PSYCHOLOGICAL DEFENSES AND COPING STRATEGIES IN PRESCHOOL CHILDREN: GENDER DIFFERENCES AND RELATIONSHIP WITH PSYCHOLOGICAL HEALTH

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Abstract
The article represents the research and the analysis of the review of defensive mechanisms and coping strategies in the context of the mental health of preschool children of different gender. The results obtained through the study point to the differentiation of psychological defense and coping strategies/mechanisms based on gender and the condition of mental health. It is revealed that mentally healthy preschool age children prefer to use effective and socially upheld coping strategies, which reduce the pressure through socially upheld behavior patterns (e.g., through the habitual “children’s activity” – play, walk, etc.). Mentally healthy girls more often focus on overcoming difficulties within themselves. Boys, who have emotional symptoms, as usual prefer the destructive emotional expression strategy, that allows to ease the tension. Boys with the low level of anxiety are oriented to the passive distraction, while girls focus on social contacts. The received results can be used for development of the programs of psychological prevention of mental health offenses.

Keywords: psychological defenses, coping behavior, gender differences, psychological health, preschool children.

Introduction
The issue of psychological defense and coping behavior is relevant and significant because of the increasing number of external and internal conflicts of the personality and a rapidly changing sociocultural situation of children’s and adolescents’ development, which cannot but affect the process of the development and socialization of the personality. Many personal and social problems (addiction, social deviation, fears, family conflicts, etc.) have their roots in the impairments of adaptational processes. Hence, researchers and practitioners become more interested in psychological defense mechanisms and coping strategies, which

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contribute to psychological well-being and enable to overcome difficulties and crises successfully.

The development of defense mechanisms and coping behavior and learning skills that are necessary for overcoming difficult life situations is an important and necessary part of the child’s personality development. During ontogenesis, each child forms a unique individual style of defense behavior, which manages internal state and overcomes the stresses of everyday life (Kuftyak & Samohvalova, 2015).

The study of psychological defenses and coping behavior as the areas of psychological knowledge in foreign science is based on deep and old traditions. The notion “psychological defense” was introduced in psychology by Sigmund Freud at the end of the XIX century. In his metapsychological theory of defense, he treated psychological defenses as a means used by “Ego” for reducing internal tension and anxiety. Further, Freud approaches to the understanding of defense mechanisms basing on the sources of anxiety, which they try to remove. Freud (1936) stressed that defense mechanisms are protective and pointed out that they prevent behavior from disorganization and collapse and maintain a normal psychological status of personality (Freud, 1936). The idea that earlier defense mechanisms participate in the development of Ego and its differentiation from the external world was introduced and developed in Klein’s (2016) works. Horney (2013) touched upon the issue that defense strategies are used to overcome a conflict between a personality and society.

Pursuant to modern representations, defense mechanisms are understood as a system of regulatory mechanisms aimed at eliminating or minimizing negative experiences associated with internal conflicts and states of anxiety and discomfort, which injure a personality. All defenses have a common trait – they are independent from the person’s conscious wishes and intentions; therefore, we can only observe their external manifestations (Nikolskaia & Granovskaya, 2010).

In 1960s, a new scientific trend originally related to the area of studying defense mechanisms was called coping behavior research. The notion “coping” is treated as constantly changing cognitive and behavioral attempts to manage specific external and/or internal demands, which are evaluated as too stressing or exceeding the personality’s resources (Lazarus & Folkman, 1984).

In terms of psychology, coping is designed to adapt a person to the demands of the situation in the best way, to weaken or soften these demands, to try to avoid them or get used to them and thus to weaken the stress impact of the situation. Therefore, the main task of coping behavior is to provide and maintain the person’s well-being, his/her physical and mental health, and satisfaction with social relations (Lazarus & Folkman, 1984).

Researchers identify several goals specific of coping. Thus, Cummings (Cummings et al., 1994) mentions problem solving and health improving. Zeidner identifies eight goals of coping behavior: to resolve a conflict or a stress situation; to reduce physiological or biochemical responses; to reduce physiological distress; to normalize social functions; to return pre-stress activity; to achieve one’s well-being and well-being of others as determined by the situation; to acquire positive self-esteem; to become aware of efficiency (Zeidner & Saklofske, 1996).

