not only increase medical costs but significantly harm the patient" (as cited in Schlitz et al., 2004, p. 16), and this is something we feel extremely strongly about. It is the very fact that many of the clinic team have their own recovery stories that gives patients a sense of true empathy and the inspiration that it may be possible for their situation to change.

The Integral model has been critical to our evolving approach, from both understanding more about this complex but fascinating group of illnesses, to understanding symptom development and then constructing and integrating effective treatments. Integral Theory has also been critical at the level of organizational structure and innovation within this patient-led organization. In this article, we focus on the four quadrants and how we have used the Integral model in our work.

Background on ME/CFS

Definition and Diagnosis

Before beginning our discussion, we will briefly outline the definition, diagnosis, etiological models, and prognosis of ME/CFS. Currently, it is estimated that ME/CFS affects between 0.2% and 2.6% of the general population depending on the criteria used (Afari & Buchwald, 2003; Reid et al., 2000). To clarify why there are such differing prevalence estimates, it is useful to understand the history of ME/CFS.

Neurasthenia, a condition denoted by fatigue, pain, anxiety, and negative affect, can be traced back as far as the late 1800s (Beard, 1869). Myalgic encephalomyelitis, however, did not appear in the literature until a Lancet article in 1956 (Bond, 1956) reviewed a viral-type epidemic within the Royal Free Hospital in north London in 1955. At this time the condition was denoted as "benign" due to the lack of fatalities associated with the illness. Subsequently, in 1959, 14 occurrences of unexplained viral-like illness outbreaks from around the world were evaluated and it was concluded that a "new clinical entity" existed of unknown agent (Acheson, 1959). During the 1970s and 1980s, there was much debate (McEcedy & Beard, 1970; Ramsey, 1976) within the medical and research community as to whether these epidemics were due to a biological pathogen or the result of mass hysteria as no biological marker could be identified and the condition appeared to predominately affect women. Therefore, in 1988 a group of experts was convened by the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia, to review the evidence and agree on a case definition. Here the phrase *chronic fatigue syndrome* (CFS) was first proposed as a recommendation to replace that of myalgic encephalomyelitis, chronic Epstein-Barr virus syndrome, and other "post-viral fatigue syndromes" due to the lack of correlation between biological markers for viral antigens and symptomatology (Holmes et al., 1988). This new label reflected the prime clinical characteristic without alluding to an underlying physical etiology and, in turn, the definition was based upon signs and symptoms rather than diagnostic tests. Holmes and colleagues' (1988) criteria were updated by the CDC in 1994 (Fukuda et al., 1994) and are the most widely used guidelines in clinical research and practice. This definition has the prerequisite of at least six months severe fatigue of new and definite onset (not the result of ongoing exertion, not alleviated by rest), resulting in reduced levels of physical activity. There are also a series of minor complaints that must accompany the fatigue (cognitive impairment, sore throat, tender cervical or axillary lymph nodes, muscle pain, multi-joint pain, headaches of a new type, pattern, or severity at onset, unrefreshing sleep, or post-exertion malaise), with individuals needing to have experienced four or more symptoms to be diagnosed with CFS. More recently, a new working case definition was composed, known as the Canadian criteria (Carruthers et al., 2003), which contains more components (e.g., autonomic, neuroendocrine, or immune manifestations) in an attempt to represent ME/CFS as a specific condition, separate from other clinical disorders with overlapping symptoms. At the present time, the label ME/CFS is in use due to continuing debate over the condition's causation and as a recognition that CFS is not accepted by many patient support networks.

As we will explain later, the lack of a clear etiology has a significant impact on a patient's experience of the illness, social perspectives around the illness, and can also result in a lack of understanding and support on a very practical level such as the provision of necessary benefits and financial support. Although we consider the term ME/CFS far from satisfactory given the connotations that go with it—along with the fact that for some patients fatigue is their least distressing symptom—we will use it throughout this article due to it currently being the term of choice of researchers.

Etiological Models

As there are no consistent biomedical findings relating the cause of ME/CFS, various models have been proposed to explain the development of the condition. The psychoneuroimmunological (PNI) model (Ader, 2002) has as its basis the understanding that stressors interact and subsequently may impact the body's immune system and functioning (Kiecolt-Glaser & Glaser, 1989). Hence, PNI is concerned with the "psychological and social influences upon immune functions, and deals in part with the bidirectional endocrine and neural loops by which these systems are interconnected" (Spector & Arora, 1993, p. 223). As the immune system can be influenced and subsequently augmented or suppressed by external factors and psychological processes (Ader & Cohen, 1975), phenomena such as depression, sleep habits, ongoing stressful situations, and intrapersonal vulnerabilities can cause immunosuppression by reducing disease-fighting immune cells (Kaplan, 1991). Therefore, within this model an individual may be vulnerable by way of their genetic makeup or idiosyncratic coping styles which, coupled with a viral infection, may elicit chronic immune activation. This activation may then influence the body's other systems and produce a range of manifestations that may in turn lead an individual to maladaptive behavioral strategies (such as activity avoidance) and emotional responses (such as depressive affect) that feed back into the model and maintain the high level of immune activation, leaving the individual in a circle of ill health.

