

# Functional somatic symptoms and syndromes in children and young people – a psychiatric perspective

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## ABSTRACT

Functional symptoms are common reasons for paediatric consultations. When severe, continuing and impairing they may be expected to be linked to a psychiatric disorder. The paper outlines the nosology and the bio-psychosocial framework that helps understand the origins and maintenance of these disorders; it addresses management strategies.

**Key words:** Children, functional symptoms, psychiatric disorders, biopsychosocial formulations, management

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## INTRODUCTION

As in adults, physical discomfort and somatic symptoms are a common experience in children and young people. Over the course of two weeks the majority of young people in the general population will endorse at least one physical symptom, most commonly headaches but also abdominal symptoms and tiredness (Vila et al, 2009). These are mostly mild, short-lived and functional or not due to a recognisable medical disorder. Often they will be linked to physiological bodily changes in response to the myriad of potential threats to the body's optimum functioning, and their non-morbid nature will be recognised by families. For a proportion of children however, functional symptoms become severe and persistent or recurrent, they cause concern and disruption to child and family life and lead to medical consultations (Rask et al, 2013a). Occasionally the symptoms become extremely severe and incapacitating and lead to prolonged school absence over months or years.

When paediatric consultation fails to identify a medical cause for impairing functional symptoms the explicit or implicit conclusion may be that the symptoms are not "real" and "all in the mind", or that the child is putting them on for some personal gain: this may prompt a psychiatric referral. Not uncommonly the psychiatric contribution is assumed from the exclusion of an explanatory medical disorder, rather than from the positive identification of relevant psychosocial or psychiatric factors. Since the physical symptoms feel very real to children and families and this is the focus of their concern, the psychiatric referral may be regarded by the family unfavourably and

result in failure to engage with mental health services. This paper examines the contribution of psychosocial factors and psychiatric disorders to functional physical symptoms and syndromes in children and young people.

## FUNCTIONAL SOMATIC SYNDROMES IN PAEDIATRIC PRACTICE

Functional physical symptoms are a common reason for both generic and specialist medical consultations. Whilst presentations are often multi-somatic, affecting multiple bodily systems, individual medical specialties tend to use specialist-specific diagnostic syndromic terms. Functional abdominal symptoms may be classified in terms of specific organ and symptom patterns (<http://theromefoundation.org/rome-iv/whats-new-for-rome-iv/>) in gastrointestinal clinics; prominent fatigue as post-viral fatigue symptoms or fibromyalgia in infectious diseases or rheumatology clinics; unusual neurological symptoms such as gait disturbances or non-epileptic seizures as functional neurological symptoms. Paediatric consultations where clinicians are seen by children and families as taking the symptoms seriously and carrying out the necessary medical investigation whilst also exploring the possible contribution of psychosocial or psychiatric factors are likely to be perceived by families as more helpful than those focusing on the exclusion of medical disorders (Williams et al, 2009).

For most children with functional symptoms a paediatric consultation will result in symptom improvement. Nevertheless there will be a proportion of moderately to severely affected children and young people, usually with multiple physical symptoms, who do not respond and where psychological factors and psychiatric co-morbidities are likely to be particularly relevant and need addressing.

### THE CONTRIBUTION OF PSYCHIATRIC DISORDERS AND PSYCHIATRIC FUNCTIONAL SOMATIC SYNDROMES

As in adults, the contribution of psychopathology to bothersome functional symptoms or syndromes may be conceptualized as

<sup>-1)</sup> Physical symptoms as an expression of a psychiatric disorder, most commonly anxiety or depressive disorders: fatigue is a symptom of depression, and dizziness, palpitations and muscle tension are features of anxiety disorders. Psychiatric enquiry will identify the primacy of the psychiatric disorder, and the physical symptoms will be treated in this context.

<sup>-2)</sup> Anxiety, depressive or other psychiatric disorders as co-morbidities or co-existing with - rather than explaining - the physical symptoms; psychiatric co-morbidities can aggravate the somatic symptoms and may require treatment in their own right, but their treatment may not be expected to resolve the somatic presentation

<sup>-3)</sup> When psychosocial factors are seen as having a central role in the development and maintenance of the somatic symptoms, in what may be described as primary psychiatric functional somatic syndromes. In psychiatric classification systems these were previously designated as somatoform disorders (new terms are now used, namely Somatic Symptom disorder (DSM 5; APA, 2013) and Bodily Distress Disorder (proposed for ICD 11; Gureje and Reed, 2016)), complemented by Dissociative/ Conversion-type disorders. In Somatic Symptom Disorders the symptoms involve excessive thoughts, feelings and behaviours centred on somatic symptoms or health concerns, which are persistent (normally over 6 months) and distressing and result in significant disruption of daily life. In dissociative/ conversion disorders symptoms are neurological-like and affect voluntary motor or sensory function, but they are not compatible with recognised neurological or medical conditions.

In children the most common disorders may well be based on the presence of abdominal pains, whilst in adolescence headache, fatigue and musculoskeletal pains become more prominent; dissociative/conversion symptoms are comparatively rare (Ani et al, 2013).

### THE DEVELOPMENT AND MAINTENANCE OF PSYCHIATRIC FUNCTIONAL SOMATIC SYNDROMES

A pragmatic way of explaining the development of psychiatric functional somatic syndromes is by using a biopsychosocial or “holistic” model, one that breaks down the traditional mind-body divide and recognizes the relative contribution of interacting biological, psychological and social risk factors, involving joint biological and psychological susceptibilities. Similar psychosocial risk factors are thought to apply to presentations with symptoms affecting different bodily systems and may underlie, trigger or maintain the disorder: the identification of modifiable maintaining factors is particularly important in management. The biopsychosocial formulation helps understand how the problem developed and focus on the most important modifiable maintaining factors (Garralda & Rask, 2015).

