International Journal of New Findings in Health and Educational Sciences (IJHES)
ISSN 2980-0641
DOI : 10.63053/ijhes.72

The Effect of Painting-Based Art Therapy on Teacher-Child Relationship, Aggression And Social Interactions of Children With Autism Spectrum Disorder

Nasim Nozohour (Choghoosh)[1]

1.Master of General Psychology, Azad University of North Tehran, Tehran, Iran

ARTICLE INFO

Keywords:
Painting-Based Art Therapy, Teacher-Child Relationship, Aggression, Social Interactions, Autism Disorder

ABSTRACT

The purpose of this applied research was to determine the effectiveness of painting-based art therapy on the teacher-child relationship, aggression and social interactions of children with mild autism spectrum disorder. The current research was conducted using a semi-experimental method of pre-test-post-test type with a control group. The statistical population of the research included all the children with autism disorder of the second April Autism Center in Tehran, 30 of whom were selected by the available sampling method and were randomly assigned to two experimental and control groups. To collect information, Nielson's Aggression Questionnaire (2000), Pianta's Teacher-Child Interaction Questionnaire (1992), and the Autism Scale Questionnaire in the Social Interactions Subscale (1993) were used, and Martin's art therapy educational package (2009) was used for therapeutic intervention. became Collected data was analyzed using SPSS-27 software and analysis of variance test. The findings showed that art therapy based on painting has a significant effect on the teacher-child relationship, aggression and social interactions of children with autism spectrum disorder ($p<0.5$). The child-teacher has reduced children's aggression.

1. Introduction

Autism spectrum disorder is one of the types of neurodevelopmental disorders in children. Defects in interaction and communication with others, repetitive patterns of behaviour, activities and interests are the main features of this disorder. This disorder occurs in the child in early childhood and disrupts the daily functioning of the child (American Psychiatric Association, 2013). In the past few decades, the prevalence of this disorder has increased, so that the prevalence of this disorder in children is one out of every 68 children (Aghababai and Tagwai, 2018). The number of symptoms and severity of symptoms in the disorder are diverse and different, people with autism spectrum disorder have different intellectual abilities. For this reason, their intelligence ranges from high to low intelligence. Therefore, symptoms such as interaction and communication and communication problems, delay in language development, and stereotyped and repetitive behaviours are also different in people with varying levels of intelligence (Cofugno, 2009). These children cannot understand abstract concepts and have problems with interpersonal relationships and empathy (Skopler and Mesibo, 2013).

These children have problems due to communication limitations, as well as in social and communication interactions, as well as problems in taking a point of view, in starting, as well as continuing and maintaining relationships with other children and adults (Byers, Nicole and Voyer, 2013). These children are also unable to make basic connections with others and cannot use the capacity of non-verbal communication. Children with autism spectrum disorder face many challenges when communicating with others. Challenges such as fear or misunderstanding, confusion, in the emergence of feelings and emotions that they face (Smith, 2009).

Aggression can be seen as a behaviour that can be seen both in humans and in many other animals (Lehak and Asadi, 2019). Children with autism spectrum disorder become aggressive due to their inability to control their behaviour and movements, which causes harm to others and is also a reason for rejection by the people around them and social environments (Megan, 2016). The most common type of aggression is instrumental aggression, followed by hostile aggression, which is caused by feelings of anger.

Students with autism spectrum disorder spend most of their time at school in the classroom, and for this reason, they spend most of their time communicating and interacting with the teacher and other classmates. The type of communication and interaction of the teacher with the students with autism spectrum disorder can be seen in the behaviour of both parties. The class is like a social environment that forms many of the student's personality traits. Therefore, the teacher and the style that interacts with the student must affect the student's behaviour and mood. Teachers use different interactive and communication strategies while teaching and in the classroom. Therefore, the way the child (student with autism spectrum disorder) relates to the coach or teacher is important, and because of the problems that these children have, teachers should have a suitable behaviour and style with them (Blacher et al., 2014).

