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Psychology of medically unexplained symptoms: A practical review

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Abstract: Medically unexplained symptoms (MUS) or functional neurological symptoms (FNS) are commonly seen in the medical and rehabilitation settings. Clinicians often tend to describe patients with MUS as the “most difficult to help”. This practical review discusses epidemiology, clinical presentations, assessment and diagnosis of these psychiatric and neurological conditions, and summarises psychological models that have been linked to the development and maintenance of MUS. The final purpose of the present paper was to review the current literature in the treatment on the management and treatment of MUS. It concludes that future research should focus on a more integrated treatment approach which addresses various biological, psychological and social factors contributing to the onset and maintenance of these debilitating conditions.

Subjects: Behavioral Sciences; Neurology; Psychiatry & Clinical Psychology - Adult; Rehabilitation Medicine

Keywords: medically unexplained symptoms; functional disorders; cognitive models; cognitive-behaviour therapy



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PUBLIC INTEREST STATEMENT

The term “medically unexplained symptoms” (or “functional’ symptoms”) is used when patients complain about some physical symptoms such as pain, fatigue, weakness, tingling and sensory disturbances, gait disturbances, blackouts and limb paralysis, but doctors cannot find any disease or problem with the body. We have to remember that these physical complaints are not faked and can affect how people function on a daily basis. Psychological problems often play a role in the development and maintenance of these apparently medical symptoms. In this paper, we reviewed psychological models that can explain these medically unexplained symptoms and discussed psychological interventions such as cognitive-behavioural therapy (CBT) to the treatment of these symptoms. CBT aims to help patients manage their symptoms by enabling them to understand links between their symptoms, worries, feelings and behaviour. Patients are taught some cognitive and behavioural skills, so they can manage their bodily symptoms.

1. Introduction

Medically unexplained symptoms (MUS) or functional symptoms are defined as “physical symptoms persisting for more than several weeks and for which adequate medical examination has not revealed a condition that adequately explains the symptoms” (Olde Hartman et al., 2013). It has been suggested that a large proportion (30%) of patients seen in neurology clinics are considered as unexplained by “organic” aetiology or “functional” symptoms (Kroenke, 2003). In a recent study, Steinbrecher, Koerber, Frieser, and Hiller (2011) found that MSU made up two-thirds of all reported symptoms with women, younger persons and non-native speakers having the highest rates in primary care.

Within neurology, one study found that 9% of 4,470 inpatient episodes were provoked by psychogenic disorders (Lempert, Dieterich, & Huppert, 1990). In another study, it is reported that 11% of 300 consecutive neurological outpatient presentations were “not at all explained” by organic disease, 19% “somewhat explained”, 27% “largely explained” and 43% “completely explained” (Carson et al., 2000). In a prospective cohort study of patients referred from primary care to National Health Service neurology clinics in Scotland, UK, one-third of new outpatients at neurology clinics had symptoms that a consultant neurologist regarded as unexplained by organic disease (Stone et al., 2009). At 18 months follow-up, new diagnoses that explained the original symptoms rarely emerged in this study. The researchers concluded that whilst the diagnoses of “symptoms unexplained by organic disease” must continue to be made with care, their data suggest that serious diagnostic change after an initial clinical assessment is unusual (Stone et al., 2009). Medically unexplained stroke-like presentations consist of 1.6% of all stroke presentations (Nazir, Lees, & Bone, 2005).

MUS are associated with higher levels of disability and personal distress, and patients with these conditions receive more disability benefits than patients with neurological conditions (Carson et al., 2011; David & Nicholson, 2012; Kirmayer, Groleau, Looper, & Dao, 2004). MUS are associated with 20–50% more outpatient costs (Reid, Wessely, Crayford, & Hotopf, 2001) and 30% more hospitalisation (Fink, 1992). It is estimated that annual health care costs of MUS in UK exceed £3.1 billion and the total costs are estimated to be £18 billion (Birmingham, Cohen, Hague, & Parsonage, 2010).

The epidemiological studies have shown that MUS are not limited to adult population and that MUS are extremely common in younger population (see Eminson, 2007 for a review). Multiple symptoms or losses of function cause significant disabilities in children and adolescents; however, the long-term outcomes remain unclear.

2. Clinical presentations

Patients with MUS are not homogenous and may have diverse symptomatic presentations. Evidence suggests that MUS exist on a continuum which ranges from patients with single, transient and relatively mild symptoms to those with multiple somatic, cognitive, behavioural and emotional symptoms which are chronic and extremely debilitating unexplained complaints (Brown, 2007).

