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The functioning of families of teens with attention deficit hyperactivity disorder and oppositional defiant disorder

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Summary

Aim. Comparison of the functioning of families of teens (13-16 years) with the diagnosis of attention deficit hyperactivity disorder (ADHD) or the diagnosis of both ADHD and oppositional defiant disorder (ODD).

Material and method. Assessment using the *Family Assessment Questionnaire* in three groups of adolescents growing up in biological families: (1) ADHD/ODD group (n = 40), (2) ADHD group (n = 40), and (3) group C (control group) adolescents (n = 40) who have not used psychological or psychiatric care in the past or at present.

Results. Mothers, fathers and adolescents from the ADHD/ODD group scored significantly lower in all important aspects of family functioning compared to the control group. In the ADHD group, less favorable mothers' and fathers' assessment was shown for all areas of family functioning compared with the control group. Adolescents' assessment in the dimensions of "Role performance", "Emotionality", "Affective involvement", and "Control" was also lower. The ADHD/ODD group participants and their parents rated the functioning of the family lower compared with the ADHD group: mothers – in all described areas, teenagers – in most of the described areas except in the dimension of "Control", and fathers – in most areas except in the dimension of "Emotionality".

Conclusions. The functioning of families of patients with ADHD and ODD, and families of patients with ADHD significantly differs in all or most of the examined dimensions compared with families of individuals without a diagnosis, while the functioning of families of patients with ADHD and ODD can be described as more abnormal than that of families of ADHD patients.

Key words: ADHD, oppositional defiant disorder, family functioning

Introduction

Attention deficit hyperactivity disorder (ADHD) [1] is one of the most prevalent disorders in the early school-age population [2, 3] and its symptoms persist during

adolescence and in over 60% of people in adulthood [4]. Studies show that about 70% of patients with ADHD meet the diagnostic criteria for other disorders [5], with the most common co-occurring disorder being oppositional defiant disorder (ODD), present in 50-70% of patients [6]. Conduct disorders pose a significant problem as well due to their negative consequences.

Many studies emphasise the impact of family functioning, including inappropriate parenting strategies, on the process of shaping oppositional and antisocial behaviour [7]. Of particular significance are difficulties with displaying closeness, lack of positive involvement, incoherent and aggressive disciplinary influences, and lack of ability to cope with ADHD symptoms [8, 9]. Emphasis is also placed on the role of limited communication, poor support from parents and low empathy [7, 10, 11]. It has been shown that parents of children with ADHD are more demanding than parents of healthy children [7], while at the same time they have less of a sense of responsibility for their children's behaviour. Mothers of children with ADHD concentrate more on the child's negative traits, discipline of the child and introduction of prohibitions, and are less sensitive and attentive to the current needs of the child [12]. On the other hand, Chang et al. [13] and Scholtens et al. [14] emphasise the significance of low father involvement in relationships with children with ADHD, overprotective attitudes and poor communication with children as factors that increase the likelihood of the appearance of symptoms of externalising disorders.

The factor that increases the risk of developing conduct disorders is also the consequence of ADHD symptoms for family functioning. The chronicity of symptoms combined with the need to undertake numerous, often ineffective therapies, leads to a sense of lower effectiveness in parenting and less satisfaction with parenthood [15]. The strongest source of stress for the families of children with ADHD is the effect of core symptoms and cognitive deficits, which enforce a greater number of parental interventions, undertaken to improve the child's performance. Researchers link this to higher emotional expression in families as well as ineffective and often conflicting communication [16].

In individuals with ADHD, protective factors against the occurrence of complications are constructive parenting methods, based on closeness, involvement, and adequate parental supervision [17]. Effective and positive parenting methods include: unambiguous communication, implementing age-appropriate restrictions, consistent and constant monitoring of child's functioning, appropriate consequences and a supportive parent-child relationship [18, 19]. A good emotional relationship with the mother, who adequately responds to the child's signals, is also recognised as a protective factor leading to a better development of empathy [20, 21].

The above observations justify continuous research on the assessment of the functioning of families of children and adolescents with ADHD, including co-occurring ODD.

Aim

To assess the functioning of families with adolescents diagnosed with ADHD, both ADHD and ODD, and without a psychiatric diagnosis.