One of the relatively new treatment methods is art therapy based on painting, which is used in the treatment of children's problems. The existential philosophy of this method is that the creative process used in art can help a person to solve their problems and conflicts (Lijtern et al., 2016). This method reduces anger and anxiety, which causes non-verbal negative emotions or aggression (Hoffman et al., 2016). Information such as mental abilities, personality and emotional characteristics, even tensions, pressures, failures, and inner desires can be recognized through children's drawings (Khadar, Babapour and Sabouri Moghadam, 2013). Art therapy based on Children's painting therapy expresses thoughts and feelings freely and without censorship suppression and threats (Forsman et al., 2016). Numerous

studies show that art can solve behavioural problems in the long term. Drawing helps children reduce their negative emotions and behavioural problems and increase their self-confidence (Lee and Lee, 2017).

In the review of the research background, only one research was found that addressed the effectiveness of painting-based art therapy on children with autism spectrum disorders on social interactions. Considering the importance of taking care of these children and the above-mentioned materials and the importance of addressing the situation of children with autism spectrum disorder, the main question of the research is whether art therapy based on painting is effective on the teacher-child relationship, aggression and social interactions of children with autism spectrum disorder. is it more To achieve the goals of the research, the following hypotheses have been proposed:

The main hypothesis

Art therapy based on painting is effective in teacher-child relationships, aggression and social interactions of children with autism spectrum disorder.

Sub-hypotheses

Art therapy based on drawing is effective in the teacher-child relationship of children with autism spectrum disorder.

Art therapy based on painting is effective in the aggression of children with autism spectrum disorder.

Art therapy based on drawing is effective in the social interactions of children with autism spectrum disorder.

Research Method

The current research was conducted in a semi-experimental way with a pre-test-post-test design. The statistical population included all children with a mild autism spectrum disorder in Tehran's Second April Autism Center, after the necessary coordination with the Second April Autism Center, 30 people were selected by the available sampling method and randomly divided into two experimental and control groups. and using the art package in Manny Martin (2006), relevant trainings were given to the participants in each session. In addition, before the beginning of the sessions and after the end of the therapeutic method, child-teacher relationship, aggression, and social interaction questionnaires were provided to the participants to evaluate the effectiveness of the research therapeutic method, which is described below. Data analysis using SPSS-27 software, two types of descriptive statistics including mean, standard deviation, frequency and graph, and in the inferential part, analysis of variance test was used to test the hypothesis.

Questionnaire to measure the scope of autism: This questionnaire was compiled in 1993 by Ehlers and Gilberg and the purpose of using this tool in this study is to measure the amount of social interactions. This tool contains 42 items that are completed by parents. The scoring of this questionnaire is set in the Likert scale. This questionnaire was standardized by Kase Chi at the University of Welfare Sciences in 2017. The questionnaire measuring the range of autism in both groups of parents and teachers for children with autism spectrum disorder has significant validity. The validity of the questionnaire measuring the range of autism in the original version was 0.94. This questionnaire has three subscales: behavioural problems, unusual symbolic games, children's problems in the field of language and speech delay, and children's problems in the field of social interactions. In this research, we will only use the social interactions subscale.

Nilson Aggression Questionnaire (2000): This questionnaire has 43 questions and its purpose is to measure the level of aggression in preschool children from different dimensions (verbal-aggressive aggression, physical-aggressive aggression, relational aggression and impulsive anger). Its scoring method is based on a five-point Likert scale. Validity and reliability In the study of V. Ahdi et al.

(2008), the validity and reliability of this questionnaire have been tested. The factor analysis method was used to check the construct validity. Factor analysis of this scale with the help of decomposition into main components and after Varimax rotation provided four factors of verbal-aggressive aggression, physical-aggressive aggression, relational aggression and impulsive anger, which represent the construct validity of the scale. Cronbach's alpha method was used to check the reliability of this questionnaire and its value for the whole questionnaire was equal to 0.98, which indicates good reliability of the questionnaire.

