

# HYPERHIDROSIS IN CHILDREN: A RETROSPECTIVE STUDY DESCRIBING SYMPTOMS, CONSEQUENCES, AND TREATMENT WITH BOTULINUM TOXIN TYPES A AND B

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## Introduction and Objectives:

Primary focal hyperhidrosis is a pediatric disease. Despite this, nearly all studies on botulinum toxin treatment in hyperhidrosis are performed on adults. The purpose of the study is to present clinical data and quality of life in children suffering from hyperhidrosis, as well as treatment effect and safety of botulinum toxin (Btx) injections.

## Methods:

This is a retrospective study including 366 children during a period over 2 years. In relation to the first consultation at the clinic all children were asked to answer the Dermatology Life Quality Index (DLQI) questionnaire. Furthermore, the children answered a questionnaire routinely used at the clinic to obtain information regarding the medical history of hyperhidrosis. The children were asked to rate the Btx treatment effect in the 5-grade scale: Global Assessment of Therapy (GA) as well as the duration of complete satisfaction.

## Results:

The total score of the DLQI before treatment for children aged 16-17 years old was 11 (Q1=8, Q3=15) (median (first quartile, third quartile)) and for children younger than 16 years the total score was 12 (Q1=7, Q3=15). The results of DLQI were accompanied by free comments, which included physical, psychosocial and consequence related symptoms (Figure 1). More than 70% of the children suffered from multifocal hyperhidrosis. Eighty percent of the children specified at least one aggravating factor, where the most common ones were stress and heat/physical effort. In total, 323 children received Btx type A and/or type B of which 193 children received repeated treatments. Over 85% reported that their “sweating disappeared completely”, i.e. the highest score in the GA-scale. The duration of treatment satisfaction varied somewhat between the different areas, but for the whole group receiving repeated treatments the median duration of complete satisfaction was 3 months. Of the 193 children 46 reported 52 adverse events that resolved spontaneously without complications.

## Conclusions:

Focal and multifocal hyperhidrosis is a pediatric disease associated with severe negative quality of life, which can be successfully treated with Btx type A and/or type B with few and temporary adverse events.

