

# Factitious Disorder Imposed on Another or Child Abuse – the Case of Anorexia Nervosa (Former “Anorexia by Proxy Syndrome” – a Review and Case Studies)

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## Abstract

**Introduction:** Anorexia by proxy is a very rare and a seldom discussed disorder. The syndrome is a type of the “factitious disorder imposed on another” or as it was formerly known the “Munchausen by proxy” syndrome. The syndrome is on the border with child abuse and best understood via case studies.

**Method:** An extensive search was performed in PubMed and Google Scholar with the key phrase “anorexia by proxy”; furthermore keywords of “anorexia” and “Munchausen” were used as well.

**Results:** Using various keywords, we found twelve previously published papers in peer-reviewed journals that matched the exact topic of this article; most of them were case studies published from 1985 until 2013. Original reports of three cases are also included from our clinical practice.

**Conclusion:** Our report reflect some common features such as the extreme low body weight, the direct life threatening situation, the chronic clinical course, the bad outcome and more interrupted therapies with deficient psychotherapeutic compliance in these syndromes. Altogether the role of the family and parents is crucial in anorexia by proxy.

**Keywords:** Factitious disorder imposed on another; Munchausen by proxy syndrome; Anorexia nervosa by proxy; Case vignettes

## Introduction

### The Munchausen and the Munchausen by proxy syndromes

The term Munchausen’s syndrome was first mentioned by Asher named after the exaggerated stories of the Baron von

Munchausen (in English literature and in the following: Munchausen syndrome; in German, originally: Munchhausen; some studies refer to Munchausen or Munchhausen syndrome) [1]. Patients with Munchausen’s syndrome present apparent acute symptoms and tend to depict them with plausible although dramatic histories. These complaints are factitious, mostly made up on falsehoods, and are often based on hidden motivations such as getting into the center of medical or personal interest.

In its alternative, the Munchausen syndrome by proxy (MSBP), the patient does not claim complaints on himself/herself, but fabricates fictitious information about his/her child’s physical state, or even directly produces symptoms to the child by mistreatment or poisoning [2]. Meadow summarized MSBP into four points. First, the illness is fabricated or induced. Second, the child is presented to the doctor [3]. Third, the illness is absent when the child is separated from the perpetrator. Fourth, the perpetrator is acting out of a real need. In such cases, clinicians need to detect either the caregivers’ false reports, or the fact that the child’s pathological symptoms are direct consequences of the caregivers’ actions, in some cases even both falsifications [4]. Although the symptoms of MSBP are not certainly specific and their detection in clinical settings incorporates subjective notions, MSBP is rated as a serious psychiatric disorder [5,6]. As its consequence an involved child can be harmed either from unnecessary treatments or from direct parental mistreatment, therefore most studies identify it as a severe and deceptive form of child abuse [7,8]. In addition Schreier highlighted the compulsive quality of this mistreat [9].

### Factitious disorder imposed on another – diagnostics

The newest nosological system, the DSM-5 now classifies this syndrome within the category of “somatic symptom and related disorders”, diagnosed as “factitious disorder imposed on another” (FDIA). The diagnosis cannot be given for the victim, only the perpetrator receives it when the following symptoms can be observed [10]:

A: falsification of physical or psychological signs or symptoms, or induction of injury or disease, in another, associated with identified deception.

B: the individual presents another individual (victim) to others as ill, impaired, or injured.

C: the deceptive behavior is evident even in the absence of obvious external rewards.

D: the behavior is not better explained by another mental disorder, such as delusional disorder or another psychotic disorder. The diagnosis refers to an objective falsification of illness symptoms, not only to hidden motivations for that, and shall specify, whether it was a single episode of FDIA, or the episodes were recurrent.

Although individuals with FDIA may have distress and serious functional impairment in causing harm to others, relatives and health care professionals have rather adverse impressions about it, as some aspects of this disorder represent criminal behavior. Perhaps as a consequence of these symptomatic features the ICD-10 does not classify it within factitious disorders, but suggest it as a form of not otherwise specified child abuse [11]. As the child is necessarily presented in the health care professionals shall make sure to avoid being a part of this abusing relationship [3].