Teacher-Child Interaction Scale: This questionnaire was created by Pianta for the first time in 1992 and contains 15 items that measure teachers' perceptions of their relationship with students. This scale has dimensions of dependence, conflict and closeness. The grading of the answers to this questionnaire is based on a five-point Likert scale from 1=definitely applies to 5=definitely does not apply. The reliability of the dimensions of conflict, closeness, and dependence in the research of Sepah Mansour, Barati and Behzadi (2015) was reported as 0.92, 0.86 and 0.64, respectively.

Art therapy protocol based on painting: First session: assessment of children and familiarization with the tool of therapeutic painting and communication with the child with autism spectrum. The second session: underlining. The third session: Introduction to colours and painting with contrasting colours. The fourth session: Concept of space and vague images. The fifth session: Teaching and recognizing emotions through drawing pictures. Social (socialization and relationships).

Art therapy protocol based on painting: Art therapy protocol based on painting using Martin's art therapy educational package was carried out in children with autism spectrum disorder, which is shown in Table No. 1.

Table 1- Art therapy protocol based on painting using Martin's art therapy educational package in children with autism spectrum disorder

content	meetings
Evaluation of children and familiarization with therapeutic drawing tools and communication with children with autism spectrum. According to the five stages of development of drawing in a child, i.e. the stages (drawing a line, drawing simple geometric shapes, drawing two geometric shapes side by side combining geometric shapes and drawing pictures), the child is evaluated first. If the child is in the first stage of the development of painting The steps of doing the work are as follows:	**first**
scribble In this session, the child is asked to draw jumbled lines without any restrictions and at first he uses a pencil. In the next step, the child is asked to start drawing with different coloured pencils. In the third stage: the child is asked and taught to make simple geometric shapes such as circles, triangles, rectangles, squares, and ovals by purposefully drawing lines together.	**second**
Familiarity with colours and painting with contrasting colours in this session, depending on which stage of the cognitive development of painting the child is in, painting with him starts from the same stage and contrasting colours two by two and combining the main colours. And sub or warm and cold for colouring shapes and images, we use a combination of contrasting colours such as red and green-yellow and violet, blue and orange.	**third**
The concept of space and ambiguous images Pictures or photos depicting vague actions or stories are suitable tools for helping with story details and abstract thinking. Ambiguous designs such as illegible lines that can be drawn together are useful to help visualize an image such as finding a shape in a cloud.	**fourth**
Teaching and recognizing emotions through drawing pictures The first step is to recognize facial expressions from photos The second step is to recognize emotions from graphic forms	**fifth**

Face painting and self-awareness Pictures by self-drawing is a good way for self-awareness or practice to establish interaction by processing people's images by drawing real-life people, as well as working on the relationships of self-perception against the perception of others and personal privacy.	**sixth**
spray painting To interpret the drawings of children with autism spectrum, the drawing must be free and in no way should consciousness be imposed on them or forced to copy, because the depth of their feelings and emotions can be understood from free drawings.	**seventh**
Drawing with social concepts (socialization and relationships) including joint tasks of working with each other with peers can be structured to help practice social skills. Designs such as family paintings and pictures can be used to depict relationships. He also increased the use of social stories with pictures, including birthday parties, and giving gifts...) to help understand the social situations of people with autism.	**eighth**

Research findings

Descriptive findings

In this part of the research findings, the average and standard deviation of the scores of the subjects by groups, before and after the training, are presented.

.

Table 1. Descriptive statistics of aggression questionnaire variables

Control				Test				
Post-test		Pre-test		Post-test		pre-test		Variable
standard deviation	Average	standard deviation	Average	standard deviation	Average	standard deviation	Average	
3/770	40/27	4/148	40/27	3/720	36/47	3/668	41/20	failure
3/701	33/87	3/761	34	3/731	28/73	3/979	33/60	Physical aggression
3/606	31	3/980	32/47	2/093	26/67	3/063	35/33	Peer relationships
3/441	33/13	3/335	33/47	3/113	27/60	3/642	31/53	Relations with authorities
9/825	136/33	7/019	137/53	6/707	116/87	6/966	141/67	aggression

As it is clear from the data in the table, in the pre-test the average scores of failure, physical aggression, relationships with peers and relationships with authority figures were 41/20, 33/60, 35/33 and 31/53 respectively in the pre-test of the experimental group and after The average test scores are 36.47, 28.73, 26.67 and 27.60 respectively. In the pre-test of the control group, the average scores of failure, physical aggression, relationships with peers, and relationships with authority figures were 40.27, 34, 32.47, and 33.47, respectively, and in the post-test, the average scores were 40.27, 33.87, respectively. , 31 and 33/13. Also, the average aggression score in the pre-test of the experimental group is equal to 141.67 and in the post-test is equal to 116.87. The average aggression score in the pre-test of the control group is equal to 137.53 and in the post-test is equal to 135.33.

