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Somatic Symptom Disorders in Children

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Abstract

Physical symptoms without any identifiable structural or biochemical abnormalities on detailed clinical examination and investigations, are common in children. Some children may have persistent physical discomfort which can lead to debilitating impact on their academic and social functioning. These children seek repeated medical consultations and are usually subjected to unnecessary invasive diagnostic procedures. It is extremely important to understand that emotional factors can contribute to the development as well as maintenance of impairing physical symptoms. There is scientific evidence for the association of anxiety and functional somatic symptoms in children. The diagnostic category which was previously called somatoform disorders is now included in somatic symptom disorders.

The main feature of the somatic symptom disorders is the excessive concern with somatic symptoms. Detailed clinical examination and investigations will not reveal any abnormalities to explain the symptoms. The somatic symptom disorders are common in childhood. Cognitive behavioural therapy by experts in child guidance, will relieve the somatic symptoms related to anxiety and stress. If not intervened at the earliest, the persistent physical symptoms associated with emotional stress will cause significant functional disability in childhood. Unnecessary invasive medical interventions cause more agony to the child. These children also have high risk for developing anxiety disorders and depressive disorders in young adulthood. Hence, early intervention using cognitive behavioural techniques should be provided to all children with somatic symptom disorders, which will definitely improve their quality of life.

Keywords: Somatic symptom disorder, cognitive behavioural therapy, children

Introduction

Medically unexplained somatic symptoms in children are indeed a major clinical problem [1]. Physical symptoms related to stress are very common among children. Emotional stress can lead to somatic symptoms. These somatic complaints occur unintentionally. Somatization is diagnosed when emotional distress is manifested in the form of physical symptoms that cannot be explained medically. The patient actually experiences the physical symptoms. But there will not be any definite physical pathology [2,3].

Even after detailed clinical examination and investigations, no structural or biochemical abnormalities can be found to explain the somatic symptoms [4]. Some of these physical symptoms will become persistent and can lead to significant adverse impact in the academic and social functioning of children [5]. These children are subjected to unnecessary repeated medical consultations [6]. Invasive and costly diagnostic procedures are also done repeatedly in these cases. Hence it is very important to understand the emotional factors that contribute to the development and maintenance of the functional somatic symptoms and provide proper management at the earliest.

Somatic Symptom Disorders

Persistent physical symptoms associated with disproportionate feelings and behaviours is included in the new diagnosis of Somatic Symptom Disorder (SSD) in Diagnostic and Statistical Manual, 5th edition (DSM-5) [7]. The diagnostic category which was previously called somatoform disorders is now known as somatic symptom disorders [8]. DSM-5 criteria for somatic symptom disorder are more restrictive compared to DSM-4 criteria for somatoform disorders and are associated with higher symptom severity and lower level of physical functioning [9]. The children with somatic symptom disorders will have persistent complaints of somatic distress, which cannot be explained by a medical diagnosis.

Prevalence

The prevalence of somatic symptom disorder is estimated to be 5% to 7% in the general population. Patients with somatic symptom disorders belong to one of the most common categories of patients in the primary care setting. The female-to-male ratio of somatic symptom disorder is 10:1 [8]. Somatoform disorders are very common in primary care. Medically unexplained symptoms were reported by two-thirds of women as well as adolescents and children in primary care practices and the 12-months prevalence of somatoform disorders was 22.9%, in the study conducted in Germany [10]. In a population-based sample of Danish 5-7-year-old children, it was found that functional somatic symptoms are common in this age group. The 1-year prevalence was found to be 23.2% [1].

Clinical features

Somatization is very common among children and adolescents. The main feature of these disorders is the concern with physical symptoms resulting in excessive feelings related to those symptoms. The thoughts about the physical symptoms will be distressing and can result in disruption of daily activities. These children usually have high level of anxiety. The somatic symptoms must be persistent and can be associated with predominant pain. Academic, family related, personal and peer group related stressors as well as parental overprotection are common predisposing factors for somatic symptom disorders. There is strong association between emotional factors and physical complaints in children [11]. In the study involving 1323 children, recruited from the Copenhagen Child Cohort, health anxiety symptoms were found in 17.6% [12].

Children with somatoform disorders can present with varying physical symptoms. Children under stress may present with complaints of nausea, vomiting, diarrhoea, palpitation, headache, abdominal pain, limb pain, pain over multiple sites, difficulty in breathing, hyperventilation, aphonia, giddiness, fatigue, weakness, non-epileptic seizures, tremors, abnormalities of gait and problems related to micturition. Somatic symptoms are common responses to stress in children. Clinical examination will be normal. Even after detailed investigations, there will not be any structural or biochemical abnormalities to account for the physical symptoms [4].

Common Somatoform Disorders in Children

Pain disorders and conversion disorders are the most common somatoform disorders seen in children.

Pain Disorders

Pain complaints especially limb pain, abdominal pain and headache, are the most prevalent symptoms seen in pain disorders in children [1, 13,14, 15]. Higher prevalence of recurrent abdominal pain is seen in girls compared to boys. The highest prevalence of these symptoms is seen in the age group between 4 and 6 years and also during early adolescence [16]. Psychological stress play a major role in functional gastrointestinal disorders [17,18]. Children with peer problems usually experience functional abdominal pain [19]. Several school-aged children report recurrent functional abdominal pain which can be severe enough to interfere with daily activities.