Another explanatory model is the biopsychosocial model (Adler, 2004; Johnson, 1998; Johnson et al., 1999), which posits that an initial trigger begins the illness process but it alone cannot account for the chronic nature of the condition. Therefore, subsequent factors must come into force to transform an acute event into a chronic illness. These can include personality variables (e.g., perfectionism) and illness beliefs (e.g., physical attribution) as well as social aspects such as a lack of emotional support and demographic variables. TOHC has its own understanding of the etiology of ME/CFS that, although similar to the biopsychosocial model in the sense that it categorizes ME/CFS as having predisposing factors, trigger events, and perpetuating factors, outlines a number of unique characteristics conceptualized in the form of subtypes that act as predisposing factors and "the maladaptive stress response" which may maintain the condition. The subtypes in the TOHC model are classified from a psychological perspective as Achiever, Helper, Anxiety, and Trauma subtypes (discussed later in this article) and from a physical perspective as detox, immune, and structural subtypes. In the case of gradual onset, these predisposing factors are alone enough to cause someone to become ill. However, in many cases there is also a trigger event (such as a virus, vaccination, major life trauma) that is effectively like the final straw that breaks the camel's back.

Perpetuating factors can result in effectively blocking someone from recovery. One example is what at TOHC is called "the maladaptive stress response," which is effectively a state of anxiety where the nervous system becomes constantly activated as a result of being ill. The TOHC team believes that for many people this state of anxiety is a natural result of suffering from a misunderstood and highly unpredictable illness. Patients often find themselves living in fear of relapse, unsupported by those around them, and facing a deeply uncertain future. However, the result of this sustained sympathetic arousal can put the body into a state of chronic stress—the exact opposite state it needs to be in to heal.

This sustained arousal may work as a system of cognitive loops whereby the stressor is first related to an outcome via classical or instrumental conditioning (Eriksen & Ursin, 2004; Ursin & Eriksen, 2004).

Subsequently, when stressors are perceived in the environment (e.g., high workload) and subsequent coping strategies do not result in satisfactory outcomes, a state of helplessness ("Even when I try to get on top of things, it makes no difference") and hopelessness ("I will never get all my work done") occurs and persistent high stress is developed. The sustained arousal may then interfere with other cognitive pathways, including those relating to bodily sensations, and affect the perception of somatic sensations. This cognitive activation of stress theory maintains that a sustained stress response does not allow an individual to rest and hence, as with any other physiological system that cannot reach homeostatic balance, pathology may result (Eriksen & Ursin, 2004; Ursin & Eriksen, 2004). Numerous biological studies support the view that ME/CFS may be related to sustained arousal and stress, specifically with regard to hypothalamic-pituitary-adrenal axis (HPA) functioning (see Van Den Eede et al. [2007] for a detailed review of the evidence). The HPA axis dysfunction found in ME/CFS denotes a persistent dysregulation of the neurobiological stress (Van Houdenhove et al., 2009) that may be a consequence of sustained arousal in the same manner that is evident in stress-related disorders (Fries et al., 2005). The TOHC model of predisposing factors, trigger events, and perpetuating factors is based on clinical observation at TOHC, but many of the core principles are also supported by academic research, as discussed below.

The Four Quadrants

The four quadrants show that any event in the manifest world can be interpreted from a first-person (or how I personally see and feel about the event), second-person (how others see the event), or third-person (the objective view of the event) perspective. By applying this model to anything, we can ensure that we see it from the most perspectives possible. Looking at health with a four-quadrant approach is like refocusing the camera lens and zooming out. This is the opposite of what conventional medicine does, where practitioners zoom in purely to the Upper-Right (UR) quadrant. Beyond this there is a further reductionism in conventional medi-

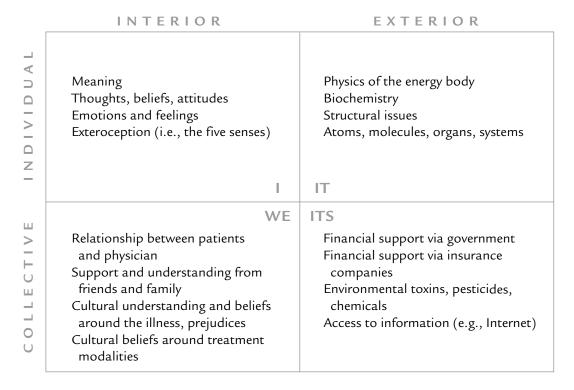


Figure 1. A four-quadrant approach to medicine.

cine, leading practitioners into specialization. Hence the human body is segmented into biological systems: immune, nervous, endocrine, and so on. As a result, the orthodox approach of specialization leads to learning more and more about less and less.