Material

The study involved adolescents aged 13 to 16 years diagnosed with attention deficit hyperactivity disorder (ADHD) according to DSM-IV-TR [22], with or without co-occurring oppositional defiant disorder (ODD) according to DSM-IV-TR [22], hospitalised in a psychiatric ward for children and adolescents or remaining in psychiatric outpatient care, as well as their parents. Two experimental groups were created: (1) ADHD/ODD group – adolescents diagnosed with ADHD and co-occurring ODD (n = 33 boys, 82.5% and n = 7 girls, 17.5%; average age 14.9 ± 1.2 years), and (2) ADHD group – teenagers diagnosed with ADHD (n = 34 boys, 85.0% and n = 6 girls, 15.0%; average age 13.9 ± 1.1 years). The inclusion criterion for both groups, in addition to consenting to participate in the study by the patient and his/her parents, was being raised in a biological family. The exclusion criteria were upbringing in an adoptive or foster family, the presence of other psychiatric diagnoses, including pervasive developmental disorder, psychotic disorders, bipolar disorder, intellectual disability, conduct disorders other than ODD, and having participated in family therapy in the past. The control group (Control) consisted of middle school (Warsaw and sub-Warsaw) students. In addition, the selection criteria were based on age and gender (n = 33 boys, 82.5% and n = 7 girls, 17.5%; average age 14.5 ± 1.3 years). The inclusion criteria in the control group, in addition to consenting to participate in the study, were being raised in a biological family and having no history of psychological, psychiatric or psychotherapeutic care. The exclusion criterion was being raised in an adoptive or foster family.

Methods

Participants were subjected to a questionnaire assessment using the *Family Assessment Questionnaire (FAM)*. It is a tool for family diagnosis, which is based on Skinner's *Family Assessment Measure* [23] and is the Polish adaptation of the German-language version of the *Family Assessment Measure Questionnaire III* [24, 25, 26]. The study is aimed at individuals who live and function in a nuclear family (two consecutive generations). The tool enables a description of dynamic interactions in the family system and consists of three parts: *Family Questionnaire*, which allows the assessment of the family as a whole (40 items), *Dyadic Relations Questionnaire*, which describes relationships with other family members (28 items) and the *Self-Assessment Questionnaire*, which is used to assess one's own functioning in the family (28 items). The subject evaluates the truthfulness of the statements in the 4-point Likert scale: strongly agree, agree, disagree, strongly disagree. The desired state in a relationship is indicated by '0', while '3' indicates an undesirable state. The tool enables the assess-

ment of social roles performed in the family in seven dimensions of their functioning: *task accomplishment, role performance, communication, emotionality, affective involvement, control, and values and norms*. The overall score is the sum of the results from the seven scales. In addition, the *Family Questionnaire* has two control scales: (1) social expectations – examining the tendency to meet social expectations and (2) defenses – assessing tendencies to present a better self-image. The Polish version of the questionnaire is characterised by satisfactory reliability [25, 26]. In this study, the *Dyadic Relations Questionnaire* was completed separately by both parents in reference to the relationship with the child, and the *Self-Assessment Questionnaire* was completed by the child. Results above 1.5 on the 0-3 scale were considered high and indicated family dysfunction in a given dimension.

Statistical analysis

The nominal variables are presented as percentages. Medians and standard deviations were used to describe continuous variables. The normality of the distribution was verified with the Shapiro-Wilk test, assuming a level of $p < 0.05$ as indicating a significant deviation from normality. Variables with a non-normal distribution were logarithmically transformed. Assumption of uniformity of variance was checked by Levene's test. In Model 1, the analysis of variance (ANOVA) with the *post-hoc* Tukey's range test was used to compare continuous variables. In the case of interfering substitutes, regression analysis with qualitative independent variables, covariance analysis or model of different slopes (Model 2) were used. The assumption about the parallelism of the regression line was verified using the F-test. In the case of significant violation of the assumptions, the model of different slopes was used in further analysis. The average and 95% confidence intervals (95% CI) were used to describe the adjusted variables. The analysis was carried out using the STATISTICA 10.0 PL program (License number AGA201C942911AR-T).

The test procedure was accepted by the Bioethics Committee of the Medical University of Warsaw (KB/256/2012).