Table 2- Descriptive statistics values of variables of teacher-child relationship questionnaire

Control				Test				
Post-test		pre-test		Post-test		pre-test		Variable
standard deviation	Average	standard deviation	Average	standard deviation	Average	standard deviation	Average	
1/944	17/27	1/552	15/53	2/610	22/33	1/710	16/27	Proximity
2/134	23/47	1/807	23/87	2/549	20/27	2/232	22/13	the clash

As it is clear from the data in the table, in the pre-test, the average scores of closeness and involvement are 16.27 and 22.13, respectively, and in the post-test, the average scores are 22.33 and 20.27, respectively. In the pre-test of the control group, the average scores of closeness and involvement are 15.53 and 23.87, respectively, and in the post-test, the average scores are 17.27 and 23.47, respectively.

Table 3-Descriptive statistics values of social interactions questionnaire index

Control				Test				Indicator
Post-test		pre-test		Post-test		pre-test		
standard deviation	Average	standard deviation	Average	standard deviation	Average	standard deviation	Average	
2/757	46/80	3/066	47/40	3/011	41/07	2/933	45/80	Social interactions

As it is clear from the data in the table, the average score of social interactions in the pre-test of the experimental group is equal to 45.80 and in the post-test, it is equal to 41.07. The average scores of social interactions in the pre-test of the control group are equal to 47.40 and in the post-test is equal to 46.80.

Checking the normality of the data

Table 4 - Kolmogorov-Smirnov test, research indicators

Significance level	Test statistics	Kurtosis error	kurtosis	skew error	flection	Indicator
0/200	0/126	0/833	-0/455	0/427	0/466	aggression
0/118	0/143	0/833	-0/208	0/427	0/364	Proximity
0/200	0/091	0/833	-0/537	0/427	-0/140	the clash
0/200	0/108	0/833	-1/116	0/427	-0/008	Social interactions

As it is clear from the data in Table 5, the significance level of the Kolmogorov-Smirnov test for aggression (0.200), closeness (0.118), conflict (0.200) and social interactions (0.200) is greater than the value of 05. / is 0. As a result, they have a normal distribution.

Examining research hypotheses

First hypothesis: Art therapy based on painting is effective in the teacher-child relationship of children with an autism spectrum disorder.

Table 5. Results of multivariate covariance analysis

Eta squared	Significance level	Error degree of freedom	The degree of freedom of the hypothesis	The value of the F statistic	value	title of exam
0/711	0/001	25	2	30/717	0/711	Pillai effect test
0/711	0/001	25	2	30/717	0/289	Wilks's lambda test
0/711	0/001	25	2	30/717	2/457	Hotelling effect test
0/711	0/001	25	2	30/717	2/457	The largest zinc root

As it is clear from the table, the results of the multivariate covariance analysis indicate that the

multivariate F value for the effectiveness of painting-based art therapy is statistically significant in all tests at the P<0.05 level. is Therefore, it can be said that there is a significant difference between the two experimental and control groups in at least one of the components of the teacher-child relationship. The eta square (the square of the correlation coefficient between the dependent variables and group membership) shows that the difference between the two groups regarding the dependent variables is significant in total and the amount of this difference is 0.711%. That is, 71.1% of the variance related to the difference between the two groups is due to the effect of art therapy based on painting.