Beyond the above mentioned characteristics the nature of FDIA involves the parent's psychopathological symptoms (e.g., strong enmeshment, unconscious anger towards the child, the symbolic statement of 'cease to exist' in the child's diminishing body). The parent uses the child as the extension of his/her own ego – perhaps this mechanism enables the "imposed on another" phenomenon, thus the parent imposes psychosomatic disorder on the child instead of herself/himself.

### Motivations in MSBP/FDIA

Although motivations and dynamics behind the disorder have not been perfectly clarified yet, the child's disease certainly gives the opportunity to demonstrate fake parental skills and to pretend affectionate care [6]. Therefore, it seems that a central motivation of caregivers with MBPD/FDIA is to use the child and the fabricated disease for attention seeking and pseudo-superiority over other caregivers [6,10]. This takes possession of the respect and reinforcement from the deceived professionals [2,3]. Thus, symptoms are supported by secondary gains such as money, drop-out from responsibilities, or most prevalently presenting oneself as a good caregiver, welcoming the attention and appreciation of the health care personnel [10]. Dye and colleagues emphasize that the motivation is not based on external incentives like economic gains [12].

### Characteristics of the families with MSBP/FDIA

In some cases the disorder begins after the child's hospitalization. The prevalence of the disorder is uncertain owing to its deceptive quality. However, the DSM-5 refers to 1% estimated prevalence including all factitious disorders, of which only a subtle part consists of the FDIA patients [10]. Based on the analysis of 41 MSBP case studies conducted by Sheridan,

symptoms were produced by the mother in more than 75% [13]. In his review book Feldman revealed physical or sexual abuse, parental rejection, lack of love or attention and other early traumas of the mothers with MSBP/FDIA [14]. Psychiatric treatments and factitious disorders were reconstructable from their history in 80% of these mothers, and 60% of them have tried to commit suicide. Among other psychopathological symptoms, personality disorders, predominantly histrionic and borderline types were observable in the mothers [7]. The children primarily suffer from rejection, guilt and the break of confidence with the caregiver [12,15].

As the symptoms and the attached behavior hold secondary gains to the caregiver, suggesting homeostatic functions of the disorder, it is worthy to look on the MSBP symptoms from a systemic approach. Knowing the characteristics of psychosomatic families [16], we may interpret the falsification of symptoms, the poisoning and the abuse of the child as a symbiotic relationship or a pathological enmeshment of intrafamilial boundaries. These qualities are relevant in eating disorders as well. Even the DSM-5 emphasize that FDIA shows similarities to eating disorders [10].

## Method

The deeply qualitative phenomenon of this disorder can be most thoroughly reflected via case studies, thus the literature on ABPS mostly consists of case studies. A literature review was conducted. When searching PubMed with the keyword "anorexia by proxy", altogether 24 results were shown until 15 April 2020, while by using the keywords of "anorexia" and "Munchausen" with AND Boolean operator, 16 matches could be found. Using the open search engine of Google Scholar with the keywords "anorexia by proxy" altogether 11 articles had relevance from all results. Counting the coincidences of search results, only 14 papers matched the exact topic, most of them were case studies published from 1985 until 2013.

## Anorexia by proxy

Anorexia nervosa (AN) is one of the most prevalent and severe psychiatric disorders. Some characteristic features of the family system seem to play an important role in AN, reflected by the fact that family therapy is suggested as the first treatment option for young anorectic patients [16,17]. However, blaming the family as a cause of eating disorder holds pitfalls, as the family is our biggest resource in the treatment [18]. AN has a multiform nature, showing more subtypes [19]. One of its rare, but highly exciting subtypes is the "anorexia by proxy" syndrome (ABPS), raising several questions about family issues as compared to the more prevalent forms of AN. ABPS is formed similarly to the pathomechanism of MSBP.

The classic Munchausen's syndrome in AN was first described in 1993 by Burge and Lacey, in a perhaps personality disordered case [20]. Ebeling and colleagues claimed that anorectic symptoms are typical as parts of self-induced factitious disorders [21]. Bulik and colleagues reinforced that cases of comorbid AN, and Munchausen's syndrome are although rare, but existing phenomena [22]. The extreme relevance of the rare AN induced

on another or ABPS is reflected from Sheridan's review on the MSBP, as the second most frequent disorder of the victims were induced AN or feeding problems (24.6% of all case reports) [13].