Results

Questionnaire on Dyadic Relations (FAM-D): Assessment from the mother's perspective

In the ADHD/ODD group and the ADHD group, significantly higher results were obtained compared to the control group ($p < 0.001$), as well as in the ADHD/ODD group compared to the ADHD group ($p < 0.001$) for the dimensions of task accomplishment, role performance and communication. In addition, in the emotionality dimension, significantly higher results were obtained in the ADHD/ODD group in relation to the ADHD group ($p < 0.05$) and the control group ($p < 0.001$), and in the ADHD group in relation to the control group ($p < 0.05$). In the dimension of affective involvement in relationships, significantly higher results were obtained in the

ADHD/ODD group in relation to the ADHD group ($p < 0.01$) and the control group ($p < 0.001$), as well as significantly higher scores in the ADHD group in relation to the control group ($p < 0.05$). In the control dimension significantly higher results were obtained in the ADHD/ODD group in relation to the ADHD group ($p < 0.001$) and the control group ($p < 0.001$), as well as significantly higher scores in the ADHD group in relation to the control group ($p < 0.001$). In the values and norms dimension, significantly higher scores were obtained in the ADHD/ODD group in relation to the ADHD group ($p < 0.05$) and the control group ($p < 0.001$), as well as significantly higher scores in the ADHD group in relation to the control group ($p < 0.05$). Table 1 presents numerical data.

Table 1. **Results of the survey with the Dyadic Relations Questionnaire *(FAM – D)* – Assessment from the mother's perspective**

	ADHD/ODD	ADHD	Control	ADHD/ODD vs ADHD	ADHD/ODD vs Control	ADHD vs Control
FAM mother's assessment	Average corrected (95% CI)	Average corrected (95% CI)*	Average corrected (95% CI)*	p-value	p-value	p-value
Task Accomplishment	8.4 (7.8-9.0)	6.4 (5.7-7.0)	4.6 (4.3-5.6)	0.00	0.00	0.00
Role Performance	8.5 (7.7-9.2)	7.1 (6.3-7.8)	4.1 (3.3-4.8)	0.03	0.00	0.00
Communication	7.2 (6.5-7.9)	5.2 (4.5-5.9)	2.2 (1.5-2.8)	0.00	0.00	0.00
Emotionality	5.1 (4.3-5.8)	3.7 (2.9-4.4)	2.2 (1.5-2.9)	0.01	0.00	0.01
Affective Involvement	5.3 (4.5-6.0)	2.8 (2.0-3.5)	1.4 (0.6-2.1)	0.00	0.00	0.02
Control	6.4 (5.7-7.2)	4.3 (3.5-5.1)	1.8 (1.0-2.5)	0.00	0.00	0.00
Values and Norms	7.4 (6.6-8.1)	5.6 (4.9-6.3)	3.9 (3.2-4.6)	0.00	0.00	0.00

Based on Polish studies regarding the Family Assessment Questionnaire [25, 26], the obtained results were divided into low scores (more beneficial from the point of view of the family carrying out its important functions) and high scores (above 1.5 on the 0-3 scale, describing an inferior functioning from the point of view of fulfillment of family tasks; see Table 2).

Table 2. **Numerical distribution of high results and low results in the FAM-D – Assessment from the mother's perspective**

FAM mother's assessment	RESULTS	ADHD/ ODD n	ADHD n	Control n
Task Accomplishment	High	23	12	17
	Low	17	28	23

table continued on the next page

Role Performance	High	24	12	15
	Low	16	28	25
Communication	High	13	5	19
	Low	27	35	21
Emotionality	High	15	8	6
	Low	25	32	34
Affective Involvement	High	19	3	0
	Low	21	37	40
Control	High	22	17	16
	Low	18	23	24
Values and Norms	High	27	9	9
	Low	13	31	31

Questionnaire on Dyadic Relations (FAM-D):
Assessment from the father's perspective

In the ADHD/ODD group and the ADHD group significantly higher results were obtained compared to the control group ($p < 0.001$), as well as in the ADHD/ODD group in comparison with the ADHD group ($p < 0.001$, $p < 0.01$ and $p < 0.02$) for the dimensions of completing tasks, performing roles and communication. In addition, in the emotionality dimension, significantly higher scores were obtained in the ADHD/ODD group compared to the control group ($p < 0.001$), as well as significantly higher scores in the ADHD group compared to the control group ($p < 0.004$), and no significant differences were found between the ADHD group/ODD and the ADHD group. In the dimension of affective involvement in relationships, significantly higher scores were obtained in the ADHD/ODD group in comparison with the ADHD group ($p < 0.05$) and the control group ($p < 0.001$), as well as significantly higher scores in the ADHD group in relation to the control group ($p < 0.001$). In the control dimension significantly higher results were obtained in the ADHD/ODD group compared to the ADHD group ($p < 0.02$) and the control group ($p < 0.001$), as well as significantly higher scores in the ADHD group in relation to the control group ($p < 0.01$). In the values and norms dimension, significantly higher scores were obtained in the ADHD/ODD group in relation to the ADHD group ($p < 0.05$) and the control group ($p < 0.001$), as well as significantly higher scores in the ADHD group in relation to the control group ($p < 0.001$). Numerical data are presented in Table 3.