Table 6- The results of one-variable analysis of variance to compare the variables of the teacher-child relationship between the two groups

Effect size	Significance level	The value of the F statistic	average of squares	Degrees of freedom	sum of squares	Component
0/499	0/001	25/936	138/202	1	138/202	Proximity
0/320	0/002	12/258	72/073	1	72/073	the clash

As it is clear from the results of the table, the significance level of the test is significant for the components of closeness (P < 0.05) and involvement (P < 0.05). Therefore, the assumption that the scores of these components are the same between the control and intervention groups is not accepted. According to the average scores in the table, it is clear that art therapy based on painting has improved these components.

Second hypothesis: Art therapy based on painting is effective on the aggression of children with autism spectrum disorder.

Table 7- Results of multivariate covariance analysis

Eta squared	Significance level	Error degree of freedom	The degree of freedom of the hypothesis	The value of the F statistic	Value	title of exam
0/866	0/001	23	3	49/389	0/866	Pillai effect test
0/866	0/001	23	3	49/389	0/134	Wilks's lambda test
0/866	0/001	23	3	49/389	6/442	Hotelling effect test
0/866	0/001	23	3	49/389	6/442	The largest zinc root

As it is clear from the table, the findings of the multivariate covariance analysis indicate that the multivariate F value for the effectiveness of painting-based art therapy is statistically significant in all tests at the P<0.05 level. is Therefore, it can be said that there is a significant difference between the two experimental and control groups in at least one of the components of aggression. The eta square (the square of the correlation coefficient between the dependent variables and group membership) shows that the difference between the two groups regarding the dependent variables is significant in total and the amount of this difference is 0.866%. That is, 86.6% of the variance related to the difference between the two groups is due to the effect of art therapy based on painting

Table 8- The results of one-variable analysis of variance to compare aggression variables between two groups

Effect size	Significance level	The value of the F statistic	average of squares	Degrees of freedom	sum of squares	Component
0/744	0/001	72/679	131/280	1	131/280	failure
0/703	0/001	59/182	141/149	1	141/149	Physical aggression
0/358	0/001	13/932	131/953	1	131/953	Relations with authorities

As it is clear from the results of the table, the significance level of the test is significant for the components of failure ($P < 0.05$), physical aggression ($P < 0.05$) and relationships with authority figures ($P < 0.05$). Therefore, the assumption that the scores of these components are the same between the control and intervention groups is not accepted. According to the average scores in Table 5, it is clear that art therapy based on painting has improved these components.

Third hypothesis: Art therapy based on painting is effective in social interactions of children with autism spectrum disorder.

Table 9. The results of univariate analysis of variance to compare social interactions between two groups

Effect size	Significance level	The value of the F statistic	average of squares	Degrees of freedom	sum of squares	Source of changes
0/042	0/286	1/186	2/311	1	2/311	Constant
0/774	0/001	92/725	180/713	1	180/713	pre-test
0/717	0/001	68/551	133/60	1	133/60	intervention
			1/949	27	52/621	error
				30	58384	Total

As it is clear from the results of the table, the significance level of the test for the intervention is significant ($P<0.05$). Therefore, the assumption of the same scores between the control and intervention groups is not accepted. Also, according to the effect size values, it is clear that 71.7% of the difference in grades is affected by art therapy intervention based on painting. According to the average scores in Table 4-4, it is clear that art therapy based on painting has improved the scores of social interactions.

Discussion

The results obtained from the research data in the main hypothesis showed that art therapy based on painting is effective in teacher-child relationships, aggression and social interactions of children with autism spectrum disorder. The results obtained from this research are consistent with the results of Forsman et al. (2016), Khadar, Babapour and Sabouri Moghadam (2013), Lee and Lee (2017) and Blacher et al. (2014). As stated, painting-based art therapy as one of the complementary treatment methods can positively affect the teacher-child relationship, aggression and social interactions of children with autism spectrum disorder. By creating a creative and free space, art therapy allows children to express themselves without pressure and stressful environments. This opportunity makes the relationship between the teacher and the child better and deeper. As stated in art therapy, educators often praise children and care about the effects of their drawings and creative works. This encouragement to children increases self-confidence and self-respect. Also, art and painting games can act as a way to reduce violence and aggressive behaviour in children with autism spectrum disorder.

