

LEVEL OF EMOTIONAL AND SOCIAL COMPETENCE IN ADULT PERSONS WITH SYMPTOMS OF HYPERACTIVITY DISORDER

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SUMMARY

The present study concerns adults with symptoms of hyperkinetic syndrome. According to the literature, the main problems in comparison to persons without ADHD symptoms include difficulties in the verbal expression of emotions, limited emotional vocabulary, inaccurate interpretation of emotions on other people's faces, and a lower level of empathy. Moreover, hyperactive persons show a lower level of social competence, resulting in difficulties in understanding and taking advantage of non-verbal signs sent by others. People with hyperkinetic symptoms find it difficult to judge social situations accurately, which can lead to problems in meeting social needs. Our primary goal was to determine whether or not recognizing and naming one's own emotions constitutes a greater problem for persons with ADHD symptoms than for those without such symptoms. The second goal was to examine the difference between persons with ADHD symptoms and healthy controls in recognizing and naming emotions felt by others. The final question concerned differences between persons with or without hyperkinetic symptoms in terms of social intelligence. Two groups of persons were examined: a criterion group (59 adults with hyperkinetic symptoms) and a control group (60 adults without hyperkinetic symptoms). The following methods were used: the Behavior Questionnaire, the Scale of Emotional Consciousness Levels, and the Social Competence Questionnaire.

INTRODUCTION

Attention deficit hyperactivity disorder (ADHD) is diagnosed more and more often recently. According to the APA's definition (1994), ADHD is a dis-

order of neurobiological origin, marked by a triad of symptoms: lack of concentration, impulsiveness and hyperactivity. The evidence for the prevalence of ADHD varies. Bonafina (2000, cited by Borkowska, 2006) estimates the incidence as 3-5% of school age children. To sum up the research from various countries, it can be said that hyperkinetic syndrome affects approximately 1 to 13% of children in this age range, with a predominance of boys. In the US the figure is 7% (Barkley, 2006), in Great Britain less than 1%, in China from 2 to 13% (Mann et al. 1992, cited by: Lipowska, 2007), and in Poland 6.6% (Kołakowski et al. 2007). In adolescence the figure reaches about 6% (Biederman, 1990; Goldman 1998). What is more, the disorder, which until now was considered to be a specifically childhood disorder, can be diagnosed in adults (Barkley & Murphy, 1998). Some persons outgrow ADHD, but symptoms can be still found in 30%-85% of adults who suffered from this disease in childhood. Most people with dynamic disorders of the central nervous system do not "outgrow" them, and it is probable that the ADHD incidence in the adult population is similar to that among children. Kent (2004) estimates it at 5%, Weiss and Murray (2003) at 2-6%. It should be mentioned that in adult years the proportion of women to men with hyperkinetic syndrome changes, reaching 1:1 (McDonnell et al., 2003). In childhood, on the other hand, for each girl with ADHD there are three boys. The proportion of boys decreases with age by about 20% annually (Wolańczyk, 1999). Genetic research shows that a considerable etiological factor is genetic predisposition, which increases the probability of ADHD in the next generation by 4.6 to 7.6 times (McDonnell et al., 2003). The research on family incidence of ADHD shows that 71% of ADHD children's relatives have or used to have similar symptoms; 40% of children with hyperkinetic syndrome have parents with persistent hyperactivity disorder syndrome, whereas 35% of ADHD children have siblings with the same disorder (Wolańczyk, 1999).

Hyperkinetic syndrome prevents many persons from normal functioning. People suffering from ADHD are prone to feel the burden of their disorder everywhere - at school, at home, at the workplace, among friends, in relationships with other people. This stems from the wide spectrum of symptoms diagnosed in hyperkinetic syndrome. A lack of uniform criteria to diagnose disorders after childhood and adolescence make the situation even more complicated. Nowadays we can find criteria to diagnose hyperactivity in the case of children and adolescents, measured according to medical scales used worldwide – DSM-IV-TR (APA, 2000) and ICD – 10 (1997). These criteria are applied by some experts also to adults, but they are not always sufficient (Wolf & Wasserstein, 2001; Bowes, 2001). Therefore attempts are being made to create systems to diagnose ADHD after adolescence. Presently Hallowell and Ratey's (2004) three-dimensional system of hyperactive disorder diagnosis is commonly used. The first dimension to be diagnosed concerns the set of symptoms reported by an adult ADHD patient. These criteria can be fulfilled only when particular behaviors appear more often than

among other people in the same age bracket. The second condition is met when ADHD syndrome appeared in childhood, but it is not necessary that it was formally diagnosed. The third dimension is a lack of other possible explanations for these symptoms from the medical point of view.

