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#### ORIGINAL PAPER/PRACA ORYGINALNA

# Habit cough in children. Specific symptoms and psychotherapy

Kaszel psychogenny u dzieci. Charakterystyka objawów i psychoterapia

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## **ABSTRACT**

**Introduction:** Cough is an important defence reflex. Dry, non-productive cough continuing for at least 4–6 weeks may pose a diagnostic and therapeutic issue. Psychogenic cough is described as somatoform autonomic dysfunction and is diagnosed by excluding physical causes.

**Aim:** To determine the aetiology and triggering mechanisms of habit cough and evaluate the treatment effects obtained with different types of psychotherapy.

**Material and methods:** The study involved 30 children. Having excluded somatic disease foundation, psychological assessment was performed. Short-term psychotherapy and Ericksonian therapy were implemented. **Results:** The studied children suffered from sibling rivalry disorder, separation anxiety disorder of childhood, school anxiety, parental conflicts, communication failure, internal emotional conflicts, and lack of ability to cope with emotions and stress.

**Conclusions:** Parents of psychologically troubled children presenting habit cough and other forms of somatoform autonomic dysfunction play an enormous role in the treatment process and should be active during psychotherapy.

#### **KEY WORDS**

habit cough, psychotherapy, differential diagnosis.

#### **STRESZCZENIE**

**Wprowadzenie:** Odruch kaszlowy to istotny mechanizm obronny organizmu. Suchy i nieproduktywny kaszel, który utrzymuje się przez co najmniej 4–6 tygodni, stanowi wyzwanie diagnostyczne i terapeutyczne. Kaszel o podłożu psychogennym jest schorzeniem z zakresu zaburzeń wegetatywnych występujących w postaci somatycznej, a rozpoznanie ustala się na podstawie wykluczenia schorzeń fizycznych.

**Cel pracy:** Określenie etiologii i czynników sprzyjających występowaniu kaszlu psychogennego oraz ocena efektów leczenia za pomocą różnych rodzajów psychoterapii.

**Materiał i metody:** W badaniu wzięło udział 30 dzieci. Po wykluczeniu podłoża somatycznego przeprowadzono badanie psychologiczne. W leczeniu zastosowano psychoterapię krótkoterminową i terapię ericksonowską. **Wyniki:** U badanych dzieci rozpoznano zaburzenia relacji z rodzeństwem, zespół lęku separacyjnego, fobię szkolną, konflikty pomiędzy rodzicami, zaburzenia komunikacji, wewnętrzne zaburzenia emocjonalne oraz brak zdolności radzenia sobie z emocjami i stresem.

**Wnioski:** Rodzice dzieci cierpiących na zaburzenia o podłożu psychicznym objawiające się w postaci kaszlu psychogennego odgrywają istotną rolę w procesie leczniczym i powinni aktywnie uczestniczyć w psychoterapii.

#### **SŁOWA KLUCZOWE**

kaszel psychogenny, psychoterapia, diagnostyka różnicowa.

#### ADDRESS FOR CORRESPONDENCE

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## INTRODUCTION

Cough is an important defence reflex that prevents from aspiration of harming particles into the respiratory tract, cleans the respiratory tract, and is one of the most common symptoms of respiratory tract diseases [1]. Cough accompanying a common cold usually resigns spontaneously and does not require treatment. On the other hand, dry non-productive cough continuing for 4–6 weeks or longer may pose a diagnostic and therapeutic issue [2]. Upper respiratory tract infections and rhinosinusitis are the most probable cause of cough in non-smokers. Other widely known causes include the following: bronchial asthma, gastroesophageal reflux, chronic obstructive pulmonary disease, and respiratory tract abnormalities.

The cough reflex arc consists of cough receptors, cough centre in medulla oblongata, efferential nerves, and respiratory muscles as effector organs [3]. Cough can be inducted purposefully or as a result of receptor irritation by osmotic, mechanical, or chemical stimuli [2]. Sensory receptors responsible for cough reflex inception are located in the upper respiratory tract (both within epithelium cells and under epithelium layer) – in the pharynx, larynx, trachea, and initial parts of the main bronchial tubes. Cough receptors can also be located beyond the respiratory tract – in the stomach, diaphragm, peritoneum, pericardium, tympanic membrane, and inner ear [3]. Triggering cough reflex in clinical situations not directly concerning the respiratory system may be explained by the distribution of receptors in the human body.

Psychogenic cough is diagnosed by excluding other causes. There is no physical confirmation of abnormality that could cause this symptom [4]. Habit cough is a type of nervous tic; it is a manifestation of emotions that the patient is unable to communicate to other people [5].

