

Comparative Study of the Family Structure of Asthmatic and Panic Disorder Young People

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The dynamic system approach offers a good framework for better understanding the operation of families. However, the member's involvement in the events is hierarchical. The ability to change also has an important role in the life of the family. The damage or lack of this flexibility can lead to symptoms by members. „The symptom is talking about something... expresses a kind of symbolic meaning” (Onnis, 1993, page 10). The child's illness is not simply the manifestation of symptoms, but it is also a solution to some kind of a problem within the structure (Bárdos, 2003). The four-dimension model of coping by Bárdos (2003) gives us a good interpretation of somatization and psychosomatic disorders. Asthma is a classic psychosomatic disorder, while panic disorder is on the border of psychosomatic disorder and somatization problems. In my research I used Gehring's (2010) Family System Test (FAST) to explore the family structure of asthmatic and panic disorder young people in different kinds of situations. In most cases cohesion was the highest in the healthy population, while hierarchy was increased in the case of asthmatic patients. The flexibility of cohesion and hierarchy shows a tendency among the groups. Both factors are inflexible in the asthmatic patients' families. So what conclusions can be drawn from these observations? The stress within the family was embodied in different but related forms by the members and manifested in various symptoms. Patients with asthma can be characterized by inward orientation and repression, while patients with panic disorder can rather be characterized by outward orientation and panic attacks. The typical and ideal family representations show that asthmatics patients can balance conflicts within the family, while people with panic disorder increasingly tried to get their freedom (detachment). Adolescence is the first period when panic attacks can occur for the first time in a person's life, and this is the stage in life when the young person has to be independent. However, the poor conditions and learned helplessness versus developing (and distorted) cognition cannot support the individual to cope with his/her buried issues and the desire for liberation. Thus the crisis can lead only to a desperate attack. However, further investigation is necessary in order to interpret the results in a broader context, by means of which a more effective intervention can be planned.

Keywords: dynamic system approach, family structure, mental representation, asthma, panic disorder

Human behaviours were interpreted by science through linear process models over a long period. However, over time it became clear that dynamic system-based models seem to offer a better framework to understand a number of phenomena. The systems thinking is useful in the field of short-term (e.g. dyadic interactions) and long-term (e.g. changes of interactional patterns) processes occurring in the life of the family (Geert & Lichtwarck-Aschoff, 2005), and it has therapeutic implications, too (Minuchin, Rosman, & Baker, 1995; Bárdos, 2003). After all, just as the change of the part affects the whole and thus specific internal dynamics is manifested between the parents and the children (Dallos & Procter, 2001; Bárdos, 2003), the internal states of the organism also result from the dynamics of the particular situation (Szokolszky, 1998). Thus the system-oriented perspective of the family and its holistic approach provide us with the opportunity to understand the members' mental states on a deeper level (Watzlawick, Beavin, & Jackson, 2009).

Development and change are important characteristics of open systems. Off-balanced systems seek to re-organize as soon as possible, or to create a more modern design of the pattern, which facilitates better adaptation to the changed environment (Minuchin, 1985). However, the paths of the stages of the individual life cycles and the development of the family cross each other in a very complex way. While well-functioning families undergo certain changes during their life, dysfunctional families are characterized by the deficit of dynamic transformation, the problem of conflict management, the uncertainty of the boundaries between the subsystems, furthermore the overprotection of the child(ren) is also observable (Minuchin, 1985). Gehring and Marti (1993) compared family structure representations of psychiatric outpatients and people with healthy status with each other. They found a lower level of coherence and a higher level of hierarchy in the clinical respondents' group.

Both the intra- and interpersonal processes can be manifested in symptoms in the form of "words" with a symbolic or metaphoric meaning, expressed through the language of the body (Onnis, 2008; & Csaba Molnar, 2009). After all, interpersonal communication is indispensable among people (Buda, 1994). "The symptom... talks, communicates: it expresses a kind of symbolic meaning... combines, collects and summarizes the meaning of the characteristics and rules of its communicational and relational environment" (Onnis, 1993, page 10). The family has a significant role – especially in childhood – in the development of the symptoms/syndrome (Bárdos, 2003).

