The Influence of Stress on Children's Speech in the Context of War

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Abstract. War is an unpredictable and unbearable burden for the human psyche. Existential threats, fear for life, and loss of loved ones lead to the increase in the incidence of non-psychotic borderline disorders, including post-traumatic stress disorder. Children are the most vulnerable part of the population subject to psychotraumatic experiences. While being in a war zone, they undergo traumatic experiences that deform their consciousness, values, and worldview. Children show signs of mood swings, depression, unprovoked aggression, obsessive behavior, anxiety attacks, and and expect reoccurrence of traumatizing events. The article analyzes speech features of children who have witnessed the Russian invasion of Ukraine that started on February 24, 2022. The research explores verbal expressions of young Ukrainian refugees from the war zone, identifies the speech disorders caused by the experienced stress. The study describes specific verbalization of the psychological state of the young witnesses of missile and artillery attacks, the children from the occupied territories as well as those who have not witnessed the military actions but who have had to live in refugee camps. In particular, the paper focuses on the ways to verbalize fear, anxiety, obsessive states, types of verbal aggression and means chosen by the research subjects to talk about deaths of their loved ones.

Keywords: post-traumatic stress disorder, speech, verbalization, fear, speech impairment, cognitive apathy, verbal aggression.

Скрипник Антоніна, Лабенко Ольга. Вплив стресу на мовлення дітей в умовах війни

Анотація. Війна є непередбаченим та непосильним тягарем для людської психіки. Загроза існуванню, страх за життя, втрата близьких призводять до росту числа непсихотичних межових розладів в тому числі і до посттравматичних стресових розладів. вразливою частиною Найнезахишенішою та населення, ЩО € відкритою лля психотравматичного досвіду, є діти. Перебуваючи у зоні військового конфлікту, вони набувають трагічного досвіду, який деформує їхню свідомість, цінності та світогляд. У дітей спостерігаються перепади настрою, депресія, немотивована агресія, нав'язливі стани, непереборний страх і очікування повтору пережитих подій. Стаття присвячена огляду особливостей мовлення дітей, які стали свідками російсько-української війни, що розпочалася 24 лютого 2022 року. Дослідження зосереджується на аналізі вербальних висловлювань дітей-біженців із зони військового конфлікту і виявлення мовленнєвих порушень, спричинених пережитим стресом, а також на описі специфічних форм вербалізації психологічного стану дітей, що були свідками бомбардувань та обстрілів, дітей із окупованих територій та дітей, які не будучи прямими свідками воєнних дій, змушені жити у

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таборах для біженців. Розглядаються способи вербалізації страху, тривоги, нав'язливих станів, особливості передачі дитиною інформації про смерть близьких, аналізуються види вербальної агресії.

Ключові слова: посттравматичний стресовий розлад, мовлення, вербалізація, страх, збіднення мовлення, когнітивна апатія, вербальна агресія.

Introduction

According to the Presidential Office of Ukraine, as of December 12, 2022, more than 1,298 Ukrainian children have suffered from Russian armed aggression since the outbreak of the war in Ukraine on February 24, 2022: 443 children were killed and over 855 were wounded. Over 332 children are reported missing. More than 1,000,000 have fled to the EU as refugees. Thousands of children have been orphaned, thousands are in the occupied territories, and thousands of children have been deported by Russians and placed under guardianship of strangers.

Extensive research shows that wartime trauma negatively impacts children's mental health (Aziz & Vostanis, 1999; Dimitry, 2012; Drury & Williams, 2012; Liu, 2017; Macksoud et al., 1993; Samara et al., 2020; Slone & Mann, 2016). Stress, anxiety, and other mental health issues associated with wartime trauma are known to have significant impact on children's development and wellbeing (Hill et al., 2018; Price et al., 2016; Saign et al., 2006; Strawn et al., 2021; Yule & Smith, 1995).