Many patients with MUS present with somatic symptoms such as pain, fatigue, headache, chest pain, dizziness, swallowing problem, weakness, tingling and sensory disturbances, gait disturbance, blackouts and dyspnoea. Others present with a constellation of symptoms characterised by functional syndromes such as conversion disorder (functional neurological symptom disorder) and psychogenic non-epileptic seizures disorder, factitious disorder or dissociative amnesia (American Psychiatric Association [APA], DSM-V, 2013). Allanson, Bass, and Wade (2002) found that of the 25 patients referred to either the liaison psychiatry or the neurological disability service between 1992 and 1998 Oxfordshire, UK, 13 had a motor conversion disorder, 8 had diverse somatoform disorders and 3 had chronic fatigue syndrome. They also reported that 9 had extensive previous contact with psychiatric services and 11 had experienced physical or sexual abuse.

Factors such as gender, age and culture can influence clinical presentations. A review of these factors is beyond the scope of this essay (see Hausteiner-Wiehle, Schneider, Lee, Sumathipala, & Creed, 2011, for a review). One of the factors that has attracted a great deal of attention in

developing our understanding of MUS is the role of gender. Johnson (2008) suggests that women's symptoms are more likely to be multidetermined than men's symptoms, and because the most-established finding regarding MUS is that they are multidetermined, it is not surprising that MUS are more prevalent in women. According to Johnson, women are exposed more commonly to adverse life events such as abuse, neglect and role strain that have been shown to influence the precipitation and chronicity of MUS. Women have lower thresholds for perceiving symptoms, and therefore they are more likely to seek help for symptoms than men. Much of this can be explained by the gender role expectations and social learning wherein women's complaints about symptoms are more acceptable than men's physical complaints.

Greer and colleagues reported that primary care physicians were more likely to believe that the presenting symptoms had psychological explanations in female patients than male patients (Greer, Halgin, & Harvey, 2004). This may lead to women wrongly receiving too many functional labels. It is clear that women and men are different in biological makeup, and many psychological and social characteristics, therefore the care of patients with these disorders should be planned within this context of gender differences. Doctors should be well aware that gender differences can influence the way that patients present symptoms in their clinic as well as the way that health professional respond to this clinical population (Hausteiner-Wiehle et al., 2011).

3. Assessment and diagnosis

Assessment of patients presenting with functional symptoms is beginning of treatment process. It can be extremely difficult to distinguish between MUS and those with organic origins. The first step in the diagnosis of functional symptoms is to rule out an organic causation. Before asking for tests, physicians should attempt to review their patient's previous health records to avoid needless procedural replication. The second, equally important step, is to assess the patient for aetiologically relevant psychological or psychiatric factors such as stressful life events, trauma, anxiety and depression (Reuber, Mitchell, Howlett, Crimlisk, & Grunewald, 2005). In assessment of patients with suspected MUS, clinicians should demonstrate that they believe and are interested in symptom and severity and also they have to try to find out about what patient has been told about their symptom by other doctors (Creed & Guthrie, 1993). Moreover, in communicating the diagnosis with the patient, it is important to admit uncertainty if investigations are incomplete/inconclusive (Page & Wessely, 2003). Doctors often manage the symptoms by minimising (normalising), whereas patients usually seek explanations for their symptoms in order to make sense of their experiences. Diagnostic interview techniques can help clinicians clarify with the patient how structural disease has been excluded (Jackson & Kroenke, 2001).

Patients with MUS often complain about multiple physical symptoms. Clinicians should make a list of all complaints and pay particular attention to why patients are disabled and find out more about onset and course of the symptoms. It can be helpful to use biofeedback to assess psychophysiological responses of these patients to their physical condition. These psychophysiological responses can be discussed with the patients to raise their awareness of bodily reactions to stress. Dissociative symptoms such as depersonalisation and derealisation commonly occur in patients with functional symptoms. Patients may complain about previous doctors who "didn't listen" to them or their problem has not been taken seriously by health professionals. It is important to ask about these previous experiences for two important reasons. Firstly, it can warn physicians about explanations and treatments that they are likely to reject. Secondly, this shows that physicians are interested in their patients' suffering and in understanding their frustrations (Stone, Carson, & Shape, 2005a). As a part of assessment procedure, it is vital to ask about health-related beliefs and assumptions, explore past medical history and take a history of family issues and vocational functioning. Physicians should very carefully ask about emotional symptoms such as depression and anxiety and possible traumatic experiences and childhood adverse events. Finally, physicians may experience some negative feelings such as disgust (counter-transference) towards some of the "difficult" patients with MUS. It is important to include some training on management of these patients in medical curriculum.