Psychoanalytical literature represents quite clear ontogenetic organization of psychological defenses. Anna Freud’s (1936) classification was one of the first chronological classifications of defense mechanisms, which determined the succession of their maturation in ontogenesis. Mechanisms associated with perceptive processes are among the first to emerge. It is the processes of sensation, perception, and attention that are responsible for defenses
associated with wrong seeing and misunderstanding of information (perceptive defenses). This group involves denial and regression as well as their analogues. These defenses are the most primitive, they characterize a personality, which abuses them, as emotionally and personally less mature. Then defenses associated with memory processes, namely with forgetting information (repression and suppression) emerge. The most complicated and mature defenses associated with information processing and revaluation (rationalization) are the last to occur. They are formed with the development of thinking and imagination processes.

Basing on modern research, Cramer (2015) elaborated and described a theoretical model of development of psychological defense mechanisms, which was confirmed empirically. The author assumes that denial is a primary way of defense for junior children. As a child grows up (more precisely, after the age of 7) denial becomes far less important and gives way to projection – a more complicated mechanism in the cognitive aspect. Projection remains priority throughout the entire junior school age and diminishes by the youth period. At this period, a more complicated mechanism in the cognitive aspect – identification, which develops throughout the entire childhood, becomes the leading one.

Cramer (2015) thinks that unconsciousness is one of the reasons of a successful defense, i.e. “deceiving” oneself and losing one psychological defense and its replacement by another. Previous research has shown that as children grow up they begin to understand how different defenses function. Children aged 5-6 are hardly aware of denial, while it is difficult for 11 year old children to understand projection. The results show that as soon as a child becomes aware of a defense and its effect, the efficiency of this defense decreases immediately. In this case, children may abandon using this defense and pass to a new, more complicated and, consequently, less clear defense.

Golovina (2009) has studied psychological defense mechanisms in junior school age and revealed a tendency to the stabilization of psychological defenses with age. The first-grade children have nine defense mechanisms (three mechanisms per child in average) in the repertoire, while in the fourth-grade children, the repertoire consists of six mechanisms and there is one mechanism per child in average. The established negative relationship between the number of psychological defense mechanisms and the type of response to frustration reveals the relationship between psychological defense mechanisms and coping strategies.

The research of the dynamics of coping behavior at various stages of children’s development is mostly associated with a modern stage of psychology development. Nikolskaya and Granovskaya (2010) were the first to trace the changes in the choice of coping strategies in children aged 7-9 and 10-11. They have revealed that junior children resort to behavioral coping strategies and switch to distraction more often than senior children (“I’m walking”, “I’m running”, “I’m riding a bicycle”, “I’m listening to music”), while junior adolescents are likely to comprehend and rationalize the situation (“I’m thinking about it”).

Smirnova (2010) has conducted the most complete study of the dynamics of coping behavior establishment in children aged 7-11. The period from 7 to 11 is a period of the formation of a child’s coping style. It is uneven and heterochronic. Besides, it has a critical course during age changes and crises. A more mature, whole, and socially acceptable coping style focused on problem solving is established from junior school age to junior adolescent age. As a child grows up, the choice of defense behavior becomes more conscious and constructive, which indicates the development of regulatory experience. The age of 8 and 11 is marked as critical in the establishment of a coping style. At the age of 8, children began to use the majority of coping strategies less frequently, which is associated with the process of
adaptation to school and related psychological stress. At the age of 11, there is disorganization and breakdown of already “learnt” mechanisms of defense behavior, since a new age crisis begins. Junior adolescents use a constructive coping style (problem solving, seeking social support, taking responsibility and internalization) established in the previous age period less frequently. They are more likely to resort to external coping focused on themselves and objects and internal ways of processing (internalization and distancing).