Humans express their psychological state and emotions primarily through their speech behavior (Kappen et al., 2022, Slavich et al., 2019). In fact, speakers' emotional strain is verbalized at every language level with linguistic means used to convey tension or anxiety. The purpose of our study is to analyze verbal expressions of war refugee children, to identify their speech disorders caused by stress as well as specific verbalizations of the psychological state used by the children who have witnessed bombing and shelling, the children from the occupied territories, and the children who have not been witnesses of hostilities but who are forced to live in refugee camps.

Methods

Ethical Approval

At the stage of organizing the study, the parents of all participants (minors participated in the study) were acquainted with the regulatory documents on the ethics of scientific research. Consent (in writing) for data collection was obtained from the parents. The study was conducted in compliance with the relevant ethical standards and rules; no moral pressure was exerted on the survey participants.

All procedures carried out with the participation of respondents were performed in accordance with the regulatory requirements for ethics and academic integrity approved at Taras Shevchenko National University of Kyiv enshrined in the "Code of Ethics of the University Community" as well as in the Helsinki Declaration.

Participants

The study involved 60 respondents: Group 1 - 20 children: 10 childrenwitnesses of bombings and shelling (Kyiv region: Gostomel, Irpin, Moshchun, Bervitsa, Ploske, Svitilnya, Lukianivka; Mariupol, Chernihiv, Kharkiv) and 10 refugee children from the occupied regions (Kherson (four persons), Melitopol two persons), Izyum, Bakhmut, Nova Kakhovka (two persons)), Nova Kakhovka (two persons)); Group 2 - 20 refugee children from the regions where there were no active hostilities, and the children only witnessed air raids and distant bombing and left their place of residence in the first 10 days of the war (Kyiv (12 persons), Mykolaiv (three persons), Sumy (two persons), Cherkasy (one person), Vinnytsia (two persons)). Group 3 is a control group, which includes 20 children, who are French citizens of the corresponding age studying at schools in the settlements of Aigues-Mortes, Le Cailar, and Aubais of the territorial commune of Aimargues, Occitania region. The ages of children in each group are 5-7 years - 10 people (five girls, five boys) and 10 people 8-10 years old (five girls, five boys).

The study was conducted in the Mas de Torras tourist center in the city of Emargue (France), where a camp for Ukrainian refugees was deployed, as well as in the summer camp located in a municipal institution of preschool education (kindergarten) of compensatory type "Romashka" in the city of Vyshneve, Kyiv region (Ukraine), where children with the status of IDP (internally displaced person) stayed.

The children's parents participated in a separate survey. There were 28 people in total (16 people were the parents of Group 1 children and 12 adults were the parents of Group 2 children).

Instruments

Taking into account the purpose and the objectives of the study, the following methods were used: observation, conversation, testing methods (symptomatic questionnaire by Jerzy Aleksandrowicz (Aleksandrowicz et al., 1981, Rewer, 2000), from which the authors have excluded the questionnaire Group 7 "Sexual disorders" (questions #7, 27, 58, 67, 70, 87, 107,127, 137), as well as question #112 "Alcohol abuse", taking into account the age of the respondents; Buss-Durkee hostility questionnaire (Buss & Durkee, 1957), in which only questions from the position "verbal aggression" were selected: #7, 15, 23, 31, 39, 46, 53, 60. 71, 73, 74, 75); and the parental questionnaire to assess children's traumatic experiences (Tarabrina, 2000).

Data Collection Procedure

The study was conducted in three stages. The first stage (March 25, 2022 – April, 15, 2022) was devoted to observation of the participants to the experiment. During this period, a survey of the parents was also conducted using the Tarabrina questionnaire. At the second stage (April 18, 2022 – May 20, 2022), the surveys based on the questionnaires by Aleksandrovych and Buss-Durkee were conducted. The third stage (May 23, 2022 – July 22, 2022) involved the statistical processing of the survey results, systematization, and formulating the conclusions.