Asthma (asthma bronchiale), a widespread disease in our days – the disorder which is in the focus of my research and which can be characterized by heavy breathing – is one of the "classic seven" known psychosomatic disorders. Asthma is not a single disease, it is rather said to be the final stage of different psychical and somatic factors (Magyar, Pálffy, & Bártfai, 2006). Its common symptom with panic disorder is heavy breathing. It is remarkable that the most frequent psychiatric disorder among patients with asthma is panic disorder with 6.5 to 24% prevalence (Peski-Oosterbaan, Spinhoven, Van der Does, Willems, & Sterk, 1996; Szendi, 2009).

In the opinion of Bárdos (2003), the individual's coping strategies have a great importance in the development of the disease. Stress is a major factor in asthma and panic disorder, too. However, while asthma is a pure psychosomatic disorder, panic disorder is partly regarded as a somatic disorder, which is clearly shown by Bárdos's (2003) four-dimension coping model. So while asthma is a more inwardly oriented, suppression-based disease, panic disorder is rather an outwardly oriented disease with the elements of awareness.

But what about the family structure and its perception? Is it different for people with psychosomatic (asthma) and somatic disorders (panic disorder)? I am interested in exploring the factors which are obviously in close interaction with each other and influence whether asthma turns into panic disorder over time. In my study I would like to explore the new aspects of these disorders and extend our existing knowledge with the comparison of the mental representations of the family structures between the two groups of patients.

Hypotheses (1,2)

On the basis of similar earlier studies it was assumed that the members of the groups of patients consider their families more incoherent and more hierarchical than healthy individuals. Furthermore, these families were presumed to be more inflexible with unbalanced family structures (H1), and I also assumed that the representations of the patients with panic disorder would be rather unbalanced compared with either the other patient group or the healthy population (H2).

Methods

Participants

Twelve young people with asthma (without familial clustering of asthma) (age: 19.5 to 28 years, M: 21.625 SD: 2.2475; 1 man/11 women) and twelve young people with panic disorder (and

asthmatic history) (age: 19.5 to 26 years, M: 21.917 SD: 1.9521; 12 women) participated in the experimental groups. The criterion of inclusion in the study was the previous medical diagnosis. In the control group there were 57 young people (age: 17.5 to 29 years, M: 21.474 SD: 1.6351; 3 men/54 women). The criterion of inclusion in the study was the healthy status. The participants are currently students in higher education and volunteered for the study.

Material

In my research I used Gehring's (2010) Family System Test (FAST), which allows the qualitative and quantitative exploration of key concepts of family dynamics such as cohesion and hierarchical relationships. The available test material contains test forms and supplementary forms for the study director.

The respondent represents his/her family members on a rectangular board, which is divided into a 9X9 coordinate system. There are three represented situations: (1) a typical (2) an ideal and (3) a conflict one. The participants first use natural coloured wooden figures (6 male and 6 female figures) to symbolize the family members and the cohesion between them.

Then the family members' power and influence can be represented with 1-2-3-level height extension discs. The respondent puts these discs under the wooden figures which have already been put on the board.

Finally, as a subtest, the family members' personal attributes are expressed by changing the natural coloured wooden figures for orange, blue or pink characters (Fig. 1, 2).

In the presented study FAST was used by the persons in an individual form. First of all, participants represented their family structures in the three situations (typical, ideal, conflict) (in about 5 to 15 minutes) and later short, semi-structured interviews (in about 40 to 60 minutes) were made for the better understanding of the subjective meaning of the represented configurations (Gehring, 2010).