**Biological risks** can be both underlying and triggers. For example twin studies have identified a genetic contribution to the family clustering of functional syndromes, and episodes of acute gastroenteritis may signal the beginning of recurrent abdominal pains in children. There are indications that biological sensitivities play a part in the development of functional syndromes: for example children with recurrent abdominal pains report an enhanced symptom increase following water load provocation tests (Walker et al, 2006), and hypersensitivity to sensory and tactile stimulation in infants may contribute to functional symptoms in later childhood (Rask et al, 2013b). In addition, the case has been made for functional symptoms reflecting dysregulation of biological stress systems in their various forms.

**Psychological risk** and maintaining factors include child temperamental and personality features - such as vulnerability or high reactivity to stressful events and/or relationship difficulties, anxiety proneness, conscientiousness and perfectionism - linked to excessive stress sensitivity. Some children put themselves under undue pressure to succeed educationally, to please others and obtain their approval, and may end up in intolerable predicaments they cannot escape or communicate effectively about (Kozłowska, 2001). Alongside these vulnerabilities, children also tend to display comparatively ineffectual stress coping strategies, with excessive negative affect, avoidance and reduced use of problem solving techniques when dealing with somatic symptoms and related impairment.

**Psychosocial environmental risk factors** may involve living through a difficult parental divorce, bullying or excessive pressure to perform in school, but also a number of other traumatic events. Parental emotional over-involvement with the child's symptoms (ie intense affect and preoccupation and over-protectiveness) may also play a part and result in an excessive focus and attention on the somatic symptoms. This unhelpful focus may be added to by iatrogenic factors such as excessive physical

investigations, multiple clinical consultations and a lack of effective exploration of possible contributory psychosocial factors.

### THE STEPPED-CARE APPROACH AND PSYCHIATRIC INVOLVEMENT

A stepped-care approach is recommended in management, with mild or transient symptoms managed in primary care, more impairing problems seen by paediatric services, and severe problems referred - in the best case scenario - to paediatric liaison child and adolescent psychiatrists or specialist child and adolescent mental health clinics with expertise in the management of interface physical and mental health problems (Garralda & Rask, 2015; Garralda & Slaweska-Hollis, 2016).

At all levels, a medical psychosocial intervention should incorporate a detailed history of the symptom, making sure the necessary investigations are done but also taking elements of a psychiatric and biopsychosocial history, exploring child vulnerabilities and potentially contributing family and school stresses and attitudes. Some children and families have a special difficulty in accepting that a purely physical symptom may be explained and managed within a psychosocial framework, and a psychiatric referral needs to be done particularly sensitively and positively. Child psychiatric assessment of moderate to severe functional syndromes is called for in order to clarify the presence, role and management of co-existing anxiety, depressive or other psychiatric disorders, and to confirm or exclude and manage relevant risk factors.

Specific approaches to the management of functional symptoms are pain management - involving distraction techniques and relaxation for headaches - and commonly also graded increase in physical and social activity and school attendance, alongside addressing perpetuating factors such as concern about school progress and peer interactions, and helping parents alleviate these and reduce attention to the symptoms, encouraging instead adaptive pain related behaviours and the sharing of enjoyable non-symptom related activities.

The best evidence for the treatment of marked/severe psychiatric functional somatic symptoms supports the use of specialist interventions such as family cognitive behaviour therapy for abdominal pains, individual cognitive behaviour therapy for chronic fatigue and relaxation exercises for headaches, but new treatments involving mindfulness and acceptance training techniques together with behavioural change have shown promise and are currently being evaluated (Garralda & Rask, 2015; Kallesoe et al, 2016). Psychopharmacology with SSRIs and tricyclic antidepressants can be helpful in adults with functional syndromes and disorders and may on occasions be useful with affected children too. The treatment of psychiatric co-morbidity should be addressed because in addition to improving the psychiatric problem itself,

it can also improve children's motivation and help them engage with effective treatments for the functional somatic symptoms.

### CONCLUSION

Functional symptoms are common in children. When bothersome they lead to medical consultations and may be diagnosed as one of the paediatric speciality-specific functional syndromes. Functional symptoms may be a symptom of a primary depression or anxiety disorder, or alternatively of psychiatric functional somatic syndromes, when there is a positive psychosocial contribution and the problems tend to be severe, pervasive and impairing. They include the previously designated as Somatoform Disorders and now as Somatic Symptom or Bodily Distress Disorders, and the Dissociative/Conversion Disorders. The development of psychiatric functional syndromes is best understood with a biopsychosocial framework addressing: <sup>1</sup>children with joint biological and psychosocial vulnerabilities, manifested through heightened stress sensitivity and ineffective coping mechanisms; <sup>2</sup>in a context of acute or ongoing environmental disruption or stress, usually familial or school related; and <sup>3</sup>where the excessive focus on the symptoms (expressed through high levels of family concern and unproductive medical investigations) together with a lack of early psychosocial formulations may all contribute to the maintenance of the problem.

The increased use of biopsychosocial formulations in paediatric clinics and of sensitive early referrals to specialist paediatric liaison child and adolescent psychiatrists or mental health clinics should do much to alleviate the symptoms and prevent them from becoming entrenched, as would the use of specific treatments primarily involving family or individual cognitive behavioural therapy or related techniques.

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