Applying the four quadrants to an individual's health, we ensure that we cover as many aspects of an illness as possible, to give us the best possible chance of developing an effective diagnosis, leading to effective treatments. In Figure 1, we can see some of the factors that fall into each of these areas. As Wilber has discussed, a major dilemma faced by healthcare practitioners is the question, "Where do we locate illness?" (Schlitz et al., 2004). With any illness it is impossible to draw a clear boundary around it, because it exists in all four quadrants. With ME/CFS, this could not be more accurate. For many illnesses, there is at least an understood and clearly defined pathogen that can be identified in the UR quadrant. Although medical practitioners and patients alike may pay lip service to the impact of the other three quadrants, the unspoken agreement is generally that it is an UR issue.

With ME/CFS we have a rather more complex issue, as although various UR factors have been established, there is no clear agreement or consistency between different patients. In some ways this has facilitated greater research into factors in the other quadrants in the hunt for a clear single cause, but the result of this search has certainly been to the untrained eye a deeply confusing picture. The application of the four quadrants provides some surprisingly elegant explanations of ME/CFS. Of course, understanding the causes is critical in opening up the possibilities of then developing effective treatments that honor each of the four quadrants.

The Upper-Right Quadrant

In the UR quadrant, at TOHC we look at a range of different factors. One area that research continues to focus on is whether ME/CFS is caused by an acute viral infection. As previously mentioned, numerous individuals with ME/CFS had antibodies to the Epstein-Barr virus in early studies, leading ME/CFS to be termed "chronic Epstein-Barr syndrome" (Jason et al., 2003). Hickie and colleagues (2006) demonstrated that ME/CFS developed in 11% of their study sample after a number of acute infections including Epstein-Barr, Q fever, and Ross River virus. In addition, the human herpes virus 6 (HHV-6) and 7 (HHV-7) has been investigated with regard to ME/CFS where individuals with ME/CFS had significantly higher rates of active HHV-6 and dual infection (HHV-6 + HHV-7) (Chapenko et al., 2006). Significant differences were also found in a number of immunological parameters between the groups, suggesting that the human herpes virus may be an important factor in the pathogenesis of ME/CFS and the reactivation of both strands of the virus could impact on immune function and result in chronic immune activation. In fact, in a sample of ME/CFS patients with neurocognitive symptomatology and high HHV-6 and Epstein-Barr virus titres, treatment with the anti-viral drug valganciclovir reduced symptom reports in 75% of the sample to such an extent that participants could return to work and/or full-time activities (Kogelnik et al., 2006).

More recently, there has been an association between the xenotropic murine leukemia virus-related virus (XMRV) and ME/CFS. The first study to exhibit this was conducted in the Whittemore Peterson Institute by Lombardi and colleagues (2009). The study detected XMRV DNA in 68 out of 101 (67%) patients as compared to 8 of 218 (3.7%) healthy controls; therefore, this retrovirus has been suggested as a contributing factor in the pathogenesis of ME/CFS. These findings, however, have not been replicated in subsequent studies (Groom et al., 2010; Hong et al., 2010), suggesting that the picture regarding this viral infection and its relationship with ME/CFS is unclear. Despite the inconsistencies in the research, what does seem clear is that there are viral abnormalities in ME/CFS. From the TOHC perspective, critical for the next stage of research is the recognition and definition of subgroups in ME/CFS.

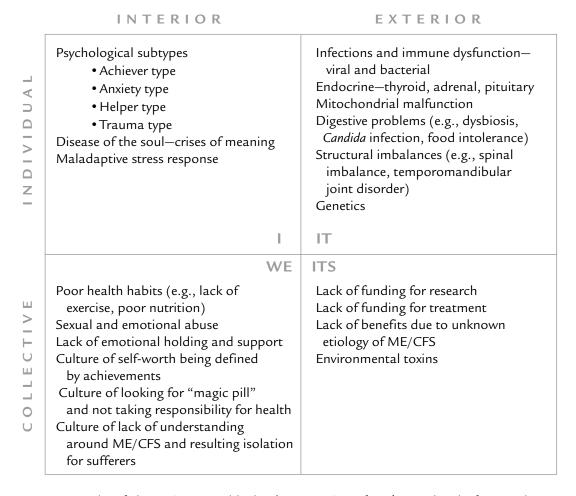


Figure 2. Examples of The Optimum Health Clinic's perspectives of ME/CFS within the four quadrants.