Birmingham and Sidhu highlighted that normal AN can be distinguished from ABPS when paying special attention to the classical anorexic features such the intense fear of weight gain, body weight and shape misperceptions as they might be missing in by proxy cases [23]. However, certain abnormal behaviors or the weight loss itself can be similar. On the basis of these features these authors suggested a three-step algorithm for diagnosing ABPS:

1. Is there a non-factitious disorder that can explain the (anorexic) symptoms?

2. a. If yes, psychiatric cause shall be treated according to the proper guidelines. b. If no, all previous medical reports shall be obtained including hospital admissions, treatments, and surgeries. Therapist should clarify, whether the patient or his/her parent has asked for discharge from the hospital against medical advice.

3. Investigating whether the child's symptoms are congruent with MSBP, including inconsistencies and behaviors.

### Former case studies on anorexia by proxy syndrome

The first case study was published by Katz and colleagues reporting on a 17-year-old anorexic patient (body mass index [BMI]: 15.6) with a severely underweight mother, who described her daughter as overweight. Although it is known that the AN is more prevalent in the family members of affected individuals, suspicion was specially increased, as the daughter had no severe body image disorder, was not preoccupied with her body size. She was aware of her thinness, and felt unable to cope with being underweight, but as she improved in the therapy, her mother began to feel distress that she would also put on weight during her daughter's weight restoration, and tried to convince her daughter that she is getting too heavy. As the mother's extreme preference on thinness seemed to serve a maintaining role in the daughter's disorder, Katz and colleagues described the phenomenon as "anorexia nervosa by proxy" [24].

Money reported the case of a 16-year-old boy, who was abused by his stepparent and was as underdeveloped as an 8-year old child, and his state almost perfectly normalized after the separation from the stepparents. The author directly suggested that the MBPS shall be applied in certain cases of AN [25].

Griffith and colleagues reported a case of a 52-year-old severely weak mother, who lost 20 kilograms in 9 month and had difficulties in swallowing foods and liquids. During the examinations persecutory delusions about food poisoning by her husband were observed [26]. The mother indicated that her 22-year-old daughter shared her suspicions, and she kept her 8-year-old son at home and underfed him. Therefore the authors suggested the case as a delusional disorder by proxy, or as its more common synonym, folie a deux, is a rare clinical syndrome, where the delusions are transmitted from the originally ill "inducer" to another person. In line with this, Wehmeier and

colleagues emphasized the importance of family processes in the formation of symptoms, and referred to the phenomena as "folie a famille" [27].

Scourfield presented three cases when the mothers' AN was accompanied by their children's abnormal eating behaviour, therefore he suggested that being a child of a mother with AN poses an increased risk for having MSBP [28].

Honjo presented a case about a severely malnourished 25-month-old child, whose mother complained about the child's overeating periods since the first year of her baby. As the mother was afraid that her child is going to put on overweight, she put serious restrictions into place regarding feeding her baby. The mother was apparently suffering from atypical AN, and her fearful belief that her child would eat too much seemed to be a certain projection of the mental features of AN on her child, showing a severe early case of ABPS [29].

Moszkowicz and Bjornholm reported about a two-year-old boy and his anorexic mother with personality disorder, depressive mood and paranoid traits, who have refused to feed her child. The child suffered from food deprivation, psychosocial impairment; the mother-child relationship was severely disturbed. Therefore the displacement of maternal AN was hypothesized as a possible psychodynamic explanation [30].

Russell and colleagues have frequently measured the weight and height of eight anorexic mothers. According to their results, out of the fourteen children nine suffered from food deprivation while only five were unaffected. Even though the presence of ABPS was not suspected by the authors, these mother-child dyads showed similarities to the previous cases, as the mothers' pathology was highly influential on their children's physical state [31].

Zamora and de Ugarte Postigo published a case of a 19-year-old severely anorexic patient (BMI: 11.5), whose eating problems appeared at the age of 10 after being sexually abused. Her mother lost her job coincidentally. The patient and her mother refused to be weighed; the mother explained the thinness was related to stress. However, no body image misperception could be observed at the patient who gave her consent to the nutrition at the hospital. The mother seemed to try to maintain a permanent childhood and demanded her admission to the paediatrics [32].