4. Models of MUS

Models based on predisposing, precipitating and perpetuating factors have made an important contribution to the formulation and treatment of MUS or functional neurological symptoms (FNS). Depending on the specific model, research emphasis has been placed on different aetiological variables. Somatoform disorders (particularly conversion disorders) were originally conceptualised within the psychodynamic model as representing conflict that was converted and displaced into bodily dysfunction (see Stone, Carson, & Sharpe, 2005b). For about half century, from the late nineteenth until the mid-twentieth, psychodynamic approaches particularly the Freudian perspective had been influential in establishing conversion symptoms as an expression of unconscious conflicts displayed through bodily symptoms (see Johnson, 2008). These symptoms have two gains for patients, i.e. primary gain (reduction in anxiety and distress) and secondary gain (increased attention from others). An important facet of this model is where a symbol like pseudo-seizure may be said to represent a symbolic re-enactment of childhood sexual abuse.

More recent psychodynamic theory has moved away from a traditional sexual conflict explanation and instead highlights the importance of early attachments' issues and their effect on the relationships people form as adults. For example, insecure attachment and poor parenting could result in interpersonal dependency in adulthood on a doctor. Adverse childhood experiences may also affect the person's tendency to develop certain physical symptoms. For example, chronic pelvic pain complaints are more common in women with early childhood sexual abuse (Roelofs & Spinhoven, 2007). These early maladaptive experiences can influence unconscious processing of health-related information. More recently, Walla and Panksepp (2013) used neuroimaging methods to investigate the brain functions associated with non-conscious affective processing. They proposed the idea that "emotions" have their behavioural action roots deep in the brain. In a study, Walla and colleagues found that startle responses demonstrated sensitivity to affective valence and self-reference (Walla, Rosser, Scharfenberger, Duregger, & Bosshard, 2013). This implies that bodily sensations may stimulate some non-conscious processing with relevant affective valence and self-reference which precipitates the process of experiencing MUS. Thus, future studies using neuroimaging methods can shed a light on the brain functions involved in non-conscious processing of emotionally valenced bodily sensations in patients with MUS.

Later behavioural approaches proposed that excessive health-seeking behaviour may have its origins in childhood learning experiences. For example, children may imitate illness behaviour modelled by their parents (Bandura, 1977). Alternately, adults with excessive illness behaviours may have experienced stressful events in their early childhood such as separation and loss, or illness-specific stressors like long-term hospitalisation (Johnson, 2008). According to the behavioural models, health-seeking behaviour is conditioned and positively reinforced through learning experiences, particularly in childhood.

In the 1980s, Salkovskis and Warwick (1986) proposed a cognitive-behavioural model of hypochondriasis and health anxiety. According to Salkovskis and Warwick's model, dysfunctional assumptions and beliefs about the meaning of bodily symptoms play a key role in predisposing patients to health anxiety. This belief system can be activated by a variety of events, including reading about an illness, hearing about the illness of an acquaintance, illness-related media reports (e.g. news about AIDS) or by various bodily alterations or sensations (e.g. a blemish, a headache). Once triggered, these beliefs result in automatic hypochondriacal thoughts that are specifically self-focused. As a result, the person becomes increasingly anxious and hypervigilant for any sensations or signs that could be indicative of the disorder. Bodily sensations are then filtered through a confirmatory bias that exaggerates any evidence of illness resulting in health-seeking behaviour for physical symptoms (see also Marcus, Gurley, Marchi, & Bauer, 2007 for a review).

The cognitive-behavioural model of MUS emphasises "three Ps": predisposing, precipitating and perpetuating factors (Sharpe, 1995). Deary, Chalder, and Sharpe (2007) proposed a model of MUS which integrates the cognitive-behavioural therapy (CBT) model and various genetic, psychophysiological,

personality, attentional, social and interpersonal factors to explain the onset and maintenance of MUS. The fundamental assumption underlying the model is that symptoms are maintained by a self-perpetuating, multifactorial cycle encompassing the cognitive, behavioural and physiological factors. The key feature of CBT model is that these individual components become locked into an autopoietic cycle. An innate tendency to somatopsychic distress and ease of distress sensitisation, combined with childhood adversity, increase both the amount of symptoms experienced and lowers the threshold for their detection. Life events and stress lead to physiological changes which produce more symptoms and set up processes of sensitisation and selective attention. This further reduces the threshold of symptom detection. Stress cues become associated with symptoms through classical conditioning and avoidance of symptom provocation, and symptom-led activity patterns lead to further sensitisation through operant conditioning. The long-term stress of the illness experiences further activates physiological mechanisms, producing more symptoms, sensitisation, selective attention and avoidance. The individual can thereby become locked into a vicious cycle of symptom maintenance. The treatment relies on the model to identify the elements maintaining the autopoietic cycles, and to identify what factors made the individual vulnerable in the first place (see Deary et al., 2007).