With account for modern scientific representations of the mechanisms of the child’s personality development, the author considers the establishment and development of coping behavior depending on individual and family factors. We identify the quality of attachment, the system of the child’s personal relations, family context, child-parent relations (child experience of relations), and model of parents’ coping behavior as factors influencing the formation and establishment of coping behavior mechanisms (Kuftyak, 2016).

Nowadays, modern psychology acknowledges the idea that a person uses quite a wide range of defense mechanisms and coping strategies in normal everyday life, each of which can contribute to overcoming a challenging situation constructively (Kuftyak et al., 2017). Defense responding and overcoming difficulties become pathological if they are rigid, undifferentiated, and socially inadequate.

We assume that health as a characteristic of the level of functioning of human organism’s systems includes the system of mental adaptation as well. Therefore, we find it possible to consider defense mechanisms and coping strategies in the spectrum of psychological health indices.

The goal of the study is to investigate defense mechanisms and coping strategies in the period of preschool age in correlation with the peculiarities of psychological health.

Research object: defense mechanism and coping strategies among preschool age children according to gender, condition of psychological health and anxiety level.

We hypothesize that high levels of anxiety and low levels of psychological health contribute to preschool children’s choice of primitive psychological defense mechanisms and maladaptive coping strategies based on gender.

Research participants. We looked for participants within preschool institutions. The criteria of including the test subjects in search samples were as follows: a complete one-child family, the child having the 1 health group (health groups – a term used for an indicative assessment of children’s health. Based on a comprehensive health assessment, the pediatrician sets a health group. 1 health group is healthy children who do not have health problems). The sample involves 121 children (mean chronological age is 5.9) including 69 boys (mean chronological age is 6.0) and 52 girls (mean chronological age is 5.9). The participation of children in the study took place after getting the informed consent from their parents. The study complies with the modern ethical standards regulations developed according to WMA Declaration of Helsinki.

Research method. We have used the following techniques for the expert assessment of the psychological health state. Assessment of anxiety involving observation (Sear’s technique) aimed at defining the level of anxiety in preschool children (Khukhlaeva & Khukhlaev, 2015).

Khukhlaeva’s “List of teacher’s assessment of child’s psychological health” aimed at estimating the state of psychological health indices (Khukhlaeva & Khukhlaev, 2015). We have identified three indices of psychological health in Khukhlaeva’s technique (Kuftyak’s modification): a personal component, an emotional component, and a social component, which has allowed us to include different meaningful characteristics of health in the study.
We have estimated psychological defense mechanisms by means of Children Psychological Defense Assessment Map (Peri & Plutchik), adapted by Chumakova (1999). The technique enables to evaluate the type of psychological defense. The authors suggest defining eight defense mechanisms (denial, repression, regression, compensation, displacement, projection, reaction formation, and intellectualization) treated as basic in Plutchik’s structural theory. The assessment of the mental health of children and their level of anxiety and also the psychological defense mechanisms had been conducted by parents (100 %) and psychologists of pre-school institutions (100%). The average score (arithmetic mean) of adult evaluations was used.

We have studied coping behavior by means of the Schoolager’s Coping Strategies Inventory of Ryan-Wegner adapted and modified by Nikolskaia & Granovskaya (2010). The completion of the questionnaire was conducted by the child individually. We have united 26 coping strategies identified by means of the inventory in 6 basic categories: reflexive withdrawal, passive distraction, discharge; search for spiritual support; destructive emotional expression; active distraction; social contacts (communication) for obtaining support. This technique (unification) has allowed us, first, to make coping strategies used by children closer to the basic styles of personality’s coping behavior and second, to use the methods of mathematical data processing later.

Mathematical-statistical processing of the results of the study is carried out using SPSS V.19 computer packages. It includes a correlation analysis (Spearman r rank correlation) and the application of non-parameter criteria of evaluating significant differences between non-related samples (Mann-Whitney U-test).

**Research results**

The analysis of boys’ and girls’ psychological health based on expert assessments of preschool establishments specialists (nursery school teachers, a psychologist) has not revealed any differences. The obtained data allow us to consider children relatively healthy.