Birmingham and Sidhu also referred to a case of concurrent AN and MSBP about a 21-year-old female suffering from binge-purge type of AN with 19 – often involuntary – hospital admissions in three years [23]. Her mother advised her to reject the clinical treatment and enrolled her in a modeling school. The patient has recovered after she had moved out from the parental home.

Sadock and Sadock described two cases of anorexia by proxy: in the first one, the perpetrator was an anorexic mother, who restricted her child's nutrition due to her own anorexic beliefs and excessive fears of gaining weight. In the latter one, a paranoid father with a history of psychotic episodes was scared that his son might be poisoned by breast milk [33].

Sirois also presented a case on anorexia by proxy in French; however, the paper could not be reached [34].

### Pathomechanism

A vast number of studies underline that parental attitudes to weight and shape strongly influence their children's body concerns [15]. The "transference" or at least the increased risk for AN symptoms as a child of a mother with anorexic features can be explained by the fact that mothers with eating disorders were highly sensitive to their babies' size. The mothers' eating pathology and their associated body image disorder negatively affect their perceptions about their children. They often misperceived their one-year-old children's size. Therefore, in some cases the baby's poor development could be reasoned with the mothers' eating disorder pathology and associated perceptions and the outcome feeding patterns [35].

In these cases, the parent's psychopathology interferes the normal parenting behavior, as they force their psychopathological behavior to their child. This raises the question, whether the "real perpetrator" supposed to be the parent or the pathological process itself?

According to the overview of Patel and his colleagues there are several mechanism how parenting can put impact on the development of the children's eating pathology; from which the following pathways may play an important role in ABPS [15]. First, the parent's eating pathology can directly influence parenting. Parents may wish their children to be thinner; therefore they may force eating patterns congruent with their false beliefs, as it was observed in case of anorexic mothers [31]. Second, the parent's eating disorder can also indirectly influence the child through being preoccupied with food intake, mealtimes, body weight and shape, thus the child's eating behavior and body concerns can be negatively affected. Third, more mildly, the parent can show a poor role model in eating behavior or body attitudes, through own dieting.

Considering exact cases of ABPS, even more severe contributions can be suspected: direct criticizing for body weight and shape, even direct deprivation of normal food intake can be present. Then as in every MSBP case they take their children to doctors driven by own fears or secondary gains [3]. Perhaps a question of high therapeutic relevance could be: it is worth for the caregiver to bring the child to the doctor, but would it be worth letting the child recover from ABPS? How could this ambivalence of taking huge indirect or even direct role in the child's AN, then presenting her/him in medical setting, with the hidden intentions in the background of maintain the child's disorder influence the therapeutic approach?

### Treatment

The management of such factitious disorders imposed on another should generally involve the treatment of the caregiver and the treatment of the child [12]. According to Sanders and Brush sometimes separation from the caregiver as well as the long term psychiatric admission of the child with comprehensive management is required [36]. Children may benefit from art or play therapy, and from discussion about rejection, guilt, or if

they are present, misperceptions. Russell and colleagues revealed that the catch-up growth of underfed children of anorexic mothers was associated with the treatment engagement of both the mother and the child [31]. Long-term treatment was required for the mother as well, combining it with family therapy and hospital admissions. Stirling suggested the following advices for treatment. First, review all medical charts and provide expert consultation. Second, cooperate with each involved professional and apply one with experience in child abuse. Third, when it is needed, professionals shall not hesitate to involve social service agencies. Fourth, the whole family shall be involved in the treatment, and the whole family should guarantee the safety of the victim in their home further on. Fifth, effective behavioral management techniques for the child and family therapy can be applied [37].

### Case vignettes

Our case studies are from a department specialized in eating disorders between 1990 and 2001 in Miskolc, Hungary. During these years more than 300 patients were treated in the facility. Among them many suffered from severe AN. We found multiple similarities in case of three of our patients where the family had a central role in their severe illness. We suggest these cases meet the criteria for ABPS. All displayed names in the following case studies were changed.