Conversion Disorders

Conversion disorders presenting as movement disorders are indeed challenging for the treating doctors. There can be involuntary movements and gait abnormalities. Usually the onset is acute and the movement patterns are not consistent with organic movement disorders [20,21]. Dissociative motor disorder presenting as limping is common among children. There will be an underlying conflict which should be identified and managed by cognitive behavioural therapy.

Paroxysmal non epileptic events are very common in children and adolescents [22]. Non-epileptic seizure is the most common conversion disorder which is misdiagnosed as epilepsy. It will significantly affect the quality of life of the patients [23]. The presentation of paediatric patients with paroxysmal non-epileptic events differ according to age. They usually have age-specific patterns [24]. Psychogenic non-epileptic seizures (PNES) are somatic manifestations of emotional distress [25]. Several psychological stressors have been identified as precipitating factors in the development of PNES [26]. Paroxysmal non-epileptic seizures are difficult to manage conversion disorders with high medical morbidity. The children with high anxiety sensitivity, inadequate stress coping skills and more lifetime adversities are more prone to develop PNES [27].

Management - Cognitive Behavioural Therapy (CBT)

Management of patients with somatoform disorders is very complex and challenging [28]. Researchers have found the beneficial effects of CBT in the management of somatoform disorders [29]. Cognitive-Behavioural Therapy is the proven treatment for somatic symptom disorders [8].

The basic premise of cognitive-behavioural therapy holds that maladaptive cognitions contribute to emotional distress which in turn can cause stress related physical symptoms. Therapeutic strategies to alter these maladaptive cognitions lead of relief from emotional distress and associated somatic symptoms. In a comprehensive survey of meta-analyses conducted by Hofmann SG et al, it was found that cognitive behaviour therapy is effective in the management of children with somatoform disorders [30].

Cognitive-behavioural interventions reduce anxiety and somatic symptoms in children [31]. Study by Warner CM et al proved that cognitive-behavioural interventions are effective in the management of co-occurring physical symptoms and anxiety in children and adolescents [32]. Cognitive behavioural interventions are effective in children with nonspecific recurrent abdominal pain [33].

The Cochrane database systematic review by Abbott RA et al included 18 randomised controlled trials involving 928 children and adolescents with recurrent abdominal pain in the age group between 6 and 18 years carried out in the USA, Australia, Canada, Netherlands, Germany and Brazil. In this systematic review the authors concluded that there is evidence for beneficial effects of cognitive behavioural therapy in reducing the recurrent abdominal pain in children and adolescents [34].

Cognitive behavioural therapy is effective in the management of nonepileptic seizures [35]. Excessive anxiety is seen in children with non-epileptic seizures and cognitive behaviour therapy provides high rates of full remission of symptoms in these children [36].

CBT is proved to be most effective treatment for somatoform disorders in children and adolescents [14]. After reviewing 34 randomised controlled trials involving 3922 patients, Kroenke K concluded that cognitive behavioural therapy is the best established treatment for somatoform disorders [37].

Prognosis

Somatic symptom disorders can become chronic, if early interventions are not provided. Patients intervened scientifically usually recover completely. Studies have shown that about 50% to 75% of patients with medically unexplained symptoms show improvement [38]. Fewer physical symptoms and better functioning at baseline are good prognostic indicators [39].

In the observational cohort study, conducted on 1327 children of 5-7 years from Copenhagen, it was found that 250 children (18.9%) had functional somatic symptoms with healthcare use and 58 children (4.4%) had impairing functional somatic symptoms with healthcare use. The impairing functional somatic symptom in children aged 5-7 years is a predictor of the future primary healthcare use of the child [40].

Children with persistent somatic complaints have increased risk for developing generalized anxiety disorder and depressive disorder during young adulthood. Only early interventions for somatic complaints in childhood can alleviate this problem [41].

Early

Intervention

Awareness about the interaction between psychosocial stressors and somatic symptoms is necessary for improving functional status of patients with multiple somatic symptoms. If not intervened at the earliest, unnecessary testing and ineffective treatment may be provided, which in turn aggravates the morbidity of the patient [42]. Hence appropriate understanding and early diagnosis of somatic symptom disorders is essential. Cognitive behavioural interventions should be provided by experts in child guidance, for all children with functional physical symptoms. There should be strong positive relationship between the child guidance expert and the patient. Supportive visits are essential even after the somatic symptoms subside. When there are no definite indications, the temptation for medications and unnecessary diagnostic procedures should be avoided. Early treatments will significantly improve the quality of life of children with somatoform disorders [43].

Conclusion

Persistent physical symptoms associated with emotional stress can cause significant functional disability in childhood. The impairing somatic symptoms adversely affect the academic and social functioning of children. Unnecessary invasive medical interventions usually increase the agony of the child. More over children with recurrent somatic symptoms have high risk for developing anxiety disorders and depressive disorders in young adulthood.

After ruling out organic causes, anxiety and other emotional factors underlying persistent somatic symptoms in children should be identified and managed at the earliest with the help of experts in child guidance. Several scientific studies have proved the beneficial effects of cognitive behavioural therapy in the management of somatic symptom disorders. CBT gives relief to the child from emotional distress and the associated physical symptoms. Thus the emotional and physical well-being of these children can be definitely improved.

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