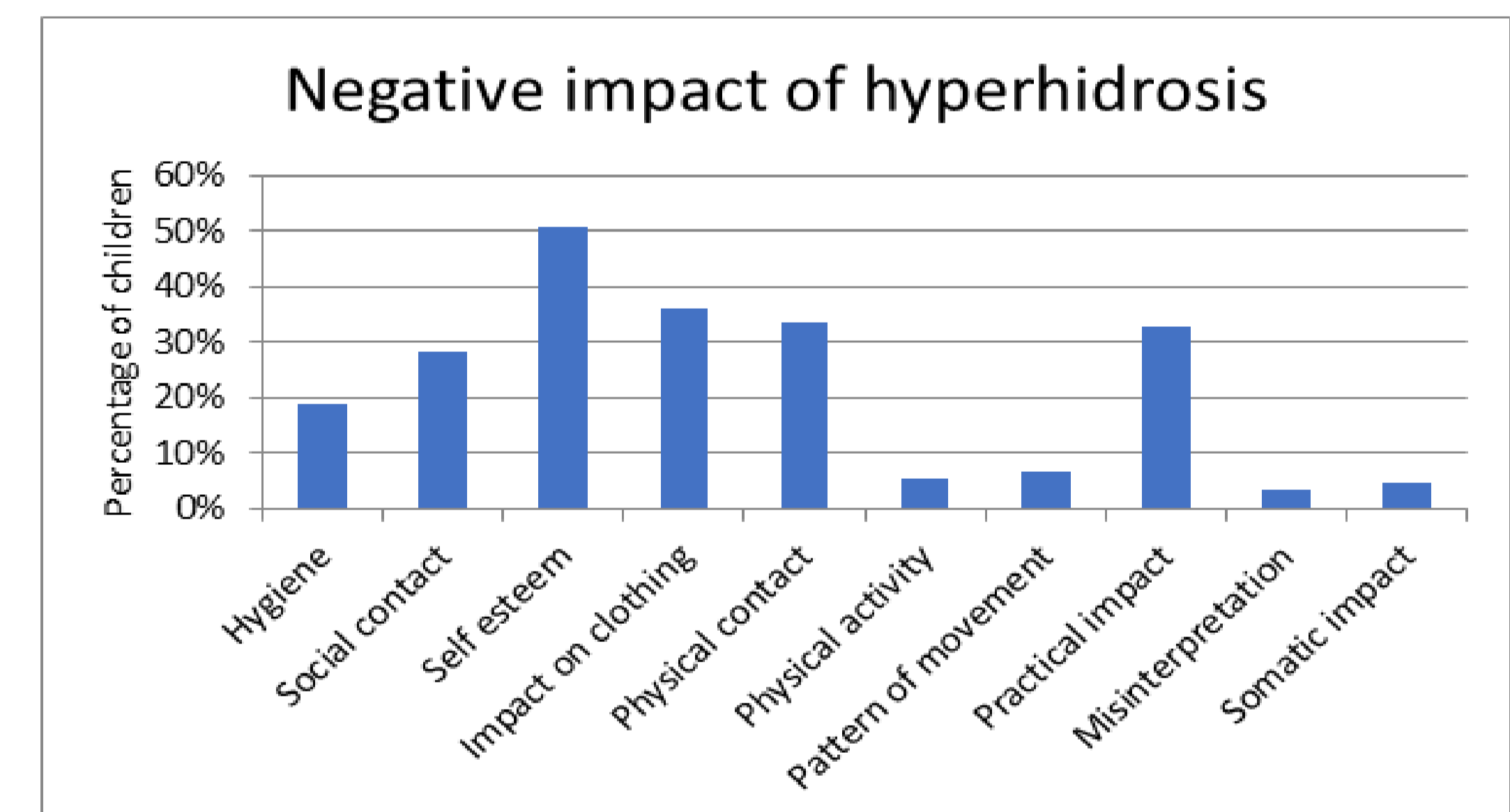
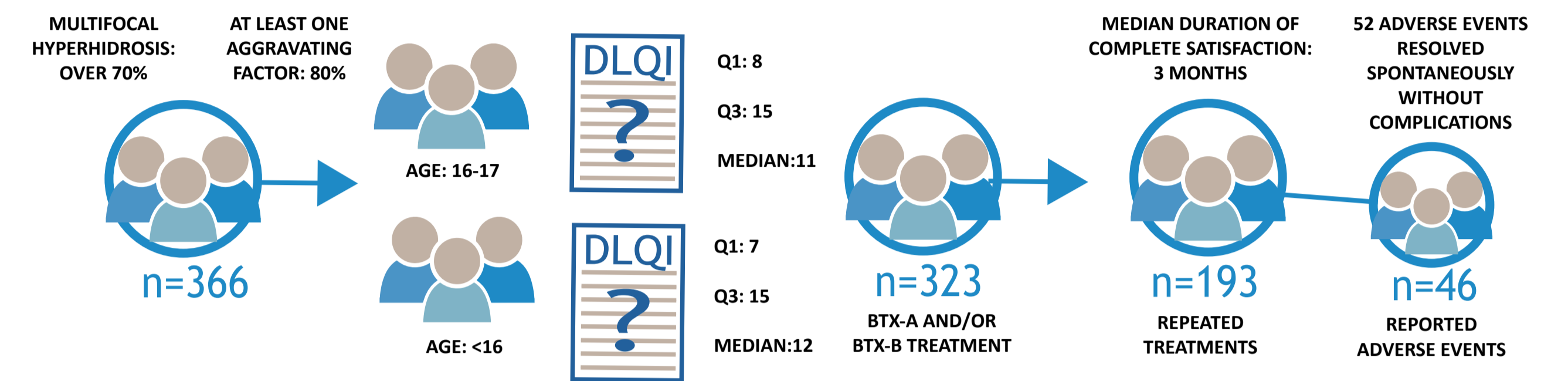


Figure 1. The children were able to write free comments in one of the questionnaires. Re-occurring adjectives and phrases written by 325 children were identified and categorized into 10 different domains. The percentage of children describing problems due to hyperhidrosis within each domain is presented in the figure. Examples of adjectives and phrases used in the comments: hygiene – smelly, social contact – avoiding important situations in life, self-esteem – ashamed, impact on clothing – ruined shoes, physical contact – play with friends, physical activity – less physical effort, pattern of movement – doesn't sit on plastic chairs, practical impact - stains on surfaces/paper, misinterpretation – affects school grades, somatic impact – fungus infection etc.