Table 3. **Results of the survey with the Dyadic Reporting Questionnaire (FAM-D) – Assessment from the father's perspective**

	ADHD/ODD	ADHD	Control	ADHD/ ODD vs ADHD	ADHD/ ODD vs Control	ADHD vs Control
FAM father's assessment	Average corrected (95% CI)	Average corrected (95% CI)*	Average corrected (95% CI)*	p-value	p-value	p-value
Task Accomplishment	8.7 (8.0-9.4)	7.0 (6.3-7.7)	5.2 (4.5-5.9)	0.00	0.00	0.00
Role Performance	8.5 (7.7-9.2)	6.6 (5.8-7.4)	4.3 (3.5-5.1)	0.00	0.00	0.00
Communication	7.6 (6.8-8.3)	6.1 (5.3-6.8)	3.2 (2.5-3.9)	0.01	0.00	0.00
Emotionality	6.1 (5.3-6.9)	5.0 (4.2-5.8)	3.1 (2.3-3.9)	0.11	0.00	0.00
Affective Involvement	6.1 (5.2-7.0)	4.4 (3.5-5.3)	1.9 (1.0-2.8)	0.01	0.00	0.00
Control	6.6 (5.8-7.4)	5.0 (4.2-5.8)	3.1 (2.3-3.9)	0.01	0.00	0.00
Values and Norms	7.8 (7.0-8.6)	5.9 (5.1-6.7)	4.0 (3.2-4.8)	0.00	0.00	0.00

The FAM results were divided into low and high scores depending on the effectivity of fulfillment of the family function (see Table 4).

Table 4. **Numerical distribution of high results and low results in the FAM-D – Assessment from the father's perspective**

FAM father's assessment	RESULTS	ADHD/ ODD n	ADHD n	Control n
Task Accomplishment	High	28	19	19
	Low	12	21	21
Role Performance	High	24	26	23
	Low	16	14	17
Communication	High	16	16	19
	Low	24	24	21
Emotionality	High	22	18	9
	Low	18	22	31
Affective Involvement	High	25	15	3
	Low	15	25	37
Control	High	24	26	26
	Low	16	14	14
Values and Norms	High	27	18	9
	Low	13	22	31

Self-assessment questionnaire (FAM – S):
Assessment from the teenager's perspective

In the task accomplishment dimension, significantly higher scores were obtained in the ADHD/ODD group compared to the control group ($p < 0.001$) as well as in the ADHD group ($p < 0.001$), and no significant differences were found between the ADHD group and the control group ($p = 0.13$). In the role performance dimension, significantly higher scores were obtained in the ADHD/ODD group compared to the control group ($p < 0.001$) and in relation to the ADHD group ($p < 0.01$), as well as significantly higher scores in the ADHD group compared to the control group ($p < 0.05$). In the communication dimension, significantly higher results were obtained in the ADHD/ODD group in comparison with the control group ($p < 0.05$) and ADHD group ($p < 0.05$), but no significant differences between the ADHD group and the control group were found. In addition, in the emotionality dimension, significantly higher results were obtained in the ADHD/ODD group compared to the control group ($p < 0.001$) and the ADHD group ($p < 0.01$), as well as significantly higher scores in the ADHD group in relation to the control group ($p < 0.001$). In the dimension of affective involvement in relationships, significantly higher results were obtained in the ADHD/ODD group in relation to the ADHD group ($p < 0.001$) and the control group ($p < 0.001$), as well as significantly higher scores in the ADHD group in relation to the control group ($p < 0.05$). In the control dimension, significantly higher results were obtained in the ADHD/ODD group compared to the control group ($p < 0.001$), as well as significantly higher results in the ADHD group in comparison with the control group ($p < 0.05$), but no significant differences were found between the ADHD group/ODD and the ADHD group. In the values and norms dimension, significantly higher scores were obtained in the ADHD/ODD group compared to the ADHD group ($p < 0.05$) and the control group ($p < 0.001$), and the differences between the ADHD group and the control group were on the verge of statistical significance ($p = 0.07$). Numerical data are presented in Table 5.