Many experts also use the Utah criteria developed by Paul Wender (2000), which include two main determinants of the disorder. The first is a history of childhood ADHD. The prerequisite in this system is both attention deficit and motor hyperactivity, appearing together with at least one of the following symptoms: improper school behavior, impulsiveness, emotional hyperactivity, or outbursts of anger. The other prerequisite is attention problems persisting in adulthood and motor hyperactivity, appearing together with two of the following five symptoms: emotional lability, temper tantrums, low tolerance for stress, an inability to organize, and impulsiveness. The Utah criteria, in contrast to Hallowell and Ratey's system, do not diagnose ADHD without motor hyperactivity.

Some interesting views on hyperactivity symptoms in adults are presented by Conners (Bowes, 2001), who assumed at the beginning of his study that the symptoms appearing in adults suffering from this disorder are illustrated by nine dimensions. Three of these - lack of concentration, hyperactivity/anxiety, and impulsiveness/lack of self-control constitute the core symptoms. The other dimensions are connected with performance factors (self-regulation, task and time management), memory, difficulties with self-description, interpersonal problems, difficulties in learning, and mood changes (proneness to irritation, susceptibility to stress). After factor analysis, the selected symptoms produced four factors: concentration problems/cognitive problems, hyperactivity/anxiety, impulsiveness/emotional lability, and problems with self-image. The first factor is analogical to attention deficit among children, although it concerns different problems in the cognitive sphere in adults, including difficulties in performing functions and realizing tasks. The second factor includes not only motor hyperactivity, but also a feeling of anxiety, frequent changes of activity (distraction), or the tendency to become bored very quickly. The impulsiveness/emotional lability factor is similar to the impulsiveness that can be found in children, but there is additionally verbal impulsiveness and a tendency to annoyance, intolerance of stress, and mood lability. All four scales can be applied to both men and women.

It should be stressed that diagnosing ADHD in adults is not an easy task. It is of considerable importance to collect information not only about the current state, but also concerning development throughout childhood and adolescence. Reminiscences may not be reliable because of mistakes generated by memory. Therefore it is essential in the diagnostic process that not only hyperactive people take part, but also their spouses, siblings, parents and close friends. This kind of anamnesis enables the creation of the patient's clinical picture in terms of present and past.

Emotional and social competence may be a decisive factor when it comes to achieving success in private and professional life (Mayer & Salovey, 1997).

Persons with a high level of emotional and social intelligence handle many situations better, build better relationships, and are happier with their lives (Goleman, 1997).

The ability to communicate, to name and notice one's own and others' emotions, is said to be a basic ability of every human being. We need to be understood by ourselves and others, which enables us to establish and maintain satisfactory social relationships (Mayer et al., 2001). Of similar significance is "social consciousness and competence," understood as the ability to listen to other people, recognize verbal and non-verbal signs, understand other people's emotions, care about their needs, and shape social relationships (Goleman, 2007). The importance of this kind of competence in everyday life can easily be seen in the case of persons suffering from disorders which cause difficulties in these spheres, among which is not hyperactivity. In the research presented here, attention is focused on one of the dimensions of emotional intelligence: the ability to name and communicate emotional states.

Friedman and Rapport (2003) found in their research that adults with ADHD syndrome used more words to describe scenes than those not suffering from ADHD; these were not, however, words connected with emotions, in terms of the lack of differences in verbal intelligence. The research by Biederman, Faraone, Milberger, Guite, Mick, and Chen (1996, cited by: Rapport et al., 2002) showed that in families with teenagers with symptoms of hyperactivity disorders there are more divorces than in families where the symptoms of this disease do not occur. Further research showing that persons with ADHD symptoms may have lower emotional intelligence was conducted by Casey (1996, cited by: Rapport et al., 2002). This author found that children with hyperkinetic symptoms are less accurate at recognizing emotional expression, not only in themselves, but also in the faces of other persons, in comparison to children who did not show any signs of ADHD and children suffering from depression. In their research, Braaten and Rosen (2000, cited by: Friedman et al., 2003) analyzed the statements of boys with and without symptoms of hyperactivity disorder about fictitious stories. It turned out that boys with ADHD symptoms show less empathy than boys without such symptoms. The research on adults has shown that persons with ADHD symptoms have worse results than persons without ADHD symptoms in recognizing emotions on other people's faces (Rapport et al., 2002).