Habit cough is dry, loud, and barking or rumbling, but it does not result in dyspnoea. The symptoms escalate during stressful life situations and subside when the patient is focused on other activities and is not the centre of attention. Psychogenic cough never occurs during night sleep and always gives rise to much attention and interest from other people [6]. The patient is not aware of his/her actions, which means that the illness differs from disease simulation [7].

In diagnostic criteria, habit cough is described as somatoform autonomic dysfunction. The main feature of this condition is the occurrence of symptoms accompanied by obstinate requirement of medical investigation, despite negative outcomes of such investigation and doctors' assurances that raised complaints do not have any physical explanation [8]. Patients present symptoms as if they were caused by an actual substantial disorder of a system or organ, which is under autonomic innervation. Somatoform dysfunction may manifest itself as cough, diarrhoea, dyspepsia, urination dysfunction, flatulence, hiccough, hyperventilation, polyuria, or irritable bowel syndrome.

## **AIM**

The aim of our research was to determine the aetiology and triggering mechanisms of habit cough and evaluate treatment effects obtained by different types of psychotherapy techniques.

### MATERIAL AND METHODS

The study involved 30 children aged from five to 13 years. The research group consisted of 24 boys and 6 girls. Patients qualified for the study underwent thorough laryngological examination including physical

TABLE 1. Unfinished Sentence Test — examples of answers

Given sentence	Answer
My Father	'works', 'annoys me', 'yells at me', 'does not care about me'
My Mother	'calms me', 'is fun, but gets angry a lot'
When I was younger	'  wasn't popular'
I hate	'school'
I want	'my classmates to stop bullying me'
I get angry	'with my sister'

examination, endoscopic assessment of the larynx, and bronchoscopy; chronic tonsillitis, sinus diseases, and atypical pulmonary infections were excluded. Having excluded any somatic disease foundation, psychological assessment was performed, including psychological clinical history, emotional and adaptative evaluation using Unfinished Sentences Test, family painting, and family status diagnosis using a genogram. Short-term psychotherapy and Ericksonian therapy (prescribing the syndrome and communicating with that particle which represents the symptom) were implemented [9]. The aim of therapeutic proceedings was to discover the psychological reasons for dysfunction and blocked emotions exposure, learning proper reactions towards dysfunction, family encouragement – especially in stressful situations, effective communication cognition, and learning ways of unhampered self-expression.

## **RESULTS AND DISCUSSION**

In the Unfinished Sentences Test the patients' most common answers included wordings presented in the table below (Table 1).

Ninety percent of studied boys had younger siblings, mostly sisters (70% of the examined group); sibling rivalry disorder was diagnosed in these patients. Eight children without siblings were diagnosed with separation anxiety disorder of childhood. One girl had four siblings – two younger than her, and the oldest brother already had children of his own; she was also diagnosed with sibling rivalry disorder.

In 10 cases the parents remained in exacerbated conflict after divorce. In 70% of studied families the patient's mother was undergoing treatment for depression or anxiety neurosis. In those highlighted situations studied children presented over-protective behaviour towards their mothers.

Eighteen patients accepted for the research were diagnosed with school anxiety and phobia, while 15 children confirmed the presence of violence in their schools. Boys in these subgroups remained in weak relationships with

their fathers. In all families among these subgroups, altered upbringing behaviour was observed in both parents; parental conflicts and communication failure were also common. All of the studied children represented signs of excessive anxiety, internal emotional conflicts, lack of ability to cope with emotions and stress, desire to attract attention toward themselves and their feelings and distract parental attention from conflict between them, and concern about their mother and an urge to extricate her from sorrow.

Effective cough treating techniques were elaborated, which included: learning adequate reaction towards symptoms, which do not derive from somatic dysfunction, drawing parental attention towards the feelings their child experiences, and learning to freely express themselves and share emotions.

## **CONCLUSIONS**

Parents of psychologically troubled children presenting habit cough and other forms of somatoform autonomic dysfunction play an enormous role in the treatment process and should be active during psychotherapy. They should be encouraged to look for reasons of their child's disease, whether the problem concerns sibling relationship, parental conflicts, underestimation, or lack of attention. They should teach offspring how to react under stress, make an effort to spend more time together as a family, and provide their children with a healthy and balanced diet. Communication is the key to building a firm relationship based on trust, closeness, and understanding.

#### CONFLICT OF INTEREST

The authors declare no conflict of interest.

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