The analysis of the results by Sears’s inventory identified as the indices of the anxiety level has revealed that boys have more severe anxiety (p=0.005) than girls.

Further analysis has revealed that preschool children use all defenses; however, their intensity varies. We have revealed differences between boys and girls in the manifestation of basic defenses. Girls resort to the compensation mechanism more actively than boys do (p=0.017). Preschool boys are more likely to use replacement (p=0.014), projection (p=0.002) and intellectualization (p=0.006) than girls.

A comparative analysis of the choice of coping strategies has revealed statistical differences between boys and girls by the destructive emotional expression strategy (p=0.013). Boys are more likely to abreact an affect in a difficult situation through socially disapproved behavior and manifestation of negative emotions than girls are.

Table 1 represents the results of correlation analysis of the relationship between psychological defense mechanisms and the indices of psychological health in the groups of boys and girls.
Table 1. Correlations between psychological defense mechanisms and the indices of psychological health

<table>
<thead>
<tr>
<th>Anxiety (Sears’s scale)</th>
<th>Indices of psychological health</th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Personal component</td>
<td>Social component</td>
<td>Emotional component</td>
<td>Final index of health</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>G</td>
<td>B</td>
<td>G</td>
<td>B</td>
<td>G</td>
</tr>
<tr>
<td>Regression</td>
<td>0.45**</td>
<td>0.616**</td>
<td>0.356**</td>
<td>0.447**</td>
<td>0.359**</td>
</tr>
<tr>
<td>Compensation</td>
<td>-0.721***</td>
<td>-</td>
<td>-0.595***</td>
<td>-</td>
<td>-0.622***</td>
</tr>
<tr>
<td>Reaction formation</td>
<td>-0.469**</td>
<td>-0.631***</td>
<td>-0.505***</td>
<td>-0.643**</td>
<td>-0.527***</td>
</tr>
<tr>
<td>Intellectualization</td>
<td>-0.634***</td>
<td>-0.634***</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: B-boys; G-girls; * – р < 0.05; ** – р < 0.01; *** – р < 0.001

In the group of boys, all the indices of psychological health (a final index of psychological health, a personal, social, and emotional component of health) and anxiety reveal negative relations with the compensation and reaction formation mechanisms as well as a positive correlation with the regression mechanism.

The group of girls reveals a similar picture. Thus, all the indices of psychological health (a final index of psychological health, a personal, social, and emotional component of health) and anxiety are negatively related to the reaction formation mechanism and positively related to the regression mechanism.

Further, we have juxtaposed the indices of psychological health and the choice of coping strategies (Table 2).

Table 2. Relationship between coping strategies and the indices of psychological health

<table>
<thead>
<tr>
<th>Coping strategies</th>
<th>Group of boys</th>
<th>Group of girls</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Indices of health</td>
<td>r</td>
</tr>
<tr>
<td>Passive distraction, discharge</td>
<td>A</td>
<td>-0.351*</td>
</tr>
<tr>
<td></td>
<td>P</td>
<td>-0.588***</td>
</tr>
<tr>
<td></td>
<td>S</td>
<td>-0.610***</td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>-0.598***</td>
</tr>
<tr>
<td></td>
<td>t</td>
<td>-0.606***</td>
</tr>
<tr>
<td>Seeking spiritual support</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>–</td>
<td>–</td>
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<td></td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Destructive emotional expression</td>
<td>A</td>
<td>0.371*</td>
</tr>
<tr>
<td>Active distraction</td>
<td>P</td>
<td>-0.322*</td>
</tr>
<tr>
<td></td>
<td>S</td>
<td>-0.341**</td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>-0.379**</td>
</tr>
<tr>
<td></td>
<td>t</td>
<td>-0.338**</td>
</tr>
</tbody>
</table>
Social contacts for obtaining support (communication) | P | S | E | t | A | t
--- | --- | --- | --- | --- | --- | ---
P | -0.279* | -0.321* | -0.412** | -0.321* | -0.513** | -0.520***
S | -0.513** | -0.507** | -0.510** | -0.580*** | -0.520***
E | -0.513** | -0.507** | -0.510** | -0.520***
t | -0.321* | -0.321* | -0.321* | -0.321* | -0.321* | -0.321*