Barkley (1997) put forward the hypothesis that deficits in the sphere of emotional competence are the consequence of a limited ability to restrain behaviors, leading to reduced emotional reactivity and reduced emotional self-control. Another hypothesis explaining the reduced level of emotional competence among people with hyperactivity symptoms suggests that these persons may be less able to differentiate between specific emotions, or are less willing to do that. These deficits may be connected with the ability to identify one's own emotions, as well as those of others, or they may be connected with a tendency to minimize information concerning emotions. One

factor which can prompt a decrease in the importance of emotional information level, according to Friedmann and Rapport (2003), is the ability to focus on emotions and on their intensity.

The other sphere examined in our research was social intelligence. The ability to listen to and understand others and behave adequately to every situation is a very important aspect of life, and make interpersonal bonds easier to form and maintain. Therefore it seems worth asking whether or not persons with hyperactivity disorder are aware of their problems connected with social competence. King and Young (1982, cited by: Friedman et al., 2003) stated that children suffering from ADHD are aware that they are less popular with their peers. Moreover, they are also aware of their difficulties in controlling their social behaviors. Research performed on a group of adults with ADHD by Barkley, Murphy, and Kwasnik (1996, cited by: Friedman et al., 2003) shows that symptoms of hyperactivity disorder lead to critical problems with interpersonal and professional relationships. People with ADHD (Barkley, 1997) are aware of the clues signaled by others, but are unable to use them in the right way. What is more, adults with hyperactivity disorder consider themselves to be less competent in social situations, but at the same time they state that they are more sensitive to abnormal social behaviors (Friedman et al. 2003). All the problems in social situations experienced by ADHD patients are caused by the disorder's symptoms, such as impulsiveness, inattention and hyperactivity. Conversation interrupting, cutting in, impatience, acting without thinking may be interpreted as rude and inappropriate behaviors. In the very early years "relationships with peers constitute the main problem of ADHD children, because their social norms violation and aggression are negatively seen by their peers" (Kendall, 2004:81). Crick and Dodge (1994, cited by: Friedman et al., 2003) state however, that the disorders which concern the misinterpretation of social signs may result in additional difficulties, connected not only with the disease, but also with disorders in information processing. A limited ability to restrain ones own behavior may lead to reduced ability to separate a fit of passion from the information included in the situational context, which may render the persons unable to judge objectively and adequately a social situation (Friedman et al., 2003).

MATERIAL AND METHODS

In this research we used three questionnaires:

- the Behaviours Questionnaire – experimental version (Kalka, 2005);
- the Scale of Emotional Consciousness Levels adapted by Szczygieł (2004);
- the Social Competence Questionnaire – KKS-A(D) (Maczak, 2000).

There were 119 persons enrolled in the study, 67 women and 52 men, at an average age of 26.6. The participants were assigned to the criterion group or to the controls. The first group included persons with symptoms of hyperkinetic

syndrome. There were 59 people in this group, 31 women and 28 men. The second group included persons without ADHD symptoms. In this group there were 60 persons, 36 women and 24 men. Group membership was verified with the help of the Behavior Questionnaire (Kalka, 2005): high results in the criterion group and low in the control group. Participation in the research was voluntary.

RESULTS

According to the first research hypothesis, persons with ADHD should be characterized by a lower level of recognizing and naming one's own emotions, in comparison to persons without ADHD symptoms. However, our analyses did not show any significant difference in recognizing and naming one's own emotions between groups (see Fig. 1).

The next aspect to be examined was recognizing and naming other people's emotions. According to previous research, persons with ADHD symptoms, in comparison to healthy controls, should be characterized by disorders in recognizing and naming emotions displayed by other people. This time, the results we obtained were in accordance with expectations. As shown in Fig. 2, persons suffering from hyperkinetic syndrome have difficulties in recognizing and naming the emotions that another person may be feeling at this moment; analysis of the data showed statistically significant differences in the examined range ($t = 3.4$; $p < 0.05$).

The next step was to examine the differences in various spheres of social competence. It was assumed that persons with hyperkinetic syndrome would be characterized by a lower level of such competence in comparison to the



Fig. 1. Recognizing and naming one's own emotions



Fig. 2. Recognizing and naming another person's emotions

controls. Once again, the analysis of the questionnaire produced results in accordance with expectations (Fig. 3). Hyperactive people have lower social competence than persons without ADHD symptoms ($t = 2.5$; $p < 0.05$). A detailed analysis showed that persons without ADHD symptoms handle intimate situations better, whereas the competence to behave effectively in intimate situations is considerably lower among hyperactive people ($t = 4.6$; $p < 0.05$).