Figure 1. Test materials: 6-6 natural coloured wooden figures, 6-6-6 height extension discs and 2-2-2 colour wooden figures



Figure 2. An example for a possible family structure representation



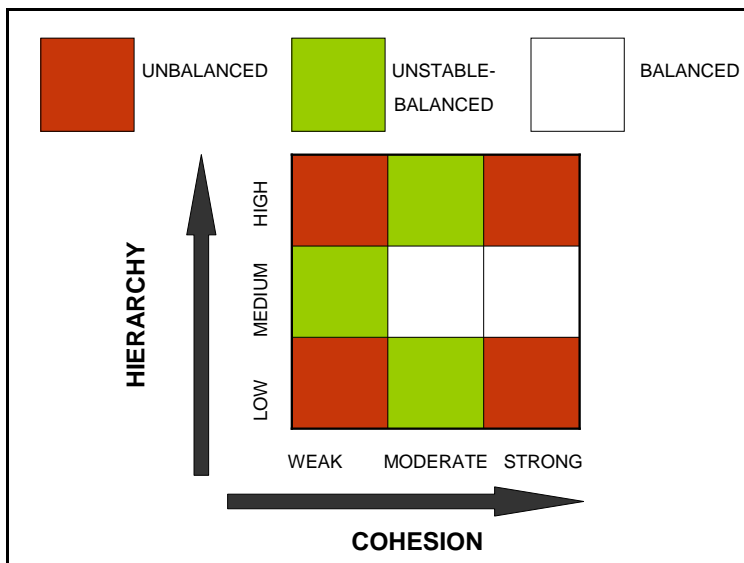
Procedure and scoring

The strength of the cohesion (weak, moderate, strong) was determined with the projection of a 3X3 square on the board. If the imaginary square covered all the figures, the cohesion was considered to be strong. When some figure(s) stood on a neighbouring field(s), the cohesion was only moderate, while figures outside the imaginary square meant weak cohesion.

The hierarchy could be also categorized into three types: (1) low (2) medium and (3) high. If the difference between the height of the highest child-figure and lowest parent-figure was at least 3 discs, the hierarchy was said to be high. When the difference between these figures was 2 discs, the hierarchy was medium. If the figures stood on the same level or the difference between them was only one disc, the hierarchy was said to be low.

The dimensions of cohesion and hierarchy also identified three types of potentially existing family structures: (1) balanced (2) unstable-balanced and (3) unbalanced (Fig. 3).

Figure 3. Types of the family structures (Gehring, 2010, page 37)



In the interviews the participants' answers gave me the opportunity to obtain more information about their family representations. Accordingly, the stability of the typical situation can be low or high and the difference between the previous and currently represented family structures can be small or large. We can say that the family structure is stable if the displayed conditions have

been specific for at least six months, and the difference in the family structures is low if there is only one family member at most whose position is different from the previous one (Gehring, 2010).

The family representation of the ideal situation can be routine or special, and its prevalence can be rare (maximum 5 times per year) or frequent (at least 6 times per year). If this ideal situation has not occurred yet, it has to be indicated in a separate part of the test form, in the comment section (Gehring, 2010).

The conflict situation can be typified by the family members who are the participants of the represented occasion: (1) parents (2) parent-child (3) siblings and (4) other. The situation can also be routine (minor misunderstandings) or special (greater problems such as stealing, taking drugs). Furthermore, the frequency of the conflict situation can be rare or higher. The prevalence of the conflict situation is rare if it occurs no more than once a month and frequent if there is a higher rate of these cases (Gehring, 2010).

Results

Quantitative analysis

The distribution of the mean values, based on the strength of the cohesion, was similar among the groups. It was true at all levels of the system and typical for all the three situations. Nevertheless, there were two cases when I found a statistical tendency for difference among the groups: (1) at the level of the family system, in the typical situation ($\chi^2=9.062$, $df=4$, $p=0.060$) and (2) at the level of the siblings' subsystem, in the ideal situation ($\chi^2=12.541$, $df=6$, $p=0.051$). Thus, the cohesion at the level of the family system, in the typical situation, was perceived stronger in the healthy population, and people with asthma represented stronger relationship with their sibling(s) in the ideal situation. The appearance of the coalition between the generations showed a similar distribution among the subsamples.

The comparison of the distribution of the values based on the levels of the hierarchy showed significant differences at the level of the family system, in the ideal situation ($\chi^2= 12.678$, $df=6$, $p=0.048$) (Fig. 4). According to this, stronger/(more) optimal hierarchy was represented by patients with panic disorder. The Chi-Square Test did not show a significant difference in the distribution concerning the reversal of the hierarchy among the groups.