Barsky and Wyshak (1990) proposed a cognitive and perceptual model for hypochondriac complaints. According to this model, hypochondriacs magnify benign somatic sensations and misattribute them to a serious illness. As a consequence, patients focus their attention on bodily processes and experience a broad range of somatic sensations as more intense, more noxious and disturbing. This self-focusing attentional style amplifies the perception of physical signals, thereby forming a vicious circle, which maintain somatic symptoms. Kirmayer and Taillefer (1997) extended the cognitive-perceptual model by integrating social and forensic aspects. According to Kirmayer's model, the interpretation of physical sensations as a sign of illness leads to help-seeking behaviour, and inadequate reassurance or negative doctor-patient interactions can increase the distress associated with symptoms. An interesting part of this model is the integration of social responses, which include other health care providers, work conditions, insurance and compensation systems.

Brown (2004) presents another multicomponent model for the development and maintenance of MUS. He proposes that MUS constitute an alteration in body image generated by "rogue representations" in the cognitive system. This model is based on a hierarchical cognitive model of attentional control proposed by Norman and Shallice (1986). Norman and Shallice described a higher level executive control system, the supervisory attentional system that, for the greater part, is localised in the prefrontal cortex. This system monitors ongoing activity and modulates behaviour when established automatic routines are not sufficient, for instance, in novel situations. Automatic routines are in their turn controlled by a hierarchical lower level control process, involving a series of well-learned behavioural units or schemata that can be activated by environmental and contextual stimuli through a decentralised and semi-autonomous process called "contention scheduling".

In Brown's integrated model, MUS arise when the lower level attentional process of contention scheduling selects rogue representations, which can be any kind of information concerning the nature of physical symptoms. These rogue representations can be acquired from many different sources, including personal exposure to a serious physical state (e.g. during periods of physical illness, or through traumatic experiences), exposure to physical states in others (e.g. abnormal levels of illness in the family environment), but also through sociocultural transmission or verbal suggestion. These experiences create memory traces that are functionally similar to those generated when the same symptoms are experienced in the self. The rogue representation selected by the primary attention system leads to the activation of the secondary attention system which involves selective attention to physical sensations, disease-confirming information and negative affect. These secondary attention processes facilitate reactivation of the rogue representation in the memory system (see also Rief & Broadbent, 2007).

More integrated theories have considered somatoform symptoms as creating by psychological distress that is not clearly acknowledged as such to non-psychologically minded individuals (Boone, 2011). This condition results in stress that "has to go somewhere" which appears in the form of

physical complaints with patients being more comfortable facing than the underlying emotional pain. Recent research findings point to several factors contributing to the development of MUS: (1) long-standing fears and concerns about bodily functions such as hypervigilance to physical symptoms and perceptions about physical vulnerability, (2) psychosocial factors such as problematic attachment (Meredith, Ownsworth, & Strong, 2008), sexual abuse (Sharpe & Faye, 2006), trauma (Sharp & Harvey, 2001), family history and modelling of functional symptoms (Taylor & Asmundson, 2004), lowered levels of social support (Nakao, Tamiya, & Yano, 2005) and (3) psychiatric conditions including depression (Lieb, Meinschmidt, & Araya, 2007), anxiety/panic attacks, personality disorders such as borderline and histrionic types (Demopulos et al., 1996).

Despite these convincing psychological models, it is increasingly recognised that a broader conceptualisation using a biopsychosocial perspective is essential in our explanation of FNS (Rief & Barsky, 2005). This allows consideration of individual differences such as genetic vulnerability that has been of relevance to other conditions when considering the link between adverse life experiences and developing MUS. This broad conceptualisation may explain why some people exposed, for example, to childhood abuse develop FNS, others depressive symptoms, while some remain healthy (Carson et al., 2012).