The next dimension we examined concerned competence in situations of social exposition. Our data indicate that there were no significant differences between people with ADHD symptoms and the controls in this respect. This means that persons suffering from hyperactivity syndrome handle situations of social exposition as well as persons without these symptoms.

The last analyzed parameter was competence in situations demanding assertiveness. It turned out that there is a strong tendency for persons with ADHD symptoms to have lower social competence in situations demanding assertiveness ($t = 1.95$; $p = 0.053$). Those results are in accordance with the hypothesis of low social competence in persons with hyperactivity.

According to the next hypothesis to be verified, it was assumed that there would be no differences between men and women with ADHD symptoms in recognizing and naming one's own and other people's emotions, as well as in social intelligence. Our analyses indeed showed (Fig. 4) that women and men with hyperactivity symptoms do not differ from each other in terms of emotional competence. As illustrated by Fig. 4, women and men suffering from hyperactivity do not differ in terms of social intelligence either; there was a similar reduction in the scope of these functions.

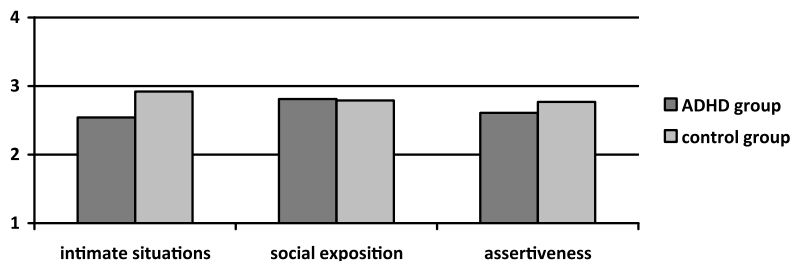


Fig. 3. Spheres of social competence

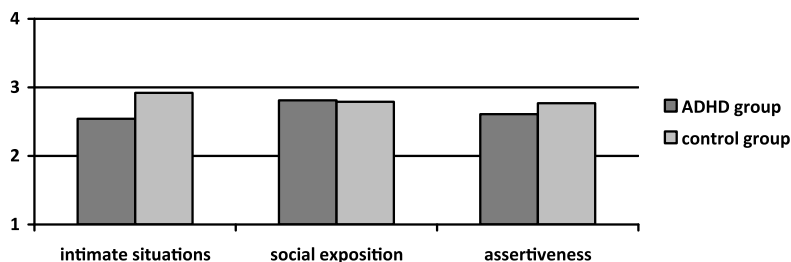


Fig. 4. Emotional and social competence – woman and men with ADHD

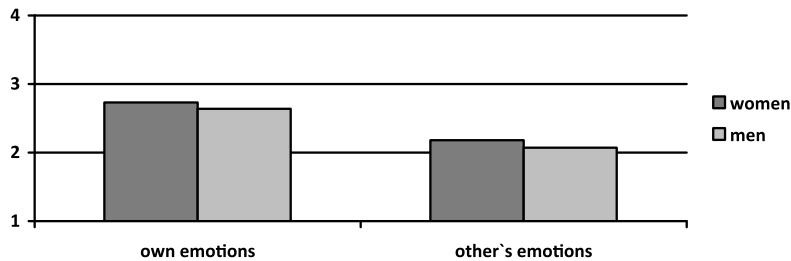


Fig. 5. Recognizing and naming one's own and other's emotions – woman and men with ADHD

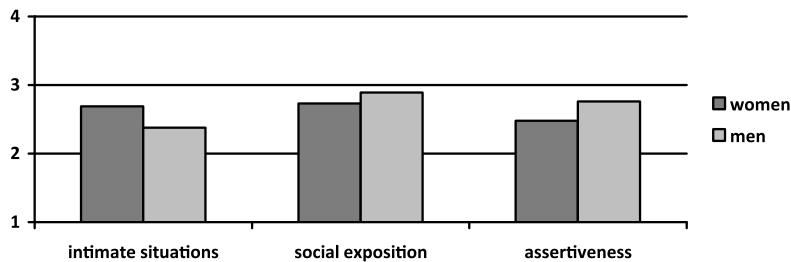


Fig. 6. Spheres of social competence – woman and men with ADHD

Recognizing and naming one's own emotions did not show any statistically significant differences; the same can be said of recognizing and naming other people's emotions (Fig. 5).

A detailed analysis of the components of social competence showed (Fig. 6) that women with hyperactivity disorder differ from men with ADHD symptoms in terms of competence in intimate situations ($t = 3.0$; $p < 0.05$). This result suggests that women suffering from ADHD are characterized by higher competence in intimate situations than ADHD men, in spite of a lower overall competence in intimate situations when compared to controls.