Table 5. **Results of the self-assessment questionnaire (FAM – S): Assessment from the teenager's perspective**

	ADHD/ODD	ADHD	Control	ADHD/ODD vs ADHD	ADHD/ODD vs Control	ADHD vs Control
FAM teenager's assessment	Average corrected (95% CI)	Average corrected (95% CI)*	Average corrected (95% CI)*	p-value	p-value	p-value
Task Accomplishment	7.4 (6.8-8.0)	5.5 (4.9-6.2)	4.6 (4.0-5.3)	0.00	0.00	0.12
Role Performance	7.3 (6.5-8.1)	5.3 (4.6-6.1)	4.0 (3.2-4.7)	**0.00**	**0.00**	**0.03**
Communication	5.7 (5.1-6.3)	4.4 (3.8-5.0)	4.5 (3.9-5.1)	**0.00**	**0.01**	0.94
Emotionality	5.7 (5.1-6.2)	4.4 (3.9-5.0)	2.8 (2.2-3.3)	**0.00**	**0.00**	**0.00**

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Affective Involvement	5.7 (5.0-6.5)	3.3 (2.6-4.1)	1.8 (1.0-2.6)	**0.00**	**0.00**	**0.01**
Control	8.0 (7.4-8.6)	7.3 (6.6-7.9)	6.1 (5.5-6.7)	0.23	**0.00**	**0.03**
Values and Norms	6.0 (5.2-6.7)	4.3 (3.5-5.0)	3.1 (2.4-3.9)	**0.00**	**0.00**	0.07

The results were divided into low and high scores depending on the effectivity of the functioning of the family (see Table 6).

Table 6. **Numerical distribution of high scores and low scores in FAM-S: Assessment from the teenager's perspective**

FAM teenager's assessment	RESULTS	ADHD/ ODD n	ADHD n	Control n
Task Accomplishment	High	21	16	25
	Low	19	24	15
Role Performance	High	17	22	30
	Low	23	18	10
Communication	High	19	5	3
	Low	21	35	37
Emotionality	High	12	7	1
	Low	28	33	39
Affective Involvement	High	24	7	0
	Low	16	33	40
Control	High	13	17	25
	Low	27	23	15
Values and Norms	High	23	11	5
	Low	17	29	35

Discussion

The obtained results indicate that mothers, fathers and adolescents from the ADHD/ODD group assess lower all of the essential aspects of family functioning in comparison to the control group (significantly higher scores for all FAM subscales). Meanwhile, in the ADHD group, significantly higher scores were obtained compared to the control group in the area of assessments of mothers and fathers in all of the dimensions of family functioning and in adolescents' assessments in the dimensions of performing roles, emotionality, affective involvement in establishing relationships and control. Moreover, adolescents from the ADHD/ODD group assess family functioning in the majority of the areas described (except in the dimension of control) lower

than the ADHD group; similar results were seen in their fathers' assessment (except in the emotionality dimension). On the other hand, mothers from the ADHD/ODD group assess lower the functioning of the family compared to the ADHD group in all described areas.

Taking the above into account, it can be assumed that teenagers from the control group and their parents more positively assess the assignment of particular roles to individual family members, and thus there is a greater ability of family members to adapt to changing roles and a higher level of integration. Furthermore, in the control group, the scope of expressed emotions is bigger and their expression is more adequate. Teenagers describe more care in relationships, which leads to the satisfaction of emotional needs and enables the autonomy of individuals, with which the lower level of control experienced by parents is correlated. Control is described as more constructive, and the interaction of family members aligns with their expectations, which is associated with better communication and a higher level of responsibility. Teens from the control group and from the ADHD group similarly cope with the basic tasks as well as developmental and crisis challenges (no significant differences in results in the dimension of task accomplishment), and similarly perceive the ability of families in terms of flexibility and adaptation to changing conditions. Furthermore, there are no significant differences between the ADHD group and the control group in the area of communication, enabling mutual understanding in the family – the respondents in both groups similarly evaluate the exchange of information, clarity of cues and accessibility of the interlocutor, which affects the ability to regulate emotions and together with aspects regarding values and norms in the family it is the basis for the proper shaping of the attachment relationship. The ADHD group and control group is also characterised by a similar consistency of rules and freedom of action.