The Upper-Left Quadrant

The role of psychological/emotional factors in ME/CFS has been very strongly resisted by patient groups. We believe this is with very good reason. The lack of a clear UR marker has led to many orthodox medical practitioners concluding that the cause must therefore be in the Upper-Left (UL) quadrant. Those affected by ME/CFS in its varying degrees suffer greatly, and to be told that their illness "is all in their head" is perceived by many support groups as a form of abuse. The impact on the remaining three quadrants can be dramatic. At TOHC, we have observed that this results in significantly increased anxiety (UL), withdrawal of emotional holding and understanding (Lower-Left [LL] quadrant), and in the Lower-Right (LR) quadrant the consequence is minimal financial and practical support for patients, resulting in individuals often having to just push themselves harder to try and survive.

This lack of understanding does not mean there are not UL components to ME/CFS. At TOHC, we have developed a clear model of what we believe some of the UL factors involved in ME/CFS to be, partly based on certain personality types within the Enneagram model. We refer to them as "energy-depleting psychologies," which are effectively ways of approaching the world that tend to burn down resources faster than they can be replenished. The four energy-depleting psychologies are the Achiever type, Helper type, Anxiety type, and Trauma type, which we will now discuss.

Achiever types constantly push themselves to do and be more than they are currently capable of. They are characterized by an inability to "be in the moment" and enjoy "what is," instead always focusing on

how they can be and do more. This is similar to the trait of "action proneness," a construct defined as a type of hyperactivity, which leads an individual to be driven toward direct action and achievement and which has been shown to be elevated in participants with ME/CFS as compared to individuals with chronic pain, chronic organic conditions, and neurotic disorders (Van Houdenhove et al., 1995). Significant differences were observed between the ME/CFS group and the latter two groups, although comparable degrees of action proneness were found between the ME/CFS and the chronic pain group, intimating the possibility of similar illness development in these two medically unexplained conditions. Additionally, individuals with ME/CFS were found to rate themselves as being more "hard-driving" before illness onset than control subjects (Lewis et al., 1994).

Helper types tend to constantly place the needs and wants of others above their own. They value themselves by their helping and supporting of others, and although in the eyes of society might be perceived as a "good person," are often giving due to an internal drive that needs to be fulfilled. In a qualitative study investigating the daily worries of those with ME/CFS, it was found that the participants reported being very concerned with the well-being of others and felt a great deal of guilt at their inability to carry out as many "helping" tasks as they had done before the onset of their illness (Arroll et al., 2010). Additionally, when discussing pre-onset, the respondents often reported a high level of caregiving roles including looking after elderly parents, childcare, and generally feeling responsible for others' well-being.

Anxiety types have an internal sense of fear, danger, and threat. They deal with this either by being outwardly fearful, or by becoming the opposite, and constantly try to convince themselves and others they are not afraid. Under the surface is an ongoing sense of things "not being OK" and the world not being able to support them. As previously stated, the effects of constant anxiety can induce a state of sustained physiological arousal that may perpetuate symptomatology in ME/CFS.

Trauma types can either have suffered a major event, such as a natural disaster, or some kind of physical, mental, emotional or sexual abuse, or what is known as "developmental trauma" where there is no single event. Generally, developmental trauma victims have grown up in an "unheld and unsupported environment"—these kinds of trauma are not generally digested without professional assistance, and therefore take a long-term toll on the body when not healthily worked through. Studies investigating major life events (e.g., moving house, marriage, divorce, change of employment, death of a loved one) found that those with ME/CFS reported significantly more negative life events prior to illness onset as compared with control subjects (Hatcher & House, 2003) and those with comparable disorders (Sundbom et al., 2002).

The Lower-Left Quadrant

Physical and sexual abuse has been associated with incidence of ME/CFS.² In a sample of nearly 800 ME/CFS sufferers, sexual abuse in childhood significantly predicted fatigue as did the total number of abusive events (Taylor & Jason, 2002). In comparison with fatiguing organic disorders (rheumatoid arthritis [RA] and multiple sclerosis [MS]), it was found that individuals with the medically unexplained conditions of ME/CFS and fibromyalgia (FM) had higher rates of emotional abuse, emotional neglect, and physical abuse, although this trend did not hold true for sexual abuse (Van Houdenhove et al., 2001). A sub-group of the ME/CFS/FM patients endured this abuse throughout their lives; the abuse did not occur as isolated incidents and was most often committed by close family members or partners.

As mentioned earlier, there has been much controversy surrounding the label of ME/CFS. This reflects not only the current state of research in the area (i.e., that we still do not know the precise etiology of the illness), but also wider social and cultural attitudes toward the condition. In fact, a study investigating factors influential in the prognosis of ME/CFS found that a label of post-viral fatigue syndrome (PVFS) rather than myalgic encephalomyelitis was found to be beneficial to patients (Hamilton et al., 2005). This may be associated with the perceived stigma that individuals with ME/CFS experience from many areas of society, includ-

ing close social links (family and friends), the medical community, and Western ideas regarding health and illness and what it is to be "ill" (Arroll & Senior, 2008; Asbring & Naervaenen, 2002). Even in comparisons with other conditions of unknown origin (FM and Irritable Bowel Syndrome), those with ME/CFS felt they experienced more stigma in relation to their disorder. Hence, there are numerous "macro"-level influences (i.e., large-scale factors such as culture, political environment, societal norms, etc.) that are involved in, and unique to, the illness experiences of those with ME/CFS.