The mean values of the flexibility of the cohesion and hierarchy among the subsamples were compared with One-Way ANOVA. A significant difference was found only at the level of the siblings' subsystem, based on the difference between the strength of the cohesion in the typical and the ideal situations ($F(2)=3.482$, 3.523 , $p=0.037$) (Fig. 5). Under this arrangement the asthmatic patients „idealized” a closer contact with their sibling(s) than the healthy population, while people with panic disorder detected weaker cohesion with their brother(s) or sister(s) than their healthy or asthmatic peers.

Figure 4. The hierarchy at the level of the family system in the ideal situation

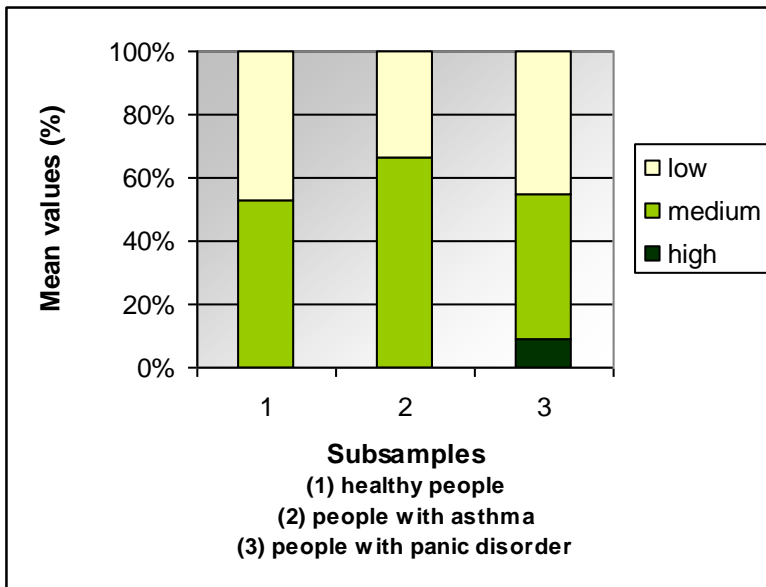
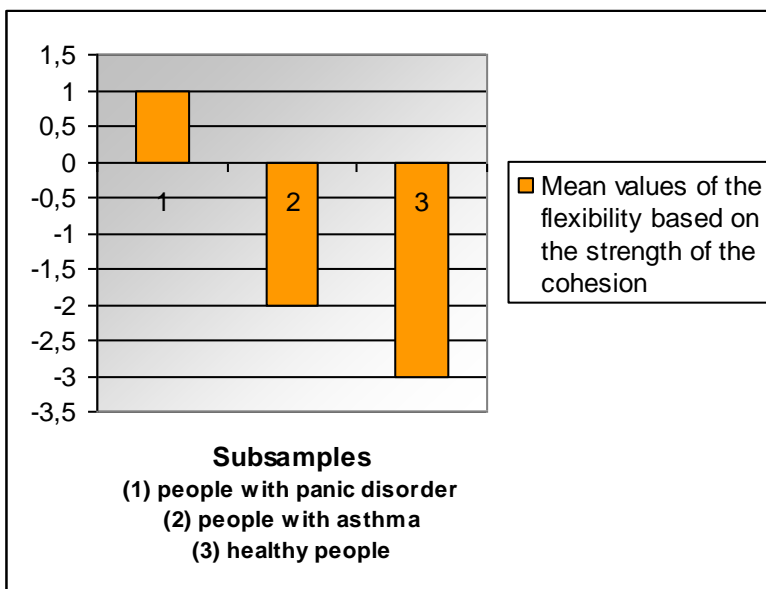


Figure 5. The flexibility of cohesion at the level of the siblings' subsystem, based on the difference between the strength of the cohesion in the typical and the ideal situations



Although the flexibility of the cohesion (the difference in the mean values of the cohesion found in the typical and the ideal situations) was not significant, there were statistical tendencies for difference – in absolute terms – at the level of the family system ($F(2)=3.114, 2.662, p=0.050$) and the parents' subsystem ($F(2)=2.842, 3.212, p=0.066$). According to the results, asthmatic patients represented closer relationships in their representations for the ideal situation than healthy young people or patients with asthma. The represented cohesion between the parents, in the ideal situation, was the strongest in the healthy population, less strong in the group of the asthmatic patients and the weakest in the group of the young people living with panic disorder compared with the typical situation.

