



Use of the Nijmegen Questionnaire in asthma

From the authors:

We, like M. Thomas and colleagues, prefer to see the meaning of Nijmegen Questionnaire within a broader conceptual framework than ventilation and hypocapnia. M. Thomas and colleagues refer to “the variety of drivers (physiological, inflammatory, environmental, psychological, perceptual, behavioural and comorbidity-related) that contribute to asthma control.” We want to stress that the Nijmegen Questionnaire was never intended to be used in asthmatic patients. Actually, asthmatics, as well as other patients with respiratory diseases, were explicitly excluded from the initial studies of the questionnaire. The fact that both hyperventilating patients and asthmatic patients may have similar sets of complaints is not really surprising, considering the pathophysiology of both afflictions. We agree that the Nijmegen Questionnaire is indicative of the level of stress that many asthma patients may experience, which decreases asthma control and may result in faulty breathing patterns. Given the multidimensional nature of asthma, it is not really surprising that the questionnaire does not predict the outcome of breathing retraining. The question remains, however, of how to assess a faulty breathing pattern and, more specifically, of whether a faulty breathing pattern is the result of increased stress or is an inherently dysfunctional breathing pattern. This question comes from the conceptual framework of the definition of functional breathing. For asthmatics, M. Thomas and colleagues, pragmatically, chose “providing breathing training in a convenient, accessible and affordable way”. However, both the definitions of functional breathing and of convenient breathing training are not fully clear and require further study. Given this lack of clarity, one of the authors (J. van Dixhoorn) developed a procedure of indirect breathing regulation [1] in which the goal is not a specific mode of “proper” breathing. Instead, awareness is promoted of one’s breathing and its variable response to a more or less balanced posture and more or less focussed attention.

We would like to add a remark with which M. Thomas and colleagues would probably agree. There have been two Cochrane reviews on treatment of dysfunctional breathing, one in adults and one in children [2, 3]. The authors of those reviews seem to interpret dysfunctional breathing as another word for hyperventilation syndrome and they searched for evidence of its treatment in patients *without comorbidity* (emphasis mine). This is at best premature, as most (recent) authors study dysfunctional breathing as a factor that complicates diagnosis and treatment of a *specific morbidity*, as we have pointed out. It would be preferable to perform a Cochrane review of the occurrence of functional respiratory complaints/dysfunctional breathing in various illnesses. It remains to be seen whether dysfunctional breathing will acquire the status of an illness *per se*.

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- 3 Jones M, Harvey A, Marston L, *et al.* Breathing exercises for dysfunctional breathing/hyperventilation syndrome in adults. *Cochrane Database Syst Rev* 2013; 5: CD009041.