Research evidence suggests that genetics and biological factors such as hypothalamic–pituitary–adrenal axis, dysregulation, neuronal sensitisation and hyperexcitability, visceral hypersensitivity, immune suppression and autonomic dysregulation can predispose patients to MUS (see Johnson, 2008). Psychosocial stress such as adverse childhood experiences, work- and role-related stressors and interpersonal conflicts can aggravate these biological vulnerabilities. As Wilhelmsen (2000) in a biopsychosocial model proposed, a person with basic cognitions such as “the world is unsafe” and “physical symptoms are not normal and always a sign of serious disease” will screen the world and body for signs of threat. Thus, the cognitive factors such as misinterpretations, hypervigilance and catastrophising can increase the experience of symptoms. All of these processes between biological and psychosocial factors are bidirectional (Wilhelmsen, 2000).

In sum, the complexity of MUS requires more dynamic and comprehensive models to account for more variance among multiple factors. Future models ought to avoid reductionism and biological or psychological primacy and research should examine the contributions of various interrelated underlying psychosocial and biological mechanisms.

5. Malingering and factitious disorders

One of the questions commonly asked is whether functional symptoms are wilfully produced. Current classification systems of psychiatric disorders’ systems of mental disorders (DSM-V, ICD-10) distinguish between functional symptoms (which are not intentionally produced by the patient) from symptoms that are feigned (Reuber et al., 2005). It is important to discriminate MUS from malingering and factitious disorders. According to DSM-V (APA, 2013), malingering refers to conscious and deliberate feigning of symptoms for an obvious external gain (e.g. monetary compensation). In contrast, in factitious disorder, the symptom feigning is almost thought to be conscious and deliberate, but the goal of symptom fabrication is predominately related to psychological needs such as craving attention from medical personnel (Boone, 2009). It should be noted that in both malingering and factitious disorders, symptom faking can appear in discrete cognitive functions such as memory, executive and problem-solving abilities, or subjects may fabricate global cognitive impairments as observed in patients with dementia and stroke suffers. In cognitive assessment, it is important to determine whether the patient displays credible cognitive performance using “response bias” indicators. If a patient fails in numerous measures of response bias, the next step is to attempt to determine whether the symptom fabrication is conscious, unconscious or both.

6. Management and treatment

Despite development in theoretical understanding of MUS and somatoform disorders, the treatment of these disorders is very much in its infancy. One of the psychological therapies for MUS is supportive psychotherapy which is best carried out by a physician who is sympathetic and understanding toward the patient's physical and emotional difficulties. The advantage of the therapist's being a physician is that most patients with MUS believe they have a medical problem, as distinct from any mental health problems. They are therefore more able to trust a physician to respond appropriately to their "physical" health problems (see Mai, 2004).

Cognitive behaviour therapy (CBT) of some psychiatric conditions characterised by MUS such as somatisation and hypochondria has been empirically supported (see Woolfolk & Allen, 2012 for a review). Treatment tends to initially focus on the perpetuating cycle, attempting to dismantle the self-maintaining interlock of cognitive, behavioural and physiological responses hypothesised to perpetuate the physical symptoms with psychological causation (Deary et al., 2007).

In an earlier randomised controlled trial (RCT), Speckens et al. (1995) concluded that 82% of patients with MUS who received CBT improved or recovered at a 6-month follow-up as opposed to 64% of controls and this significant difference was maintained at a 12-month follow-up. In a RCT, it has been reported that CBT significantly reduced doctor visits in "highly impaired" patients with somatoform symptoms within the inpatient setting (Bleichardt, Timmer, & Rief, 2004). In another controlled trial, primary care patients with somatisation disorder who received group-based psychoeducational CBT combined with relaxation therapy as opposed to treatment as usual showed moderate but significant improvement in physical illness and somatic complaints (Lidbeck, 1997). In a review of literature on the treatment of resistant somatoform symptoms, Marcangelo and Wise (2007) recommend offering CBT to patients with recent symptom onset and insight into their comorbid mood and anxiety disorders with consideration adding an antidepressant if the patient does not improve after 8–12 sessions. In a recent study, McCormack et al. (2013) found that patients with severe, long-standing motor conversion disorders who admitted to a specialist inpatient unit and received CBT significantly improved in activities of daily living. The treatment involved psycho-education, cognitive and behavioural techniques, and relapse prevention strategies. One of the methodological flaws of this study was that it did not include a control group.