Psychologists believe that the reliability and the trustworthiness of results depends on a trusting relationship between the tested and the interviewer (Lawrence et al, 2011, Oxburgh, 2011). For three weeks prior to the study, educators and volunteers of the refugee camp supported the researchers in the attempt to build rapport: the researchers spent free time with the children, played, talked with them on various topics.

The following data were recorded in the standardized observation protocol: emotional difficulties; speech features; the peculiarities of the children's interactions with their parents, peers and educators (or volunteers); conflict situations between children, etc.

The parental questionnaire by Tarabrina (2001) was used for independent examination of children's traumatic experiences. The survey involved 28 parents (16 parents of Group 1 children and 12 parents of Group 2 children). Prior to the study, the researchers had a conversation the parents in order to motivate them to fill out the questionnaire accurately and appropriately. The questionnaire consisted of three parts: 1. biographical data of the child; 2. screening (specifics of the stressful event); 3. statements, which included two blocks: the first block contained five questions about the child's behavior immediately after the event, and the second block included 30 statements that described the child's behavior during the following two months. These statements had to be either confirmed or denied.

The psychological state of the respondents was assessed using the Aleksandrovich questionnaire, which allows identification of psychotic and neurotic disorders. The questions of this questionnaire concern difficulties and ailments that occur in neuroses (F40-F48). Knowing which of them have occurred during the following months allows us to assess the degree of psychological problems of Ukrainian children in the refugee camp. When a disorder was detected, the authors tried to establish the manner of verbalization of the detected psychological disorder. For each indicator revealed with the Alexander Symptom Inventory, low, medium, and high levels of PTSD symptom severity are derived in accordance with the keys of the methodology given to this questionnaire by Karsavarsky (2004).

A test using 129 questions of the symptomatic questionnaire was conducted orally in several stages: 10 questions per day for children of 5-7 years old and 15 questions per day for children of 8-10 years old. The wording of the questions was adapted to the age of each child. The survey of the younger children was conducted partly in the form of a game using fairy tales and stories, where the child could draw a parallel between their emotions and the emotions of the characters. The children aged 8-10 mostly did not need such an adaptation but only clarification of the content.

The results of the behavioral studies were compared with the results of the surveys of participants in the third control group. The symptomatic questionnaire was translated into French. The survey was conducted at a school with the help of tutors and a psychologist.

The analysis of verbal aggression in children-respondents was conducted using the Buss-Durkee Hostility Inventory (BDHI), the reliability and validity of which is confirmed by numerous psychological studies.

When creating their questionnaire, which differentiates the manifestations of aggression and hostility, Buss and Durkee identify different types of reactions (physical aggression, irritation, negativism, verbal aggression, etc.). In our study into the impact of stress on children's speech in wartime, we limit ourselves to one portion of the questionnaire, namely "verbal aggression": expression of negative feelings both through the form (shouting, screaming) and through the content of verbal responses (curses, threats, etc.). That is, during the testing, the authors had to get affirmative answers to questions #7, 15, 23, 31, 46, 53, 60. 71, 73, and negative answers to questions #39, 74, 75.

Results

Before conducting the study, we got acquainted with the information about the microsocial upbringing conditions of the two experimental groups of respondents (Table 1).

Table 1

Family conditions	Number	%
1. complete family	29	72
2. single-parent family	11	28
Child is raised by:		
2a. mother	8	20
2b. father	2	5
2c. guardian	1	3
Total	40	100%

Family Composition and the Nurturer of the Children in the Study

The analysis of the parental questionnaire allowed us to identify the main problems of children with PTSD (according to their parents). The distribution of the results is presented in Table 2:

Table 2	
Results of the Parental Questionnai	re

Disorder	Group 1	Group 2
1. increased anxiety and fears	85%	60%
2. persistent symptoms of increased excitability	45%	40%
3. reduction in the number of contacts with others	40%	20%
4. regressive forms of behavior	4%	0%
5. symptoms of avoidance	35%	15%
6. somatic complaints	45%	25%
7. sleep disturbances	70%	50%

Many children had combined problems, which is reflected in the statistics. As can be seen from the table, the parents of the children who directly witnessed hostilities report on average 20% more manifestations of the consequences of the experienced stress than the refugee children from regions where there were no active hostilities.