Parents from both clinical groups (ADHD group and ADHD/ODD group) perceive the ability to cope with problems, communication and the importance of values and norms differently from the control group. Also, the teenager's self-assessment of expressing emotions is lower, which may result from a lower sense of self-worth and independence, as well as from greater problems in respecting the rights and boundaries of other people. The respondents with an ADHD diagnosis see emotional relations as less supportive, and parents from both clinical groups (ADHD/ODD and ADHD) describe a lower level of empathy in their relationships with their children, which, in combination with the description of excessive (symbiotic) or insufficient (uninvolved) emotionality, may create uncertainty and lack of autonomy of individual family members. Parents from the ADHD/ODD group describe the control over performing tasks and carrying out roles in relation to the child as less effective, which prevents their noticing changing conditions and adapting to them; this negatively affects the regulation of the family system. Control is characterised as a struggle for power – open or hidden, and attempts to control are chaotic or embarrassing, which is consistent with descriptions of the role of inconsistent discipline in generating externalising disorders [27]. Similarly, in the ADHD group, the ability to control effectively is less flexible than in the control group and the ability to change the functioning pattern is weaker.

The ADHD/ODD group is characterised by a lower degree of coherence between different parts of the family value system, a lower congruence of family values with reference to descriptions of the social group and cultural circle. Coherence of the value system is treated as a factor reducing the probability of exposure to traumatic events, and thus is associated with a lower severity of ADHD symptoms, oppositional defiant disorder and mood disorders [28]. Fathers of adolescents in the ADHD/ODD group and the ADHD group similarly assess the emotional prosody of communication with children, while the fathers of the adolescents in the control group describe a wider spectrum of expressed feelings of adequate intensity. In turn, in the mothers' assessments, starting from the ADHD/ODD group, through the ADHD group to the control group, a decreasing level of emotional intrusion and emotional distancing in relationships with their children can be observed. This promotes the building of self-esteem as well as independence in the teenagers. The above results are consistent with the literature that emphasises that mothers and fathers of adolescents with ADHD and ADHD/ODD are assessed as more directive than empathic and more negative in less frequent interactions [7]; additionally, it is noted that these parents have a higher level of negative emotions and there is a greater number of conflicts caused by excessive focusing on negative aspects of the child's functioning [29].

Interesting observations regarding the functioning of families are also provided by comparison of the ADHD/ODD group and the ADHD group. Descriptions of the most observable dimension of family functioning, such as coping with the basic tasks of the family, the realization of developmental goals and the ability to overcome critical situations, differ significantly in the ADHD/ODD group and the ADHD group. These tasks, apart from those culturally defined, are specific to a particular family, defined by the values and norms it adopts, and their shape is influenced by values from parents' families of origin. In the families of ADHD/ODD patients, teenagers, mothers and fathers perceive greater difficulties in fulfilling a wide range of diverse tasks (both those specific to the family and culturally defined), adapting to changing conditions, and developing alternative solutions. This indicates less flexibility and adaptability. Fulfilling the tasks requires an effective division of roles, with which ADHD/ODD teenagers have greater difficulties. Descriptions reveal a mismatch between roles and relationships in the family, disagreement about their definition, and in changing conditions – difficulties in adapting and complementing roles for more effective functioning. Poor exchange of information (both verbal and non-verbal, often insufficient or unclear, with an inappropriate emotional prosody) is not helpful in defining roles in the family. This results in poor mutual understanding and a lower ability to explain the difficulties that ADHD/ODD parents describe in their relationships with their children, in contrast to the ADHD group. Furthermore, the cues described by teenagers, mothers and fathers in the ADHD/ODD group not only provide less mutual understanding, but also often contain an inappropriate expression of emotions (in the form of suppression or exaggeration of feelings).

These results confirm earlier observations on communication among adolescents with ADHD and ODD and their parents, proving that not only the symptoms of ADHD but also the lack of constructive strategies for coping with stress and hostile commu-

nication in family relationships increase the severity of co-occurring symptoms [8]. Teenagers from the ADHD/ODD group also describe fewer signs of mutual interest in the family with an accompanying emotional involvement, which is usually narcissistic non-engagement or symbiotic overprotection instead of adequate emotional reactions. Differences in emotional functioning are not noticed by fathers in the compared groups; however, in available literature, attention is drawn to a smaller number of interactions combined with less emotional involvement on the part of mothers in the group of adolescents with ADHD and oppositional defiant disorder [16]. In the ADHD group, parents perceive mutual interactions as slightly more beneficial as far as fulfillment of family tasks and adaptation to changing conditions are concerned. In the ADHD/ODD group, there are more inconsistencies in the system of norms and values in the relationship of mothers and fathers with children, which may cause confusion and tension, conflict in the family and in the cultural value system, undermine overt rules. Evaluations of teenagers, mothers and fathers indicate greater adaptability in the ADHD group – the ability to respond to developmental or situational stress by changing the structure of power, roles and family rules. There were no significant differences between the ADHD/ODD group and the ADHD group in the control descriptions of adolescents – young people perceive relationships with fathers mainly through the prism of constraints (similar observations can be found in the work of Iniewicz et al. [30]). Attempts to control are perceived as chaotic or accurately predictable. In turn, the control in the descriptions of mothers and fathers from the ADHD/ODD group is less flexible, very predictable, rigid and/or chaotic.