The Lower-Right Quadrant

Environmental influences may play a role in the development and perpetuation of ME/CFS. For instance, the influence of pesticide exposure has been illustrated in a study which evaluated a consecutive series of 26 patients who developed ME/CFS after exposure (Fernandez-Sola et al., 2005). In fact, links have been made between Multiple Chemical Sensitivity (MCS), Gulf War Syndrome, and ME/CFS whereby these common illnesses can occur following exposure to complex and multiple biological sources and can be perpetuated via poor coping strategies and life stress (Fiedler et al., 2000; Nicolson et al., 2003).

A topic very pertinent to the maintenance of ME/CFS is associated with general life stress following the impact of the condition. In a review of 13 published studies investigating the extent of work-related impairment of those with ME/CFS in the United Kingdom, unemployment levels due to ME/CFS were found to range from 35% to 69%, with little change over time (Taylor & Kielhofner, 2005). When looking at job loss specifically due to ME/CFS, only six studies in the review included this measure; within these six papers rates varied from 26% to 89% of individuals in the study samples that had lost their positions because of the limitations that ME/CFS had placed on their lives. Specific performance work-related difficulties leading to these rates included problems with transportation, meeting deadlines, committing to a set schedule and attendance (Schweitzer et al., 1995). The lack of financial security resulting from unemployment acts to heighten stress (and maintain a state of sustained arousal); therefore, this LR factor can directly impact the UR and UL quadrants and exacerbate illness experience. In fact, individuals with ME/CFS have stated that they believe the absence of financial security is a primary, and negative, influence on their recovery (Arroll et al., 2010).

Related to this, and another pertinent aspect of the LR quadrant, are the changes in the benefits system that are currently being rolled out by the present U.K. government. The former Incapacity Benefit has been abolished and now those with chronic, life-restricting conditions need to apply for the new Employment and Support Allowance. A full discussion of the scope and impact of these changes is outside the realm of this article but early indications are that the new points-based Work and Capability Assessment, which will evaluate whether an individual will receive financial support, may not be reliable when faced with fluctuating illnesses such as ME/CFS (Lord Kirkwood, 2011). This, in addition to the cutbacks in specialist services in the National Health Service which are affecting those with ME/CFS (Northern Ireland's only clinic at Belfast City Hospital and the two clinics within Tameside and Glossop Primary Care Trust have been cut (ME Association, 2009, 2010), represents a double-blow to the care and security of individuals with ME/CFS.

TOHC and the Integral Model: A Case Study

To illustrate our integral approach in action, we now present a case study that demonstrates TOHC's practices of working with an individual with ME/CFS. This case was selected due to its illustrative content but it must be noted that for some people their treatment path is much simpler and shorter, and for other people we may need to go into more depth in certain areas (such as mitochondrial function). However, we believe that this case clearly displays the importance of an integral framework when working with a complex illness such as ME/CFS.

Susan's illness started with cold-like symptoms, swollen glands, and debilitating fatigue.³ Initially she

tried to push through it, but within a few days found herself almost bedbound. Her GP conducted the usual tests to eliminate other possible causes, but as the symptoms did not pass, diagnosed her with ME. Because there is very little on offer on the National Health Service for ME, Susan's general practitioner, although sympathetic and understanding, was unable to offer anything in terms of treatment.

Over the next six months, Susan paced herself and rested, and gradually improved to the point she thought she might be getting close to going back to work part-time. She then had her first relapse. It took six months to improve back to a low level of functioning and Susan then had another relapse that took a year to get through. In this period, there were days when she could not move her arms properly, needed help getting upstairs, and could not hold a book because of the pain in her wrists. It was at this point she contacted TOHC.

As discussed throughout this article, TOHC works with ME using the Integral framework. Susan was very fortunate in having support and understanding from her husband and two children (LL), and also was able to afford treatment with the clinic (LR). We find this makes a significant difference, and it is such patients that we often find are able to make faster progress dealing with the upper quadrants. Susan had in her own time started to come to a place of acceptance of her illness (UL), which we find is also very important. We make a very clear distinction between acceptance and giving in; patients must accept their situation, otherwise the resistance against it and resultant denial leads to pushing beyond current limitations, nearly always resulting in relapse. Acceptance, however, does not mean giving in and believing things will remain the same.

Susan underwent a comprehensive investigation with a nutritionist at TOHC. This involved Susan learning about dietary changes to ensure that she was getting the right balance of protein, carbohydrates, and fats and eating foods that were rich in vitamins and minerals. She cut out coffee, refined foods, and bread and increased her protein intake (UR). She also repeated a battery of standard physiologic tests, which were subsequently analyzed by her nutritionist using narrower reference ranges developed at TOHC. Among other findings, these results demonstrated that Susan had sub-optimal levels of vitamin B₁₂ and folic acid. Susan was therefore recommended an easily absorbable supplement of these nutrients for a period of time to correct her lowered levels.