The parents were also separately asked whether they had noticed any changes in their child's speech in a state of emotional stress (in a shelter during bombing, during evacuation through a dangerous area: for example, through the damaged bridge in Irpin, or on the roads of Kyiv region during shelling). Twelve parents of the children in Group 1 noticed that their children (aged seven, nine and ten) had difficulties in formulating their thoughts, which manifested in an increase in the number and duration of pauses, word searches, and semantically irrelevant repetitions. Two parents of children aged five and six also noted their children's search for words and their replacement with gestures. Another mother noted a decrease in her five-year-old child's vocabulary.

The next stage of the study was testing according to the symptomatic questionnaire of Aleksandrovich, which allowed to quantify the degree of severity of neurotic syndromes in the subject. The results of the questionnaire are presented in Table 3.

No.		Group 1	Group 2	Control group
1.	fear/phobias	17 (85%)	10 (50%)	5 (25%)
2.	depressive disorders	10 (50%)	5 (25%)	0
3.	anxiety/stress	18 (90%)	14 (70%)	1(5%)
4.	sleep disorders	15 (75%)	9 (45%)	4 (20%)
5.	frequent tantrums	12 (60%)	11(55%)	3 (15%)
6.	neurasthenic disorders	10 (50%)	3 (15%)	0
7.	derealization	2 (10%)	0	0

Table 3

Results of the Aleksandrovich Symptomatic Questionnaire

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8.	obsessions	15 (75%)	11 (55%)	0
9.	difficulties in social contacts	16 (80%)	8 (40%)	1 (5%)
10.	hypochondriac disorders	3 (15%)	1 (5%)	0
11.	somatic disorders	13 (65%)	8 (40%)	0

After calculating the indicators of all subscales of the questionnaire, it turned out that for each item of the questionnaire between 90% and 50% of children from Group 1 and between 55% and 15% of children from Group 2 showed the presence of these disorders. Items 7 (derealization) and 10 (hypochondriac disorders) have a low expression. In the control group, item 1 (fear/phobia) has a high rate, which is explained by the fact that fear is one of the basic emotions of a child (Hoge et al., 2017) and item 4 (sleep disturbance) is quite common in children (Simola et al., 2014). When comparing the average of the survey results, the psychological state of the children who witnessed hostilities immediately (arithmetic mean 12) has more manifestations in all items of the questionnaire than in children who indirectly witnessed war (arithmetic mean 8) by 20% and 55% more than in children of the control group (arithmetic mean 1).

The authors analyzed the verbalization of the detected indicators of psychological problems according to the following points: stress (fear, phobias, anxiety), tantrums, derealization, obsessive states, difficulties in social contacts.

Fear is one of the dominant human emotions, which is characterized by various forms of its manifestation (Dymond et al., 2015). Considering the vital importance and fundamentality of the emotion of fear, it can be assumed that the potential of means of verbalizing it is high. We identified the following types of fear (Table 4):

Table 4

Types of Fear

Types of fear	Group 1		Group 2		Control group	
	Number	%	Number	%	Number	%
fear of war	20	100	20	100	2	10
fear of parent's death	16	80	15	75	5	25
fear of being alone	20	100	17	85	8	40
constant feeling of danger	15	75	7	35	0	0
fear of the dark	18	90	13	65	7	35

The children from the experimental groups verbalize their fear of war with the following questions: "When will the war end?" (30 people), "When will our army win?" (25 people), "Our country (city, village, i.e., place of permanent residence) will not be captured by the Russians, will it?" (20 people), "The Russians will not reach here (place of temporary residence), will they?" (15 people), "They won't bomb us, right?" (10 people). Sixteen out of the twenty-eight parents noted that

during the first weeks (up to a month) of the war, the question *"When will the war end?"* had taken on an iterative nature: the child had asked it at least once a day.