The distribution of the types of the family structures was similar in the relation of the three subsamples, although a statistical tendency for difference among the groups can be observed with the Chi-Square Test. The patterns of the relationships of the healthy population can be seen in the following charts at the levels of the (sub)systems in the three situations (Fig. 6, 7, 8).

Figure 6. Family structures in the group of the healthy population

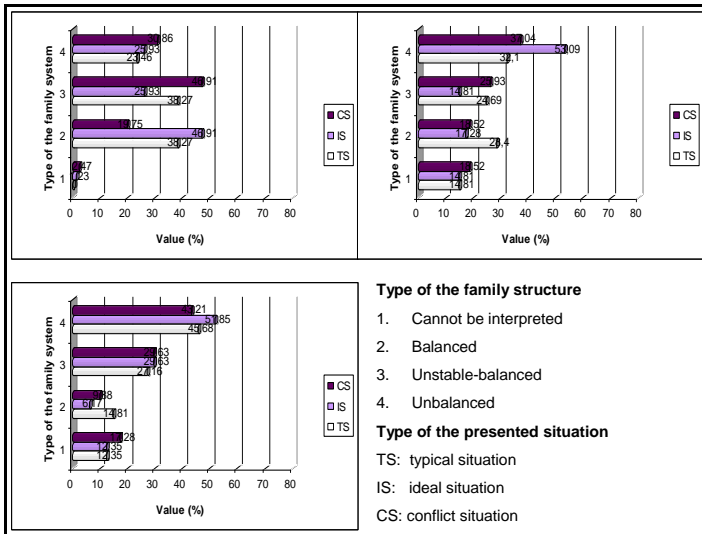


Figure 7. Family structures in the group of the asthmatic patients

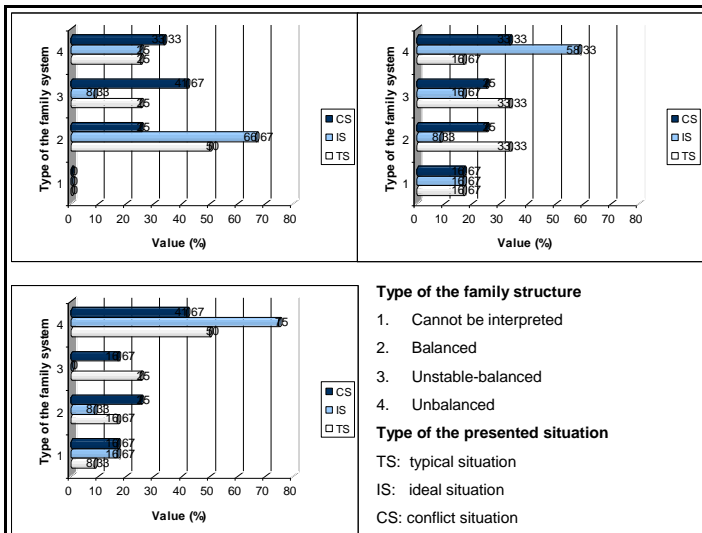
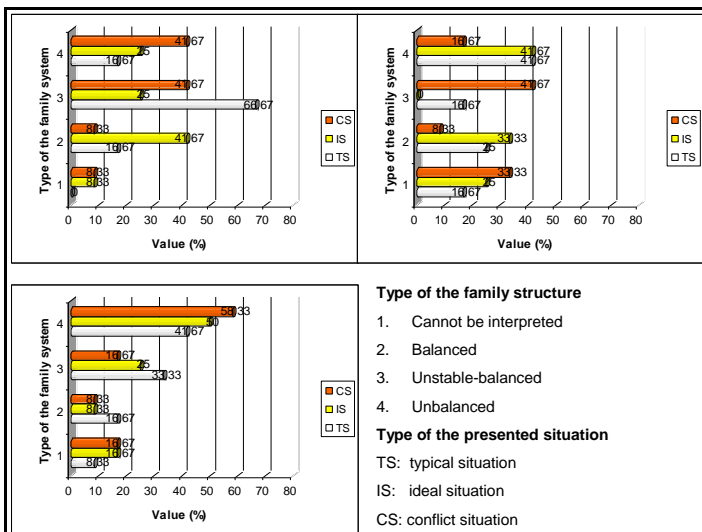