In addition to analyzing test results, TOHC also recommends a range of private functional medicine tests. The tests recommended for each patient are determined by their presenting symptoms and are carried out in a systematic order. In Susan's case, she presented primarily with symptoms of adrenal-type fatigue. She was therefore advised to carry out an adrenal stress profile test, which measures salivary cortisol and DHEA levels at four intervals during the day. The results of this suggested a malfunctioning of her hypothalamic adrenal feedback system and she subsequently followed adrenal protocols, with supplements to support her hypothalamic-pituitary-adrenal axis, for the following 18 months. During this time she repeated the adrenal stress profile test, which demonstrated that her cortisol levels were normalizing.

At the start of her treatment Susan also presented with symptoms of mitochondrial malfunction, including delayed post-exertion fatigue, heart palpitations and arrhythmia, and muscle pain and weakness. However, as she followed her adrenal protocol these symptoms subsided and it was not necessary to explore this further with an ATP-profile mitochondria test. However, she still felt particularly fatigued in the morning, often taking until lunchtime before she was able to think clearly. This, together with other thyroid-related symptoms, led her nutritionist to recommend a total thyroid screening. The results indicated sub-clinical low thyroid function; therefore she undertook a supplement protocol, including thyroid-specific nutrients and glandulars to correct her thyroid function.

While carrying out the nutrition protocols, Susan's nutritionist also worked on improving her digestion and sleep. The supplements to help her sleep, as well as TOHC's "Sleep Inducer" and "Learn to Relax" audio CDs, helped to improve the problem, but did not resolve it. Susan therefore underwent a urinary amino acid analysis that indicated she had a low level of tryptophan, the precursor amino acid for melatonin synthesis. This was corrected with 5-HTP supplementation and her sleep problems subsided.

In addition to work with the nutrition department, Susan undertook TOHC's "Telephone Treatment Programme" which involves a series of sessions with one of the psychology practitioners at the clinic learning a series of tools to calm what the clinic calls "the maladaptive stress response." These sessions can also be done by videoconferencing (e.g., Skype), which works very well for both patients too ill to travel or who are based internationally. The tools used are based on techniques from neurolinguistic programming (NLP), hypnotherapy, life coaching, and various other forms of brief therapy. The psychology department also works with any deeper emotional factors that may be relevant to a patient's situation (UL). These can be pre-disposing factors (such as trauma), but can often also be the result of suffering from such a poorly understood illness.

It is also critical in TOHC's approach to deal with underlying psychology patterns, such as Achiever or Helper tendencies. Accordingly, the clinic offers an online support site, www.SecretsToRecovery.com, that includes training sessions from the clinic team and a detailed archive of in-depth interviews about recoveries (which patients find an immense support between consultations). This service has been a key way for the clinic to make treatment more affordable (LR) and help with the isolation experienced by hearing stories of healing and recovery (LL).

Over a period of two years and five months, Susan made considerable improvement:

I am now back at work three days a week—my choice, although I am considering a career change (if only I could decide what I want to do!). I have started running—well, it's more of a lopsided jog when no one is looking!—and I am able to go on holiday and have a social life without worrying if I'll be able to finish what I've started. I am a very lucky woman! (personal communication, September 16, 2011)

Challenges of Applying the Four-Quadrant Approach

As stated, applying the four quadrants to TOHC has been of immense value. However, it has not been without its challenges, many of which we believe may be shared by others in the integral health community.

People Who Want "The Magic Pill"

In the early days of TOHC, one of the great difficulties in using an integrally informed approach to treating ME/CFS was explaining the concept in a way that people could grasp. There is very much still a culture when it comes to medicine that people are looking for "the magic pill" and are often genuinely shocked by the experience of suffering from an illness to which there is no immediate "cure." Most sufferers fairly quickly turn away from traditional medicine, after being met by often two rather contradictory views: 1) "There is nothing wrong with you," or 2) "You are suffering from an incurable illness and the best you can hope for is symptom management." But, as people turn toward complementary or alternative medicine, on some level they are generally still looking for a "magic pill"—they are just hoping for a natural one rather than a chemically based one. We see this as not only a challenge in working with individual patients but also as a cultural norm that is entrenched in Western societies. The acknowledgement that good health is associated with investment in terms of time, money, and effort is not an idea that is generally accepted by a "quick-fix" culture.