The authors noted one case of a complete mutism of a five-year-old boy who had witnessed the bombings. Another respondent (G. boy, 9 y.o.) had temporary mutism after the explosion, which occurred when the child was outside. The boy's mother said that he was silent for a week. The first single phrases that the boy constantly repeated were: "*I will never go out again. I will sit at home. I will not go anywhere else.*"

The fear of explosions or bombings is also manifested in an inappropriate perception of sharp sounds. Ten children who witnessed the bombing and shelling when hearing a sharp sound (a plane, construction works nearby, a balloon explosion), fell onto the floor, covering their heads with hands or hiding under furniture. It is noteworthy that all the children, having realized that the panic was unjustified, felt guilty or ashamed, especially if other children who had not got frightened witnessed this, and excused themselves with the words "I was just scared".

The children's fear of their parents' death is verbalized in different ways. The children from Group 2 (12 people) in this context express fear for their father, who is at the frontline. The fear of losing the father is constant and is expressed by the following statements of 5–7-year-old children: "*Did dad call*?", "*Call my dad*", "*When will dad take us*?", "*I want to see dad*", "*And dad won't be killed*?". Children of 8-10 y.o.: "*Did dad call*?", "*Did you call dad*? *Did he answer*?", "*Call dad*", "*When will dad come back*?", "*I'm worried about my dad*". The children of this age understand and explain their fear of losing a close person: "*I am worried about this situation and I worry about those who are in Ukraine now. I am very worried about my grandmother and others*" (V., boy, 10 y.o.).

The children from Group 1, who witnessed the bombing and shelling, besides the fear for their relatives who remain in Ukraine, also express the fear for their own lives. Six children from Group 1 testified an obsessive fear of death: "*I'm afraid that they will kill us*" (D., boy, 8 y.o.), "*I'm afraid of being buried alive under rubble*" (M., boy, 9 y.o.). "*Now I'm afraid of silence. I feel anxious when there is silence, I think that there will be an explosion and we will die*" (M., girl, 10 y.o.).

All members of both experimental groups admitted that they often see bombings and shelling in their dreams.

While conducting the survey on the fear of losing parents, the authors identified a subgroup of respondents (7 persons) in Group 1 — the children who witnessed the death of family members or friends. It was noted that younger children (5-6 years old, 3 persons), when talking about the experience, use exclamations denoting an explosion, accompanying these onomatopoeias with gestures and directly nominating the fact of death: "*Grandma was killed*" (D., girl, 5 y.o.), "*My two dogs and grandpa died*" (I., boy, 6 y.o.), "*My uncle was killed*. And bombs are flying" (S., girl, 5 y.o.). The study revealed two cases when children, talking about the loss of their mother

(T., girl, 6 y.o.) and father (D., boy, 5 y.o.), used the phrase *"It was a long time ago"*, as if convincing themselves of a new stage of life.

Older children (7-8 years old) report the death of a relative more extensively, specifying the circumstances, "Mum was sleeping and sleeping, and then dad said she was dead" (V., boy, 7 y.o.), "Grandma ran to me, grabbed me and shouted 'Mum was killed!'" Children of this age as well as older children (8-10 years old) avoid nominating death directly. As in the two previous examples, a ten-year-old boy from Mariupol, when talking about his mother's death, which he witnessed, replaces the word "died" with the word "is not here": "They asked me where my mother is. And I said "Mum is not here anymore!". It is noteworthy that while telling this, the boy smiles, the smile intensifies at the words "is not here anymore!", after which the child bursts into tears. The stupor of two children (boys 9 and 10 years old) was noted during the story about the death of the father: the child stops speaking, the face acquires a mask-like appearance, the gaze is fixated. Five children from this subgroup periodically asked questions: "What happens after death?", "Why do people die?", "Where do dead people go?".

