**The Impact and Influence of Psychosocial Factors on Asthma**

Dr Frances Beresford, Clinical Psychologist, Royal Brompton Hospital, London

[f.beresford@rbht.nhs.uk](mailto:f.beresford@rbht.nhs.uk)

In order to deliver effective asthma management both **psychosocial** and physical factors need to be considered; they are inextricably linked to all health issues but have been noted to be particularly pertinent in some chronic illnesses, one of which is asthma. The impact can be either positive or negative. For instance, the beliefs children and families have about asthma, prescribed medication and/or the disease will impact on how they perceive the child’s symptoms, their willingness to engage with health advice, any prescribed treatments and/or suggested life changes. Evaluation of mental health symptoms and psychosocial factors that are known to be associated with asthma leads to informing more effective and comprehensive interventions resulting in better asthma control, improved child and family quality of life, reduced mortality and health care cost savings. It is not useful to try and determine causality, whether asthma caused psychosocial issues or the other way round, if both are present, both need addressing on their individual merits.

**The Psychosocial Issues and the Impact they have on asthma**

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**Mental Health and Coping in the Primary Care Giver**

It is widely reported that there is a higher incidence of anxiety and depression in parents of children with asthma, particularly mothers (Easter et al 2015). The impact of depression can be profound. Mothers’ level of depression was associated with beliefs and attitudes that directly influence adherence, such as less belief in the efficacy of asthma medication and poorer understanding of how to use medication (Bartlett et al., 2004). Parents’ mental health can have an unfavourable impact on the course of asthma in their children (Tibosh, Verhaak & Merkus, 2010.

Taking the time with caregivers and families to assess, listen, discuss and provide education about asthma and asthma management helps build confidence and trust between the medical team and family, which will promote collaboration in goal setting and aid adherence to the child’s asthma medication regimen (Bender, 2002). Written instructions and materials given to caregivers and their families aim to reinforce the education/instructions that are provided during visits.

Asthma Action Plans should be regularly updated and given to all caregivers, including school (e.g. updated at every clinic visit). Providing good asthma education to parents and carers builds on self-efficacy and confidence, leading to reduced asthma-related hospitalisations in children (Flores, Abreu, Tomany-Korman, & Meurer, 2005), this will include assessment of inhaler technique, understanding of medications, knowing how to identify when asthma is deteriorating and knowing what to do. The assessment and addressing of parents mental health needs, identifying the issues, referring to appropriate agencies and offering regular reviews is equally as important.

**Mental Health and Coping in the Child Patient**

The challenges of coping with a chronic disease, such as asthma, requires a child (and parents) to manage an additional level of stress. Managing this stress can require adaptation cognitively, emotionally, behaviourally and socially. The child and their family’s coping style has been shown to have significant associations with clinical outcomes, such as physical functioning, disease control, morbidity, mortality and quality of life (Braido et al 2012). An adaptive style of coping might include acceptance of the illness, actively addressing challenges presented by the disease and acknowledgement of the emotions associated with this. Maladaptive coping styles can include passive, avoidant or emotion focussed coping styles. Once coping styles are identified, children and their families can be offered training and educational interventions to strengthen their coping strategies, improving asthma management, self-confidence and reducing anxiety and make positive changes where appropriate.

Empirical evidence consistently reports higher rates of anxiety, depression and stress in children with asthma (Katon et al 2004). Parental coping styles directly influence the coping style of their child, this is particularly pertinent to anxiety. Anxiety (also referred to as ‘worry’, ‘fear’ or ‘stress’) can be causal and/or a consequence of asthma. The impact is variable and dependent on many contributing factors. A helpful impact of anxiety is that it will heighten awareness of symptoms and can help children to avoid allergens, use medication and/or to seek adult help. Conversely a negative impact can be hyper-vigilance of symptoms, avoidance of activities and/or misinterpretation of anxiety and panic symptoms. Physical manifestations of anxiety include hyperventilation and other dysfunctional breathing patterns (which may themselves be mistaken for uncontrolled asthma and managed by inappropriate escalation of medication), palpitations, breathlessness, sweating and shakiness. Thoughts connected with this state of arousal can include ‘I can’t breath’, ‘I’m going to die’, which in turn fuels the anxiety response. These consequences of anxiety can complicate the clinical picture and lead to escalation of medical interventions that could be avoided by recognition and treatment of the anxiety. The literature suggests that children reporting high levels of anxiety access healthcare more frequently and children who report a significant level of anxiety and/or depression symptoms also report a much higher asthma symptom burden (Richardson et al 2006). This has implications on their and their main care givers’ quality of life and the cost of health care services.

By screening for anxiety symptoms, exploring children’s thoughts and beliefs and assessing their breathing pattern, any reported worries and fears can be identified and then addressed by the multi-disciplinary team, including clinical nurse specialists, physiotherapists and psychologists. This can be through psycho-education of anxiety, breathing techniques, relaxation and cognitive behavioural therapy.

Below is a link to an example of a toolkit for teenagers and young people living with asthma:

<http://www.paintoolkit.org/downloads/My_Asthma_Toolkit_April_2015.pdf>

The diagram below gives an example of various systems, and as such possible influences, which may surround the child and/or their family. At the Royal Brompton Hospital we have found that by involving wider systems around the child and family we have improved the understanding of the individual needs of a child and family, resulting in improved concordance of the child and their family to the management of asthma.

In summary, both from the literature and anecdotally, psychosocial factors have been found to play a significant role in gaining a clear understanding of childhood asthma and without this understanding the management can be compromised. Through a thoughtful assessment the level of complexity can be clarified and interventions offered according to need. This is a relatively new area and further research is needed to build a model of what works for whom.

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