Therefore, to explain to already skeptical and vulnerable patients that they require an approach working on multiple levels is not an easy task. In the early days of the clinic, we noticed that several times a situation occurred where a practitioner or group of practitioners claimed to have "the answer" to ME/CFS. They would gain a certain amount of media attention, and often have some genuinely inspiring and interesting case studies. But the result would be that large numbers of people would try and engage in that treatment with the hope they might have found the answer, only to discover that it did not work for them. Apart from the obvi-

ous disappointment and increased skepticism this led to in patients, this was also very frustrating for TOHC as an organization, as although we felt we had a more integral approach, people often wanted to believe in the magic bullet even when logic told them otherwise. Over the years, as people have adopted the Internet more and more for health research, it has become easier for patients to explore different approaches. In turn, and fairly rapidly, enough negative testimonials build about misguided approaches so that 95% success rate claims become less and less credible. Additionally, by using the Internet to release significant amounts of information on many different aspects of our approach, we have been able to gain increased recognition for what we have always believed to be an effective, integrally informed paradigm.

An Integral Approach Demands More of Practitioners

Another challenge of an integrally informed approach is that it demands a significant amount of effort from practitioners. Medical doctors go through a huge learning curve in medical school, and like any profession, need a significant amount of time "on the job" to really find their way and their confidence. To then set all of this training aside and to go and do a large amount of further training in an entirely different paradigm, which will cost further investment and often be met by skepticism and resistance from colleagues, is not an easy situation.

For practitioners who have trained in complementary medicine, simply obtaining clients is no easy task. Whereas for a traditional medical doctor jobs are fairly plentiful, the complementary practitioner often faces the trials and tribulations of being self-employed and trying to build a business. Even if the desire is there to treat patients using a broader map, the opportunity is often very limited. And, even if the opportunity presents itself, to really have a comprehensive knowledge of different approaches and to work with other practitioners is dependent upon having the time to invest in ongoing learning and development.

One of the great benefits of organizations such as TOHC is that practitioners have the opportunity to focus on what they do best—researching and learning, consulting with patients, and dialoguing with other practitioners. However, building an organization with these possibilities costs a significant sum of money, and has been dependent upon a relentless determination on the part of the TOHC team. There is also the challenge for practitioners working in such a demanding environment where they must prevent their own emotional and physical burnout. As ironic as it may sound, continually dealing with patients with extremely difficult life situations, while staying emotionally engaged and challenging yourself to be the best you can be, is immensely draining. At TOHC we have learned to work very hard to take care of our practitioners, to make sure they are engaged in maintaining their own optimum health and well-being, and to provide the ongoing support needed to treat a patient group in such distressing and difficult situations.

Access to Research Funding

It is regularly noted that approaches used by TOHC are not supported by research. Although the interventions used are based on significant clinical experience, consultation of relevant research literature, and regular discussion and comparison of cases, the academic evidence base is indeed at times lacking. The response from outsiders, especially orthodox medical practitioners, is to say that the approach is ineffective because there is an inadequate research base. We are always quick to respond by saying that "a lack of research is not the same as research demonstrating something is ineffective." Quality research is dependent on significant funding and parties interested in carrying out the research. With much of the research funding for pharmaceutical interventions funded by heavily profitable and well-resourced pharmaceutical companies, it leaves the question of where such funding will come for approaches such as those used by TOHC. There is also a worrying trend in the United Kingdom that due to key decision makers in the ME/CFS research world holding a belief that ME/CFS is of a purely UL (i.e., psychiatric) nature, research money only goes into looking at approaches

in this area to corroborate what we already know (i.e., that these approaches can be helpful in some cases, although often in a limited way).

The lack of research carried out by complementary health practitioners has without question limited the availability of integral approaches to the mainstream population due to the funding restrictions on techniques without a pre-existing evidence base. However, within Europe there also appears to be a general move toward aggressive regulation of practitioners, making research even more important. From European Union legislation banning the use of herbal products, to the recent changes in what marketing material can be used on websites insisted on by the Advertising Standards Agency (ASA) in the United Kingdom, the need for high-quality research is now paramount. We are not questioning the necessity for increased regulation of certain practices, as we fully agree that overzealous practitioners have been making unreasonable claims for treatments for too long. However, to try and restrict all treatments to those that have been evaluated, and therefore given funding, raises the very important question of how innovation will ever occur if practitioners can only practice what has already been tried and tested. This is particularly key for illnesses such as ME/CFS where the current traditional answers are far from satisfactory.

At TOHC, we are fortunate enough to be in a position where we have a sizeable client base keen to support research and a practitioner team desperate to see it happen. To support this, we have recently taken on a full-time Research Director and forged links with universities and made a pledge to invest 50% of all profits from the clinic over the next two years to provide funding for this department. In addition, we established a registered charity in the United Kingdom, The Optimum Health Clinic Foundation, to raise funds for research into "complementary treatments" such as those used by TOHC. Funding from this charity will only be for studies in the public interest (as opposed to TOHC clinical trials and studies specifically on its treatment approaches that have a commercial interest for TOHC). Over time, we hope that this will become a way to move research in these areas forward and break the "chicken and egg" cycle of evidence-based treatment practice.