Eighty percent of respondents from Group 1 retell the experienced event many times with all the details. These manifestations can be classified as recurrent flashback memories. Such retelling sometimes takes the form of an obsessive state. For example, the six-year-old girl M. from Mariupol repeatedly recounted being hit in the leg by a shrapnel, "And then I look - the leg is covered in blood". Another girl (K., 9 y.o.) witnessed the death of her older sister. The family initially reacted with confusion, despair and depression, but tried not to discuss the situation with their youngest daughter. Now the girl draws many, as she says, "greeting cards" with flowers and butterflies, and explains that she draws "for my sister" because she "sees these pictures". The parents note the non-standard nature of the sister's nomination. Before the tragic incident, K., when talking about her sister, called her only by her name and in its various interpretations and never "my sister". According to the mother, the child thus distances herself from acute emotions, making an effort not to return to the currently painful memories of a happy life before the war, using (even in conversations with her parents) the neutral word "sister" and not family variations of the name, which are intimate for a child. The research revealed two more similar cases of dealing with the stress with the help of drawing. A girl (D., 6 y.o.), whose mother was killed during the shelling, periodically during the day draws hearts with "mother" written inside them. Another girl from the Kyiv region (Y. 7 y.o.), who lost her father in the shelling of cars, draws her family every day and writes "dad" under her father's portrait.

When retelling the experienced events, the children give many details, describe their emotions, and often include verbal reactions of adults to this event. For example, a girl (S., 6 y.s o.), who was protected from a shell by a neighbor who dragged her to a shelter, repeats the "adult" phrase "*May the Lord bless him and his family*" when recounting this event. A girl (T., 5 y.o.): "*Rockets were flying. It was*

scary. Everyone was crying. And we went to France. <u>What can you do? We have</u> <u>nothing to do at home</u>". Girl (M., 10 y.o.): "I think that Putin <u>will bring us calamity</u>, <u>will bring much damage to our people</u>".

Emphatic use of the first-person possessive pronoun *my* is characteristic for the respondents of both groups, which is not typical of the Ukrainian language: "When I left <u>my</u> Ukraine, I got confused" (D. boy, 10 y.o.), "Why are they bombing <u>my</u> house?" (V., girl, 4 y.o.), "When will we return to <u>my</u> city?" (V. boy, 7 years old), "I want to return to <u>my</u> Kyiv" (D. boy, 8 y.o.). It can be assumed that in this way children unconsciously protest against being abroad because the cliché "at home/not at home" is present in the minds of both adults and children.

The authors recorded two cases of derealization in Group 1children of five and eight years old. A girl (V., 6 y.o.) imagined herself in the world of her favorite cartoon. When her mother tried to distract her from her fantasies, the child protested and became hysterical (*I want to live with Peppa Pig!*). The second case is a ten-year-old boy's feelings that he is living outside reality and acts "*like a robot*".

Disruption of social contacts is expressed by impoverishment of speech (oneword answers, reduction of speech to short questions), cognitive apathy and loss of interest in anything as well as complete refusal to communicate with peers, volunteers, psychologists (five cases: one child aged 7, one child aged 8 and three children aged 10).

War can be a direct causal agent of aggression that occurs in both adults and children who have experienced its devastating consequences (Qouta et al., 2008). A comparative analysis of the answers to the question about verbal aggression in the Buss-Durkee questionnaire shows the following results (Table 5):

Level	Group 1	Group 2	Control group
High	6 (30%)	4 (20%)	1 (5%)
Average	8 (40%)	4 (20%)	3 (15%)
Low	6 (30%)	12 (60%)	16 (80%)

Table 5Verbal Aggression Test Results

The data obtained as a result of using the Buss-Durkee questionnaire indicate that the degree of aggression and hostility in children of the experimental groups is significantly higher than in the children of the control group.

High level of aggression is more typical for respondents aged 5-7 years, who express it by hysterical demands, overly emotional reactions to external stimuli, moodiness, and a categorical refusal to comply with adults' requests or instructions. However, this type of aggression is characteristic of children in any stressful situation, not necessarily caused by war. The events experienced in Ukraine in children of this age have affected their games rather than their nonverbal behavior.