Note: A – anxiety (Sears’s inventory); P – personal component of psychological health; S – social component of psychological health; E – emotional component of psychological health; t – a final index of psychological health; * – p < 0.05; ** – p < 0.01; *** – p < 0.001

The indices of psychological health (Khuklaeva’s technique) in both boys and girls are negatively related to passive distraction, active distraction and seeking social contacts for obtaining support coping strategies. At the same time, we have revealed some differences in boys and girls. In the group of girls, we have found negative relations between the indices of psychological health and seeking spiritual support strategy.

In the group of boys, the index of anxiety is positively related to destructive emotional expression strategy and negatively related to the passive distraction strategy. In girls, the index of anxiety reveals negative correlation with the seeking social contacts for obtaining support strategy.

**Discussion**

Referring to the general state of children’s mental health, we note that children are generally adapted to society. Besides, they are emotionally stable and accept themselves. In boys, a higher level of anxiety is associated with physiological peculiarities: they are more active and mobile, which is undoubtedly reflected on their behavior. This, in turn, leads to more restrictions, emotional discomfort, and punishments than in girls, which contributes to the formation of anxious states and tension. We assume that boys reveal less stable psychological health, which allows us to refer to them as a “risk group”.

Analyzing the obtained results, we should note that we have registered the specifics of using psychological defense mechanisms in preschool age with account for children’s gender. The obtained data agree with the results of analogous studies, which consider the relationship between psychological defense mechanisms and the person’s gender (Dvorianchikov & Nosov, 2010; Bogdanova et al., 2016). A number of studies report that some defenses are typical for a masculine or feminine gender. Such defenses as suppression and intellectualization are more characteristic of men. Typical female defenses involve compensation. Note that defense mechanisms typical for boys and girls (rationalization, projection, replacement, compensation) are referred to the group of defenses with transformation or bias of the content of thoughts, feelings, and behavior.

Pursuant to Plutchik’s structural theory of defense mechanisms, the mechanism of replacement is based on the emotion of anger, while compensation is based on sadness (Perrez & Baumann, 2012). Basing on analysis, Cross & Madson (1997) have figured out that we can discuss the existence of “male” and “female” emotions, i.e. emotions more significant for a certain gender: for men, this is usually anger, while for women – sadness. We can discuss the gender specifics of emotional sphere: men are more emotional in expressing anger and aggression while women – in expressing fear and sadness. The demonstration of emotional experiences is strictly regulated by society. We can discuss the influence of gender stereotypes...
that prescribe boys and men to demonstrate more aggressive tendencies and refuse from the manifestations of fear and sadness, while women are mostly prescribed to express negative emotions (fear, sadness, depression). It is known that boys are likely to be encouraged by their peers for the manifestation of aggression, while girls expect negative sanctions. Thus, we can discuss that boys’ aggression is a consequence of a masculine culture.

The projection defense is based on rejection. There are data that men perceive themselves as more sure in themselves compared to women (Bendas, 2007). Therefore, boys use defenses aimed at overcoming fear of self-unacceptance and perplexity because of gender stereotypes in society.

Therefore, the revealed gender differences in defense mechanisms are associated with gender stereotypes in society. A child unconsciously forms a defense strategy, which is largely supported by society and corresponds to his/her ideas of himself/herself as a representative of a certain gender (male or female).

We can conclude that a psychologically healthy personality uses defense mechanisms focused on transforming the content of thoughts, feelings and behavior, which are socially approved or directed at personal changes. In the situation of impaired psychological health, a child focuses on using a manipulative defense, namely regression. Thus, psychologically healthy preschool children prefer efficient and socially approved coping strategies, which reduce tension through habitual “child activity”, actions to satisfy basic needs (food, sleep, internal comfort) and social communication. Successful girls are usually focused on overcoming difficulties inside themselves. All coping strategies chosen by children enable them to adjust to difficult situations.