Competence in social exposition is developed to the same extent in women with ADHD symptoms and in men. This means that women and men with hyperactivity disorders handle social situations well enough; moreover, they handle these situations just as well as persons without ADHD. However, women with ADHD symptoms handle situations demanding assertive behavior worse than men ($t = 2.5$; $p < 0.05$). These results suggest that men with ADHD symptoms are more assertive.

To sum up, the results from the subtests that examine competence in intimate situations and situations demanding assertiveness do not comply with the hypothesis of no difference between women and men with hyperactivity disorders. Therefore the hypothesis was only partly confirmed.

DISCUSSION

The research described here was intended to find answers to five research questions. The first of these concerned differences between adults

with hyperactivity disorder symptoms and persons who do not suffer from this disorder in terms of recognizing and naming one's own emotions. Our results showed that persons with ADHD symptoms do not differ from persons without these symptoms in terms of recognizing and naming one's own emotions, which means that persons with hyperkinetic syndrome recognize their own emotions as well as healthy people do. This research is at variance with previous research conducted in the United States. Thus our results are different from those of Casey (1996, cited by: Rapport et al., 2002) and Rapport's (2002, cited by: Friedman et al., 2003), indicating that persons with hyperactivity symptoms have more difficulties in recognizing their own emotions than those without ADHD symptoms.

The second research question concerned differences between persons with and without hyperkinetic symptoms in terms of recognizing and naming other people's emotions. Our analyses showed that persons with hyperactivity symptoms have problems in recognizing and naming other people's emotions. These results are in accordance with those of previous research by Casey (1996, cited by: Rapport et al., 2002) and Rapport (2002, cited by: Friedman et al., 2003). These authors showed in their research that persons with ADHD symptoms are much worse at recognizing emotions on other people's faces than persons without ADHD symptoms (2002, cited by: Friedman et al. 2003); they are also less accurate in recognizing other people's emotional expression (1996, cited by: Rapport et al., 2002). People with ADHD symptoms are not able to concentrate for a long time, and being easily distracted they are not able to notice and describe the emotions other people feel. This is one of the main problems making the interpersonal relationships of persons with hyperkinetic symptoms difficult.

The third research question concerned differences between persons with and without hyperactivity disorder symptoms in terms of social intelligence. The results show a considerable difference in social intelligence among persons with ADHD. It turned out that these individuals have less social competence than persons without ADHD. These results are in compliance with those of Friedman and Rapport (2003), which showed that persons with hyperkinetic symptoms are aware of their own lower social competence. Our research also shows that persons with ADHD symptoms have problems with the adequate assessment of social situations, which is in accordance with the conclusions of Friedman and Rapport (2003). The evidence for problems in social functioning among persons with ADHD may explain difficulties in adjusting to social norms and frequent conflicts with the law, which are characteristic for persons with hyperkinetic syndrome.

The fourth research question involved differences between women and men with hyperactivity in recognizing and naming emotions. It turned out that women and men with ADHD symptoms do not differ from each other in terms of verbalization of their own and other people's emotions. It also turned out that there is no difference between women and men with ADHD symptoms in

terms of the level of social intelligence. Women with ADHD symptoms better handle situations which demand intimate behavior. This result does not support the hypothesis that there are no gender differences among persons with hyperkinetic symptoms. Women with ADHD symptoms have probably acquired to a greater extent competence connected with handling intimate situations than men with ADHD symptoms. These differences may result from our culture, which imposes on women duties such as child raising, and expects them to be non-assertive, fragile, and delicate. Our research shows that women are characterized by greater kindness, warmth and compassion towards other people in comparison to men (Davidson, 2005). It is women who should be more sensitive, which would lead to better handling of intimate situations. Men, on the other hand, are expected to be strong and decisive; they should take care of family's safety and its financial stability. These expectations may explain the second subtest result, in which it turned out that men with ADHD symptoms are better at situations demanding assertiveness. From very early years boys, and later men, are advised to be assertive and are praised for it. This is confirmed by Davidson in his work (2005:140-141) – "social development changes over the centuries resulted in the fact that men (as one social group) are today more assertive than women, at least in situations not connected with family life."

The last subtest showed a lack of differences between women and men with ADHD symptoms in terms of competence in situations of social exposition. This result is in accordance with the hypothesis, and may depend on cultural conditioning. Nowadays, both women and men are active in social situations. Their professions demand contacts with other people, which may cause a lack of definite differences in these behaviors, both among women and men not suffering from hyperkinetic syndrome, and among women and men with ADHD.

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