In a review of RCT studies, Kroenke (2009) concluded that CBT was the most effective treatment for a variety of somatoform disorders including somatisation disorder, undifferentiated somatoform disorder, hypochondriasis, conversion disorder, pain disorder and body dysmorphic disorder. The mean effect sizes were reported as .92 for antidepressants (5 studies), 1.43 for behavioural therapy (4 studies) and 1.78 for CBT (5 studies). In a meta-analysis of 27 studies, Kleinstäuber, Witthöft, and Hiller (2011) concluded that although with small effect sizes (range $d = .6-.40$), short-term psychological interventions such as CBT, psychodynamic psychotherapy and problem-solving play an important role in the treatment of chronic, multiple MUS. The authors conclude that the treatment effectiveness is possibly due to its focus on facilitating biopsychosocial health beliefs and self-responsibility of the patient in dealing with the somatic symptoms in contrast to alternative interventions like psychotropic drugs that facilitate passivity of the patient, support somatic health beliefs and bear the risk of side effects.

Kent and McMillan (2009) proposed a symptom-focused CBT-based treatment for MUS aimed at providing an empathic and non-judgemental approach to the patient's plight and helping them set up their own realistic goal. In this treatment model, engagement is a key factor in treating patients with MUS, particularly in light of the fact patients may be seeking medical explanation and cure rather than psychological formulation and treatment. This CBT-based treatment focuses on five areas which originally developed by Williams (2006) for depression. This five areas approach allows patient and therapist to develop a deeper understanding of the patient's physical symptoms by integrating the full range of the patient's experiences in areas of: (1) situation, relationships, resources, and practical problems, (2) symptoms, (3) behaviour, (4) thinking and (5) feeling. The outline of treatment is comprised of 10 sessions delivered in a multidisciplinary setting. Over the course of

therapy, the patient's key physical problems and therapy goals are identified and the impact of their behaviour on both their symptoms and their life is discussed (sessions 1–3), a collaborative, flexible formulation is generated and unhelpful thoughts are challenged (sessions 4–8), and finally a relapse prevention strategy is developed and a 6-month follow-up appointment is arranged (sessions 8–10).

As reviewed above, CBT can be effective in reducing the symptoms, distress and disability of patients with functional symptoms. However, one of the major obstacles of delivering any psychological treatment to this clinical population is that often psychological treatment is considered as irrelevant and so referral to mental health services as unacceptable. To overcome this potential obstacle, in a RCT, Sharpe et al. (2011) examined a CBT-based self-help treatment for neurology patients with functional symptoms. Patients in the treatment group showed greater improvement on a global health measure. At 6 months, the treatment effect was no longer statistically significant on the health measure, but was apparent in symptom improvement and in physical functioning (Sharpe et al., 2011). The authors suggested that future effectiveness studies should examine longer term outcomes as well as costs.

On the basis of research literature, there are three recommendations for enhancing the effectiveness of CBT for MUS: (1) to treat patients in the treatment setting where they seek treatment, i.e. primary care settings, (2) to integrate mental health care providers into the primary care, (3) to increase the length of treatment for patients who are willing to engage in CBT and have chronic and multiple somatic symptoms (Woolfolk & Allen, 2012). In a recent practice guideline published by the UK Department of Health (DH, July 2014) as a part of Improving Access to Psychological Therapies (IAPT) initiative, it is concluded that “community mental health teams and primary care mental health services have not been successful in engaging with patients experiencing MUS, as patients often do not perceive their condition to be related to mental health problems, and attempting to engage them in traditional mental health approaches is often ineffective” (DH, 2014). This guideline acknowledges that patients seeking help for MUS may feel that a referral to a mental health service invalidates their symptoms or show a lack of understanding of their symptoms and this has the potential to decrease rather than increase patients' access to therapy. The authors recommend consideration of other pathways such as IAPT clinicians working within primary care or as part of a multidisciplinary team in acute services or within an interface primary care team.

7. Conclusion

The term “medically unexplained symptoms” does not refer to a specific disorder. Patients with MUS or FUS constitute a large number of referrals to neurological and medical clinics. MUS are associated with higher levels of disabilities and costs of management and treatment of these patients in medical and health settings is significant. As discussed above, various psychobiological models provide plausible explanations for most common symptoms and would trace their origins to the generic and biological vulnerability aggravated by psychosocial stressors, adverse childhood experiences and interpersonal conflicts. Research in the treatment of MUS is very much at its infancy, but there is a large number of evidence suggesting the effectiveness of CBT in the treatment of some of these conditions. However, future research should focus on more integrated treatment approach which addresses various biological, psychological and social factors contributing to the onset and maintenance of these debilitating conditions.

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