#### Case 1

The 20-year old Julia was admitted to the hospital in 1990. She was severely anorectic at that time since three years. At admission her weight was 27 kg but within a few months' time it decreased to 25 kg (height: 156 cm, BMI at admission: 11.1). During previous years she and her family refused all offered psychotherapies. At the end she was admitted to the hospital because her health condition was life threatening. In Julia's very enclosed family all her uncertain aspirations for independence have failed. She gave her salary as well as her disability benefits later to her family, from which sum they bought clothing for her younger sister. The generational and psychological boundaries did not develop. Family members constantly questioned each other's feelings; they did not follow up agreements. From Julia's life story it was clear that even her birth was a disappointment for her mother as she wished for a boy. The family often identified her with their deceased baby boy, who was their hoped support in life. During our visit at the family we saw that Julia shared her room with her 13-year-old, obese sister, who occupied  $\frac{3}{4}$  of the room, meanwhile Julia only had  $\frac{1}{4}$  for herself. When Julia considered moving out of the family home, her father said the following things to her: "I rather let my one arm to be cut off than letting my daughter to move out." Therefore, Julia stayed at home, her weight increased to 35 kg after a long therapy. During the years due to her relapses she had to be admitted three more times to our unit. She lived a chronic, anorexic life with her mother; her father died in the meantime.

## Case 2

When the 21-year old Sonja visited our unit in 1993 in the company of her parents her weight was 22.4 kg (height: 168 cm, BMI: 8.3). Her anorexia had a seven-year history. Her multiple admissions to institutes were constantly interrupted by her escapes. Shortly after arriving from the 400 km long journey to the unit, Sonja's mother told us crying that she will take her daughter right away as: "She is totally going to be devastated here". The family lives on a ranch. The parents were very young and had no secure financial status when they had to get married, as the mother was pregnant with Sonja. During the years their relationship worsened, they had more and more conflict. Sonja's sickness started when she moved to a dorm to be able to attend her studies. She was looking for her freedom but she was also clear with her buffer role in the family. First, she smoothed the tension between the parents. Furthermore, she amply took her part in the family work, which was also expected of her (with just 25 kg she hoed on average five hours a day). The family was characterized by its members only broadcasting negative feelings towards each other. After Sonja gained 7 kg in our unit, she escaped and ran home. After this she appeared on different psychiatric units in the country, but we don't know about any essential change.

## Case 3

The 19-year-old Rose was admitted to our unit because in recent times she only consumed liquids, her body weight was 26 kg (height: 160 cm, BMI: 10.2). During the five years of her illness she also had an emergency admission. However, on the last occasion her mother took her home with the reason that she should rather die at home than go mad in a hospital. The family could not establish a separate home for themselves; therefore, they lived with the grandmother, with whom the parents did not even talk for a long time as they had outstanding financial debates. This family home had two rooms, in one room was living Rose with the grandmother. The grandmother not only shared her living space with Rose but also the one portion sized meals she delivered from the local kindergarten. The tension between the inhabitants of the two rooms got eclipsed via Rose's constantly decreasing weight. In our unit after life-threatening medical complications (cardiac arrhythmia) she managed to gain 19 kg. However, she remained in a mentally impaired condition, especially when she decided to go home following her and the family's demand. According to our information a year after her discharge she lived with her grandmother, her weight did not decrease. Later she also sent a picture of herself; her condition seemingly has been resolved.

## Discussion

### Common features of the cases

Our three cases show several common features such as the extreme low body weight, the direct life threatening situation, the chronic clinical course, the bad outcome, and more interrupted therapies with deficient psychotherapeutic compliance. This bad compliance led to arbitrary drop-outs with

the leading role of the parents. Patients had lower socioeconomic status in comparison with most anorexics. The financial value of food was emphasized supposedly owing to the families' low socioeconomic status. Family structure was rigid with symbiotic parent-child relationship, which was a burden of compliance. Interpersonal relationships were characterized with destructive parental messages. The parents' marriages were charged with emotional and financial difficulties, and the failure of their relationship was obviously reflected by their child. Perhaps the child's unconscious rejection was the consequence of the marital disharmony. External family boundaries were extreme rigid, while generational ones were enmeshed. The marriage was held together with the child's disorder. The primary difficulty in the therapy was the overall detectable resistance or refusal. Children's resistance was apparent as well, they were reluctant to express any form of aggression as it would have meant the surrender from the symbiotic relationship. Parents tried to interrupt the course of the therapy with emphasizing their children's indispensable role in the family.