It is interesting how anxious and non-anxious boys and girls manifest the choice of psychological defense mechanisms. In case of higher anxiety, boys use socially disapproved destructive ways to overcome difficulties for reducing the level of stress, while boys with a low level of anxiety prefer to choose more approved ways to cope with difficulties focused on excluding any activity and satisfying personal needs (food, sleep, keeping internal balance). Girls with a low level of anxiety prefer to resort to the strategy realizing their need in support from outside.

Conclusions

As a result, the research hypothesis has been confirmed: the specificity of using the psychological defense mechanisms and coping strategies in preschool age taking into account the gender of children, the condition of psychological health and anxiety level has been established.

There are gender differences in using defense mechanisms and coping strategies in preschool age. The most frequently used defense mechanism in girls is compensation, while in boys – replacement, which is probably conditioned by gender stereotypes popular in society. Boys usually choose the destructive emotional expression strategy, which enables them to abreact negative energy through socially disapproved behavior and manifestation of negative emotions.

Children with preserved psychological health use defense mechanisms focused on transforming the content of thoughts, feelings and behavior, which are socially approved or directed at personal changes. Children with impaired psychological health use manipulative defenses, namely regressions. Psychologically healthy preschool children prefer using efficient and socially approved coping strategies, which reduce tension through habitual “child activity”,
actions to satisfy basic needs (food, sleep, internal comfort) and social communication. Successful girls are usually focused on overcoming difficulties inside themselves.

Boys with higher anxiety usually resort to the destructive emotional expression strategy due to the necessity to reduce emotional tension. Boys with a low level of anxiety are focused on passive distraction, while girls – on social contacts.

Thus, learning socially approved or non-constructive defense mechanisms and coping strategies juxtaposes with the indices of psychological health and influences further development of the child’s personality in different ways. Socially approved and constructive behavior provides the person’s ability to overcome difficulties, increases emotional comfort and contributes to the formation of self-confidence, which preserves the personality’s psychological health. Fixation of non-constructive ways of behavior, which do not actually resolve internal and external conflicts, can be treated as a factor, which causes the impairments of psychological health.

Limitations

This study investigates psychological health basing on the expert evaluation by adults (nursery school children, psychologists), which enables to obtain an objective evaluation of health. We study correlations and not cause-effect relations between the indices of health and the use of defense mechanisms and coping strategies by children and focus on one of the mechanisms of ontogenesis of the personality’s defense system.

References

**PSYCHOLOGICAL DEFENSES AND COPING STRATEGIES IN PRESCHOOL CHILDREN: GENDER DIFFERENCES AND RELATIONSHIP WITH PSYCHOLOGICAL HEALTH**

**Summary**

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The analysis of literature suggests that psychological defenses and coping behavior play a significant role in the preservation of health and well-being. This article presents the research devoted to the review of defensive mechanisms and coping strategies in the context of preschool age children’s mental health. 121 children (mean age is 5.9) participated in the research, among whom there were 69 boys and 52 girls. Boys show less persistence of mental health and the increased level of anxiety compared with girls. The typical mechanisms of psychological defenses both for boys and girls are defenses related to transformation or distortion of thoughts, feelings and behavior content. As for girls, compensation is the most used defensive mechanism, as for boys, this mechanism is substitution. In difficult situations, boys more often choose the strategy of the destructive emotional expression. Children, who have safe mental health, use the defensive mechanisms, which are socially upheld or focused on personality changes. Children with the mental health disturbance use the defense of manipulative type, namely regression. Psychologically healthy preschool age children prefer to use active and socially upheld coping strategies. During acute anxiety, boys more frequently resort to the destructive emotional expression strategy and in the low level of anxiety boys are oriented to the passive deflection and girls are concentrated on social contacts. The use of destructive and emotional methods...
of response in situations of internal and external conflicts can be considered as the factor causing the disturbance of the mental health. The received results may be used for development of domestically produced programs for the psychological prevention of the mental health disturbance.

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