Functioning of the family, ADHD and complication in the form of conduct disorders is recognized in literature within a certain continuum – the more disturbed the family relationships, the greater the probability of development of conduct disorders; the less the difficulty in family functioning, the greater the likelihood of no complications [7].

Limitations

The possibility of inference from the results obtained is associated with certain limitations. The first of these is the lack of accurate clinical analysis of the ADHD/ODD group and the ADHD group in terms of the severity of the symptoms presented. Evaluation of correlation of this variable with the assessment of family functioning would be a valuable complement to the study protocol. Similarly, the assessment of the occurrence of ADHD symptoms and their severity in the parents of the examined adolescents would allow a more in-depth analysis of the described problem. Another limitation is the small sample size, mainly due to restrictive inclusion criteria, the subject of the study and a large number of refusals. Only patients hospitalised in a psychiatric ward for children and adolescents or remaining in psychiatric outpatient care were recruited into clinical groups. This could potentially be associated with a higher severity of the disorder symptoms and thus influence the final results.

Conclusion

Taking into account the above limitations, it can be concluded that the functioning of families of patients with ADHD and ODD and families of patients with ADHD significantly differs in all or most of the dimensions examined in relation to families with teenagers without a diagnosis of a mental disorder. The functioning of families of patients with ADHD and ODD can be described as more abnormal than that of families of patients with ADHD. These difficulties are noticeable especially from the teenager perspective and concern most of the examined dimensions of family functioning, particularly in the dimensions of low emotional involvement as well as values and norms.

References

1. American Psychiatric Association. *Diagnostic and statistical manual of mental disorders (5th ed.).* Washington, DC; 2013.
2. Follan M, Anderson S, Huline-Dickens S, Lidstone E, Young D, Brown G et al. *Discrimination between attention deficit hyperactivity disorder and reactive attachment disorder in school aged children*. Res. Dev. Disabil. 2011; 32(2): 520-526.
3. Willcutt EG, Nigg JT, Pennington BF, Solanto MV, Rohde LA, Tannock R et al. *Validity of DSM-IV attention deficit/ hyperactivity disorder symptom dimension and subtype.* J. Abnorm. Child Psychol. 2012; 121(4): 991-1010.
4. Polanczyk GV, Willcutt EG, Salum GA. *ADHD prevalence estimates across three decades: An updated systematic review and meta-regression analysis*. Int. J. Epidemiol. 2014; 43(2): 434-442.
5. Katzman MA, Bilkey TS, Chokka PR, Fallu A, Klassen LJ. *Adult ADHD and comorbid implications of a dimensional approach.* BMC Psychiatry. 2017; 17(1): 302.
6. Humphreys KL, Aguirre VP, Lee SS. *Association of anxiety and ODD/CD in children with and without ADHD.* J. Clin. Child Adolesc. Psychol. 2012; 41(3): 370-377.
7. Johnston C, Mash EJ, Miller N, Ninowski JE. *Parenting in adults with attention-deficit/ hyperactivity disorder.* Clin. Psychol. Rev. 2012; 32(4): 215-228.
8. Edwards G, Barkley RA, Laneri M, Fletcher K, Metevia L. *Parent adolescent conflict in teenagers with ADHD and ODD.* J. Abnorm. Child Psychol. 2001; 29(6): 557-572.
9. Pfiffner LJ, McBurnett K, Rathouz PJ, Judice S. *Family correlates of oppositional and conduct disorders in children with attention deficit/hyperactivity disorder.* J. Abnorm. Child Psychol. 2005; 33(5): 551-563.
10. Fonagy P, Gergely G, Jurist E, Target M. *Affect regulation, mentalisation and the development of the self.* New York: Other Press; 2002.
11. Cheung K, Theule J. *Parental psychopathology in families of children with ADHD: A meta-analysis.* J. Child Fam. Stud. 2016; 25(12): 3451-3461.
12. Szaniawska M. *Specyfika interakcji wychowawczej matek dzieci z ADHD.* Praca magisterska, Department of Psychology at the University of Warsaw; 2007.
13. Chang LR, Chiu YN, Wu YY, Gau SSF. *Father's parenting and father-child relationship among children and adolescents with attention-deficit/hyperactivity disorder*. Compr. Psychiatry. 2013; (54)2: 128-140.