In our cases, therapy primarily aimed to prevent the direct mortal danger with increasing body weight as a first step. Later on other therapeutic methods, face-to-face, group, and family therapies were applied. In two cases only small changes could be induced: the weight increase was not followed by psychological development. The third case was followed with full remission after leaving the hospital.

### Other potential manifestations of FDIA in eating disorders

The link between childhood maltreatment including rape or sexual abuse and eating and weight problems is well-known [38]. Compulsions related to eating, like behavioral features of orthorexia nervosa, often restrict the child's feeding and nutrition we have already met such anamnestic data in our practice). This may correspond to FDIA. Andreis described an important introductory case of "orthorexia by proxy", in which a one-year-old child in life threatening condition (5 kilograms, growth below 3rd percentile, hypotonia nad psychomotor impairment) was hospitalized. It turned out that an inflexible vegan diet was imposed by the parents as the cause of undernutrition [39].

Characteristics of FDIA can be suspected with regard to obesity as well. Many parent overfeed their child that endangers the child's health. This phenomenon is more explicit in case of 'feederism' described by Giovanelli and Peluso [40]. In feederism, fat fetishism can be observed. The body fat (and the increasingly obese partner) becomes the object of sexual attraction. The feederism consists of a combination of fetishism, where sexual gratification is obtained not only from the fat itself, but also from the process of feeding or gaining. The authors discussed this phenomenon on the basis of the sexuality. From another point of view, feederism can be regarded as a harmful activity relating to the partner's health. In this respect, it can meet the criteria of FDIA.

The role of fashion industry agents also can be considered as a part of the FDIA spectrum: they expect the models to be extremely thin, therefore often force them having strong diets and excessive exercises, and warn with the cancellation of job opportunities, if the model's hip exceeds the 90 cm border. In this case the direct aim of thinness is explicit, although not psychological, but financial interest can be found in the background of the drive to impose disorder on another. However, the presence of abuse can be suggested in this case as well [41]. The same tendency might be true for the coaches of certain sports. One of our patients was a top athlete in rhythmic sports gymnastic with the competition weight of 38 kg. If she had reached 39 kgs, her coach asked her to omit dinners. A more common precedent of misusing athletes' body is doping. These cases raise the question of medicalization: where is the border of permissible body control, and where does the misuse of body start? The border between harmful behaviors based on psychological gains and apparent abuse is not always easy or obvious to draw. In case of abuse legal steps are required (e.g. involvement of child protection).

### The spectrum of FDIA and abuse in eating disorders

Authors of present paper suggest using a spectrum approach in distinguishing cases of abuse or FDIA in AN. Firstly, on one end of the spectrum the classical form of AN can be found with its accompanying psychosomatic family features described by Minuchin [16]. These family characteristics are certainly unconscious; however they contribute to the onset and maintenance of the pathological process. Secondly, another reconfirmed case is, when the parent's body image disorder does not go for him/her, but to the child, therefore the parent rather wants to change the child's body. Thirdly, a more direct effect of the parent's psychopathology can be suspected, when he/she does not want the child's treatment to start or to be continued – based on a symbiotic relationship. The parent does not have insight about the pathology in spite of the severe symptoms. Our cases can be classified into this category. Fourth time, an even more direct effect is found, when the mother projects her own anorectic behavior onto her daughter, and criticizes her body weight and shape even, when these qualities of the child are perfectly normal. Fifth time, a strong and explicit case of abuse is present, when the parent makes his/her child starve based on his/her body image disorder, therefore directly contributes to the child's AN. This corresponds to the most criteria of FDIA. The same is true for the feeders – in the opposite direction. Furthermore, the parent's primum eating or body image disorder can be combined with the child's craving and compulsive compliance to his/her parent. Perhaps this is the reason of the lack of evidence for the child's real body image disorder in many case studies of AN imposed on another. Sixth, on the other end of the spectrum the harsh and criminal abuse can be found, when the parent does not feed his/her child – not because of the presence of a body image disorder, but – for example – as a punishment.

## Conclusion

In the previously published cases parental responsibility seems to be more definite, purposefulness can be observed. In our cases direct parental purpose is less evident, but the features of our cases match several criteria of ABPS. A certain part of the cases' characteristics are observable with a less striking manner in classical AN (e.g., symbiotic relationships, family functions of the disorder). With discussing cases of AN by proxy authors of the paper would not like to blame parents of anorectic children, as the family is the greatest resource for recovery, but aim to highlight a spectrum of parental involvement. In these cases the role of the family, and the parents' assistance to the development and maintenance of the disorder is apparent. These parental features should be taken into account in the analysis of family dynamics, demonstrating special relevance in determining certain interventions during the therapy.