The children play air raid alerts, imitate sirens, and they can express their aggression while playing with toys. The authors witnessed boys playing with shooting cars and bombing, drawing and crossing out tanks, planes or soldiers of the Russian army. All these actions directed at the enemies give the child a sense of control and help to overcome fear and powerlessness.

The average level of verbal aggression of the children in the experimental groups is expressed in fantasies of revenge on the enemy. It should be noted that such speech behavior is very typical of boys aged 6-8 years. Children can voice their fantasies to adults, but they are especially willing to share plans of "revenge" with their peers. The authors noted that in conversations about the war the children aged 5-7 years use the name "*Putin*" in most cases metonymically to refer to the image of the enemy in the Russo-Ukrainian war, while older children use the word "Russians" (and stylistic synonyms: "*Rusnya*", "*Moskals*", "*Katsaps*") and "*orcs*".

Eight- and ten-year-old children consciously verbalize their hostility and hatred towards Russia: "When I watch the news and see the Russian army attacking innocent people, I get angry" (V., boy, 10 y.o.); "When my mother cries, I get quite angry at Putin" (P., boy, 9 y.o.), "Why they want to kill us, I do not understand. It scares me and makes me angry" (I., girl, 8 y.o.). When analyzing the level of aggression, we did not register any qualitative differences in verbal aggression between the respondents of Group 1 and Group 2. The parents of Group 1 children, who witnessed the hostilities, emphasized that during the bombardment and shelling, the children who had been prone to some aggression before the war had been very quiet, mostly kept silent and followed all instructions of adults.

Conclusions

The analysis of the impact of the war on children's speech shows that children who witnessed the hostilities of the Russian-Ukrainian war in 2022 display the symptoms of post-traumatic stress and signs of a high level of situational and personal anxiety combined with fears associated with the extreme situations they experienced.

The speech of refugee children from the military conflict zone contains markers of speech disorders caused by stress. The analysis also revealed specific expressions used by the children to talk about their psychological state and the experienced events.

The speech disorders identified during the study are:

- 1) difficulties in formulating thoughts;
- 2) increase in the number and duration of pauses;
- 3) searching for words and replacing them with gestures;
- 4) semantically irrelevant repetitions;

5) impoverished speech (one-word answers, reduction of speech to short questions, lexical narrowing);

6) stupor during speech;

7) cases of complete or temporary mutism.

The authors analyzed the verbalization of the identified indicators of psychological problems by the following points: stress (fear, phobias, anxiety), hysteria, derealization, obsessions, difficulties in social contacts. We refer to specific forms of verbalization of psychological state:

1) iterative nature of speech: obsessive questions about personal threat in the war, questions about parents at the frontline and relatives who remained in Ukraine, repetition of the narrative about the experienced events;

2) incorporation of previously heard verbal reactions of adults into the story about the experienced event;

3) excessive details in the story about the event;

4) shame and justification for a panic attack;

5) emphatic use of the first-person possessive pronoun in the context of conversations about the homeland (*my Ukraine*, *my Kyiv*, *my home*), which implies rejection of being away from home;

6) peculiarities of verbalization of the experienced death of loved ones:

- children aged 5-6 accompany their speech with gestures and exclamations to indicate the explosion and directly nominate the fact of death;

- children aged 7-10 report about the death of a loved one in detail, indicating the circumstances and avoiding any direct nomination of death, replacing the words *"died"*, *"was killed"* with *"is not here"*.

The experienced events cause high and medium level of aggression in young respondents, which is verbally expressed in fantasies of revenge on the enemy.

Further research of children's speech in the context of war can provide the material for development and testing of psychological help and pedagogical guidance employed to children suffering from post-traumatic stress disorder caused by hostilities. The study lays the foundation necessary to elaborate practical recommendations for teachers, psychologists, social pedagogues, parents aimed at improving the content and methods of psychological and pedagogical support of children with post-traumatic stress disorder.

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