What Does the Future Hold for Integral Practice?

Using the four quadrants in the treatment of ME/CFS has significantly improved our understanding and helped us identify areas we might otherwise have missed. Additionally, understanding the importance of the lower quadrants, which are often overlooked in healthcare settings, has been critical. In launching a social networking site for patients to interact with each other (many are too ill to travel, so meeting online works especially well) and address issues in the LL, we have received considerable feedback that this has reduced the sense of isolation. Understanding the impact of the LR has inspired us to drive forward the research base (through our own internal funding and establishment of our charity) with the hope that over time more funding will become available for not only research, but also treatment in this area and for financial support for people affected.

We are excited about the future of those affected by ME/CFS. We are confident that significant break-throughs are still to come in understanding the impact of the UR, along with hopefully increasingly effective treatment approaches. We find that our treatment paradigm is of significant help to a large number of those we work with and for some people our approach seems to hold most of the answers. For others, the picture of their illness can be immensely complicated and with those patients we do the best we can to all learn together. We are especially excited to see further advances in research into ME/CFS and observe medical and complementary practitioners working more closely together, while hopefully also actively involving researchers with an integral awareness.

Added to this, one of our hopes for this article is that it will give other professionals in the field an insight into our approach and methodologies. We are all too aware that much of our own protocol development has come through having a team of ten dedicated practitioners constantly sharing ideas in informal discussions and structured departmental meetings. Few practitioners of integrative medicine have the luxury of such

exchanges, and we are keen to "open the doors" and encourage and stimulate discussion beyond just our own practitioner teams. With the hope of opening our knowledge to a wider audience, beyond our practitioner level trainings in hypnotherapy, NLP, life coaching, and the emotional freedom technique, we are also in the process of developing master classes for experienced practitioners in the approaches we use, especially on the nutrition side. We feel that an open-door policy on protocol development, rather than a proprietary and controlling attitude, is for not only the benefit of patients, but also supports our own goal toward creating the most comprehensive and ultimately effective treatment methodology available.

We also offer a significant amount of content on our YouTube channel (www.youtube.com/freedom-fromme), giving our thoughts and perspectives on various areas of ME/CFS. With the development of our Research Department and launching of our Medical Department in November 2011, we are also excited about the opportunity to develop useful resources for other practitioners and researchers in the area. This will initially include proactive "GP liaison," which will seek to work with patients' general practitioners through a detailed "GP Pack" outlining TOHC's approach. We will also provide workshops and introductory courses on our approach that health practitioners can use as part of their own continuing professional development. In additional, we are hopeful that the publication of our evaluation study will open discussion further, as well as provide the beginnings of an evidence base for our approach. We believe that for Integral Medicine to move forward, the "I" needs to become "We," and if we can work together on what we have in common, our shared vision of reducing the suffering of those whose lives have been, at times, unbearably scarred by illness can take a great leap forward. This would truly be Integral Medicine in practice.

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NOTES

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¹ For more information on The Optimum Health Clinic, please visit www.theoptimumhealthclinic.com.

² Although we have placed abuse in the LL quadrant, we accept that it can be viewed from multiple quadrants (e.g., the results of abuse can affect the UL [emotional wounds] and the UR [physical wounds]). Ultimately, all of the factors discussed will interact with others and therefore our positioning of individual aspects in the four quadrants is for ease of presentation, but it is appreciated that our four-quadrant approach is not a purely taxonomic system.

³A pseudonym is used for this case study.

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A. HOWARD & M. ARROLL

ALEX HOWARD is the founder and CEO of The Optimum Health Clinic. The clinic was founded in 2004 soon after the publication of a book about his own recovery from ME/CFS, Why Me? My Journey from ME to Health and Happiness. During his recovery, Alex tried numerous different healing modalities, and was heavily influenced by the work of Ken Wilber, along with personally being deeply inspired by his book Grace and Grit (Shambhala, 2000). Alex's vision was to create an integrally informed clinic, where practitioners and patients shared a commitment to exploring all possible symptom-related factors and in an attitude of "constant and never-ending" improvement. Alex has a B.Sc. (Hons) in psychology from University of Wales, is a keen student of Integral Theory, and has also been a student of the Diamond Approach for seven years.

MEGAN ARROLL, Ph.D., is a research fellow at the University of East London, where she is a member of the Chronic Illness Research Team. She received her doctorate from the University of Surrey for her multi-methodology work in ME/CFS. Megan specializes in medically unexplained conditions, and has worked with individuals with ME/CFS for more than 10 years. She has published both quantitative and qualitative articles in this area, such as "Individuals' Experience of Chronic Fatigue Syndrome/Myalgic Encephalomyelitis: An Interpretative Phenomenological Analysis" in *Psychology and Health* and "Symptom Typology and Sub-grouping in Chronic Fatigue Syndrome/Myalgic Encephalomyelitis" in the *Bulletin of the International Association of CFS/ME*.