14. Scholtens S, Rydell AM, Bohlin G, Thorell LB. *ADHD symptoms and attachment representations: Considering the role of conduct problems, cognitive deficits and narrative responses in non-attachment-related story stems.* J. Abnorm. Child Psychol. 2014; 42(6): 1033-1042.
15. Podolski CL, Nigg JT. *Parent stress and coping in relations to child ADHD severity and associated child disruptive behavior problem.* J. Clin. Child Psychol. 2001; 30(4): 503-513.
16. Gau SSF. *Parental and family factors for attention-deficit hyperactivity disorder in Taiwanese children.* Aus. N Z J. Psychiatry. 2007; 41(8): 688-696.
17. Molina BG, Pelham WE, Cheong JW, Marshal MP, Gnagy EM, Curran PJ. *Childhood attention-deficit/hyperactivity disorder and growth in adolescent alcohol use: The roles of functional impairments, ADHD symptom persistence and parental knowledge.* J. Abnorm. Psychol. 2012; 121(4): 922-935.
18. Wills TA, Resko JA, Ainette MG, Mendoza D. *Role of parent support and peer support in adolescent substance use: A test of mediated effect.* Psychol. Addict. Behav. 2004; (18)2: 122-134.
19. Chronis AM, Lahey BB, Pelham WE, Williams SH, Baumann B, Kipp H et al. *Maternal depression and early positive parenting predict future conduct problems in young children with attention-deficit/hyperactivity disorder.* Dev. Psychol. 2007; (43)1: 70-82.
20. Pardini DA, Fite PJ. *Symptoms of conduct disorder, oppositional defiant disorder, attention-deficit/hyperactivity disorder, and callous-unemotional traits as unique predictors of psychosocial maladjustment in boys: Advancing an evidence base for DSM-5.* J. Am. Acad. Child Adolesc. Psychiatry. 2010; (49)11: 1134-1144.
21. Pardini DA, Loeber R. *Interpersonal and affective features of psychopathy in children and adolescents: Advancing a developmental perspective.* J. Clin. Child Adolesc. Psychol. 2007; (36)3: 269-275.
22. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders (4th ed.).* Washington, DC; 1994.
23. Skinner HA, Steinhauer PD, Sitarenios G. *Family Assessment Measure (FAM) and process model of family functioning.* J. Fam. Ther. 2000; 22(2): 190-221.
24. Cierpka M, Frevert G. *Die Familienbögen*. Göttingen: Hogrefe Vrl; 1994.
25. Beauvale A, de Barbaro B, Namysłowska I, Furgał M. *Niektóre psychometryczne własności Kwestionariuszy do Oceny Rodziny.* Psychiatr. Pol. 2002; (36)1: 29-40.
26. Namysłowska I, Paszkiewicz E, Siewierska A, de Barbaro B, Furgał M, Drożdzowicz L et al. *Kwestionariusze Manfreda Cierpki do Oceny Rodziny.* Psychiatr Pol. 2002; 36(1): 17-28.
27. Sroufe LA, Duggal S, Weinfield N, Carlson E. *Relations, development, and psychopathology.* In: Sameroff AJ, Lewis M, Miller SM, ed. *Hand of developmental Psychopathology (2nd ed.).* New York: Kluwer Academic/ Plenum Publishers; 2000. p. 75-91.
28. Behere A, Basnet P, Campbell P. *Effects of family structure on mental health of children: A preliminary study.* Indian J. Psychol. Med. 2017; 39(4): 457-463.
29. Melnik S, Hinshaw S. Emotion regulation and parenting in AD/HD and comparison boys: Linkages with social behaviors and peer performers. J. Abnorm. Child Psychol. 2000; (28)1: 73-86.
30. Iniewicz G, Dziekan K, Wiśniewska D, Czuszkiewicz A. *Wzory przywiązania i lęku wśród młodzieży u adolescentów z diagnozą zaburzeń zachowania i emocji*. Psychiatr. Pol. 2011; (45)5: 693-702.

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