## Declaration of interest

The authors declare that they have no competing interests.

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The referred cases were lead in correspondence with the ethical principles of the Declaration of Helsinki and the Ethical Codex of the Hungarian Psychological Association. The referred patients had given their written informed consent to be involved in the anonymous case vignettes before their writing and publication. Present paper is based on literature evidences, case studies and our own clinical experiences. The work not been published previously and it is not under consideration for publication anywhere else. All mentioned data and full materials are freely available from the correspondent author.

## Author contribution

FT formulated the original idea of this paper, and was primarily responsible for the cases, the structure, the discussion and conclusions of the manuscript. TDSz was mainly responsible for the introduction, methods parts, pathomechanisms and treatment parts of the manuscript. KSz contributed to synthesis of the literature data, wrote the case vignettes, and participated in writing the last draft. IÁ contributed to the study concept, data acquisition and to the interpretation. All authors have critically revised and approved the final version of the manuscript.

## References

1. Asher R (1951) Munchausen's syndrome. 1: 339–441.
2. Meadow R (1997) Munchausen syndrome by proxy the hinterland of child abuse. 310: 343–345.
3. Meadow R (2002) Different interpretations of Munchausen syndrome by proxy. Child Abuse & Neglect. 26: 501–508.

4. Rosenberg DA (1987) Web of deceit: a literature review of Munchausen syndrome by proxy. *Child Abuse & Neglect*. 11: 547–563.
5. Schreier H (2004) Munchausen by proxy. *Current Problems in Pediatric and Adolescent Health Care*. 34: 126–143.
6. Ali SN, Ali AN, Ali MN (2015) Münchhausen syndrome by proxy: the overlooked diagnosis. *J Ayub Med Coll Abbottabad*. 27: 489–491.
7. Bools C, Neale B, Meadow R (1994) Munchausen syndrome by proxy: a study of psychopathology. *Child Abuse & Neglect*. 18: 773–788.
8. Gehlawat P, Gehlawat VK, Singh P, Gupta R (2015) Munchausen syndrome by proxy: an alarming face of child abuse. *Ind J Psychol Med*. 37: 90–92.
9. Schreier H (1992) The perversion of mothering: Munchausen syndrome by proxy. *Bull Menninger Clin*. 56: 421–437.
10. American Psychiatric Association. APA. Diagnostic and statistical manual of mental disorders – Fifth edition (DSM-5). Arlington: American Psychiatric Publishing;
11. World Health Organization. WHO. International statistical classification of diseases and health related problems. ICD-10. Geneva: World Health Organization 2004.
12. Dye MI, Rondeau D, Guido V, Mason A, O'Brien R (2013) Identification and management of factitious disorder by proxy. *Int J Nursing Practice*. 9: 435–442.
13. Sheridan MS (2003) The deceit continues: an updated literature review of Münchhausen syndrome by proxy. *Child Abuse & Neglect*. 27: 431–451.
14. Feldman MD. *Playing sick? Untangling the web of Munchhausen syndrome, Munchhausen by proxy, malingering, and factitious disorder*. New York: Routledge 2004.
15. Patel P, Wheatcroft R, Park RJ, Stein A (2002) The children of mothers with eating disorders. *Clin Child Fam Psychol Rev*. 5: 1–19.
16. Minuchin S, Rosman BL, Baker L (2009) *Psychosomatic families: anorexia nervosa in context*. Cambridge: Harvard University Press.
17. Hay P, Chinn D, Forbes D, Madden S, Newton R, et al. (2014) Royal Australian and New Zealand College of Psychiatrists clinical practice guidelines for the treatment of eating disorders. *Austr New Zeal J Psychiat*. 48: 977–1008.