Figure 8. Family structures in the group of the people with panic disorder



The family structure was represented as the most balanced at the level of the family system in all the three situations in the group of the young people with asthma. The distribution of the balanced family structure at the level of the parents' subsystem, in the typical situation, did not show a significant difference among the groups, but while this type of family structure was rather preferred in the group of the people with panic disorder in the ideal situation, patients with asthma detected it in the conflict situation. Although at the level of the siblings' subsystem the balanced family structure did not show a significant difference among the groups either, a higher rate of this structure could be observed in the ideal and conflict situations in the group of the asthmatic patients.

The unstable-balanced family structure was dominant at the level of the family system, in the typical situation in the group of the people with panic disorder, while it was overrepresented in the ideal and conflict situations in the group of the healthy population. A higher rate of this family structure was found at the level of the parents' subsystem, in the typical and the ideal situations in the asthmatic group and in the conflict situation in the group of the people with panic disorder. This family structure was preferred at the level of the siblings' subsystem, in the typical situation in the group of the young adults with panic disorder, while healthy people rather represented an unstable-balanced family structure in the ideal and the conflict situations.

The unbalanced family structure was preferred at the level of the family system, in the typical situation in the group of young people with asthma, in the ideal situation in the group of the healthy population and in the conflict situation in the group of the people with panic disorder. At the level of the parents' subsystem this family structure showed a higher rate in the typical situation in the group of the patients with panic disorder, in the ideal situation in the group of asthmatic patients and in the conflict situation in the group of the healthy people. People with asthma represented their relationship with their sibling(s) unbalanced in the typical and the ideal situations, while patients with panic disorder preferred this type of structure in the conflict situation.

Qualitative analysis

Finally, none of the variables related to the qualitative analysis showed a significant difference in the distribution among the three groups. Thus the stability of the typical situation and the difference between the previous and current family structures were similar in the groups as well as the type and the frequency of the ideal and conflict situations and the rate of the changes in the representations done by the members of the different groups. It is remarkable that people with panic disorder slightly preferred their father's figure when locating it as compared to the members of the other groups.

Discussion

The aim of my study was to explore the representations of the family structure in the groups of people with asthma and panic disorder. I compared these results with the indicators of the healthy population. The perceived degree of the coherence of the families showed a statistical tendency for difference among the three groups. People with panic disorder rather expressed their need for a stronger hierarchy among the family members, which can be the sign of the need for clarifying family roles and designation of place in the family system, which can lead to the individuals' better adaptation. Twinning seemed to be particularly significant for asthmatic patients and these young people were the most likely to represent their family structures as balanced, compared to the groups of the people with panic disorder and healthy status, too. However, this behaviour was rather the manifestation of the rigid family structure, which is one of the characteristics of the dysfunctional family systems. So my first hypothesis was partly verified.

In accordance with my second hypothesis, people with panic disorder did not idealize their families because unstable-balanced family structures could also appear among their representations, which can be the expression of the more conscious and critical perception of the surrounding world. Therefore the displayed family representations are consistent with Bárdos's (2003) coping model,

because patients with asthma seem to be more inclined to conceal the problems of the family system and try to show an ideal picture of their family for the outside world. By contrast, people with panic disorder – during the process of becoming an adult – try to find the way of their individual prosperity with increasing awareness, and these persons seem to have a slightly higher level of ability to conflict with reality. The desire of leaving/breaking out of the family system may also be expressed in this patient group. However, the recognition is not associated with successful coping, so the attempt for separation ends in a panic attack/disorder.

However, further studies are necessary for the understanding and better interpretation of the correlations among the factors.

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