18. National Institute for Health and Clinical Excellence. NICE. *Eating disorders. Core interventions in the treatment and management of anorexia nervosa, bulimia nervosa and related eating disorders: a national clinical practice guideline*. London: NICE 2004.
19. DiNicola VF (1990) Anorexia multiforme: self-starvation in historical and cultural context. *Transcult Psychiat Res*. 27: 165–196.
20. Burge CK, Lacey JH (1993) A case of Münchhausen's syndrome in anorexia nervosa. *Int J Eat Disord*. 14: 379–381.
21. Ebeling O, Ott S, Michel O, Stennert E (1996) Self-induced illness in ENT medical practice. Artefacts as a contribution to differential diagnosis of unusual illness courses. *HNO-Mitteilungen*. 44: 526–531.
22. Bulik CM, Sullivan PF, Fear JL, Pickering A (1996) A case of comorbid anorexia nervosa, bulimia nervosa, and Munchausen's syndrome. *Int J Eat Disord*. 20: 215–218.
23. Birmingham CL, Sidhu FK (2007) An algorithm for the diagnosis of Münchhausen's syndrome in eating disorders. *Eat Weight Disord*. 12: 74–77.
24. Katz RL, Mazer C, Litt IF (1985) Anorexia nervosa by proxy. *J Pediat*. 107: 247–248.
25. Money J (1989) Paleodigms and paleodigmatics: a new theoretical construct applicable to Munchausen's syndrome by proxy, child-abuse dwarfism, paraphilias, anorexia nervosa, and other syndromes. *Am J Psychother*. 43: 15–24.
26. Griffiths RA, Beumont PJV, Beumont D, Touyz SW, Williams H, et al. (1995) Anorexia à deux: an ominous sign for recovery. *Eur Eat Disord Rev*. 3: 2–14.
27. Wehmeier P, Barth N, Remschmidt H (2003) Induced delusional disorder. a review of the concept and an unusual case of folie à famille. *Psychopathol*. 36: 37–45.
28. Scourfield J (1995) Anorexia by proxy: are the children of anorexic mothers an at-risk group.? *Int J Eat Disord*. 18: 371–374.
29. Honjo S (1996) A mother's complaints of overeating by her 25-month-old daughter: a proposal of anorexia nervosa by proxy. *Int J Eat Disord*. 20: 433–437.
30. Moszkowicz M, Bjørnholm KI (1998) Factitious illness by proxy presenting as anorexia and polydipsia by proxy. *Acta Paediat*. 87: 601–602.
31. Russell GFM, Treasure J, Eisler I (1998) Mothers with anorexia nervosa who underfeed their children: their recognition and management. *Psychol Med*. 28: 93–108.
32. Zamora MC, de Ugarte Postigo L (2007) Anorexia nervosa: a probable factitious disorder by proxy. *Eur Psychiat*. 22:178.
33. Sadock BJ, Sadock VA (2009) *Kaplan and Sadock's comprehensive textbook of psychiatry*, 9th ed. Philadelphia: Lippincott Williams & Wilkins. p: 1960.
34. Sirois F (2011) Anorexie mentale par procuration: une présentation inhabituelle. [Anorexia nervosa by proxy: An unusual case.] *Presse Med*. 40: 547–550.
35. Stein A, Murray L, Cooper P, Fairburn CG (1996) Infant growth in the context of maternal eating disorders and maternal depression: a comparative study. *Psychol Med*. 26: 569–574.
36. Sanders MJ, Brush B (2002) Forensic assessment of illness falsification, Munchausen by proxy, and factitious disorder, NOS. *Child Maltreatment*. 7: 112–124.
37. Stirling J (2007) Beyond Munchausen syndrome by proxy: identification and treatment of child abuse in a medical setting. *Pediatrics*. 119: 1026–1030.
38. Brewerton TD (2016) Food addiction as a proxy for eating disorder and obesity severity, trauma history, PTSD symptoms, and comorbidity. *Eat Weight Disord*. 22: 241–247.
39. Andreis E (2016) Il dilemma del bimbo sottopeso sottratto ai genitori vegani [The dilemma of the underweight child hospitalized against his parents' will]. *Corriere della Sera*. 141: 21.
40. Giovanelli D, Peluso N (2006) Feederism: a new sexual pleasure and subculture. In: Seidman S, editor. *The Handbook of New Sexuality Studies*. Oxford: Routledge. p: 309–314.
41. Bogár N, Túry F (2019) *The fashion industry and eating disorders: the dangers of the catwalk*. Cambridge: Cambridge Scholars Publishing.