This process is used as a constructive and soothing alternative for children's problems. Autism spectrum disorder is usually accompanied by anxiety and stress. By creating a calm and positive atmosphere, art therapy can help reduce anxiety and lead children to a state of calmness and concentration. In general, art activities such as painting and drawing can improve children's sensory skills. This improvement can help children with autism spectrum disorder to better receive and process sensory information.

The results obtained from the research data in the first hypothesis showed that art therapy based on painting is effective in the teacher-child relationship of children with autism spectrum disorder. The results obtained from this research are consistent with the results of Lijtern et al. (2016) and Hoffman et al. (2016). Children with autism spectrum disorder may have problems with verbal and non-verbal communication. Drawing is a non-verbal tool that allows children to express their feelings, thoughts and experiences without the need for words. Drawing and colouring can create a special sensory experience and strengthen the feeling of peace and satisfaction in children with autism. These experiences can help improve concentration and reduce children's anxiety and tension. Also, art therapy based on painting can strengthen children's social skills. This process may lead to improvements in abilities such as interacting with others, sharing feelings, and cooperation. On the other hand, children with autism spectrum disorder usually tend to be isolated and may have problems communicating with others. Painting can reduce this isolation and strengthen children's social connections. In general, painting-based art therapy can facilitate the improvement of the quality of life of children with autism spectrum disorders and be effective in their social interactions and communication abilities. But in all cases, the experience and type of children with autism may be different, so art therapy should be personalized and according to the needs and preferences of each child.

The results obtained from the research data in the second hypothesis showed that art therapy based on painting is effective in the aggression of children with autism spectrum disorder. The results obtained from this research are consistent with the results of Heli et al. (2020), Megan (2016) and Nik Khoi (1400). From the obtained results, it is argued that by drawing paintings in which opposite feelings such as love and hate, anger and peace are shown in the form of paintings, a person has a better and more accurate perception of himself and this issue of creating a feeling of inferiority as The agent of aggression prevents. Aggression may increase in some children with autism due to the stress and anxiety they experience in social settings. Art therapy based on painting can reduce these negative feelings and help children face a feeling of peace and satisfaction. Children with autism spectrum disorder may have problems expressing their feelings and thoughts. Painting as a non-verbal method can enable children to express their feelings and thoughts visually and non-verbally, which can help reduce children's stress and aggression. Also, drawing-based art therapy may create positive sensory experiences for children. These experiences can improve children's concentration and sensory abilities and create a feeling of joy and happiness. On the other hand, painting is a creative and attractive activity that may attract children's attention and focus their attention on a specific activity. This can help reduce children's aggression and keep them away from more inappropriate and aggressive activities.

The results obtained from the research data in the third hypothesis showed that art therapy based on painting is effective in the social interactions of children with autism spectrum disorder. The results of this research are consistent with the results of Lee and Lee (2017). From the results, it is argued that drawing as a non-verbal tool can encourage children to communicate and present their feelings without using words. This can introduce children to non-verbal ways such as gestures, symbols and signs that are useful for them in social communication. Drawing-based art therapy can strengthen children's communication skills. This process may produce improvements in abilities such as interacting with others, sharing feelings, and making positive social connections. Also, drawing-based art therapy enables children to participate in group activities that can provide effective social experiences for them.

This allows children to interact with others, find common ground and thrive in a social setting.
The current research also had some limitations, since this research was conducted among children with autism disorder in the Autism Center on April 2 in Tehran, so the results of the research cannot be generalized to other children. Therefore, it is suggested that the present research should be carried out in wider society and groups. Also, based on the results obtained, to better communicate with people on the autism spectrum, it is important to identify their needs and preferences. Each person may have specific preferences, so knowing these preferences helps to communicate more effectively.

References

1. Aghazadeh, S., and Taghavi, M. (2018). The effectiveness of mindfulness-based cognitive therapy training on the psychological well-being of mothers of autistic children and children's symptoms. Journal of Cognitive Psychology and Psychiatry. 6(6): 88-100

2. Lehak, A., Asadi, J. (2019). The effectiveness of mindfulness training on attention and aggression in children under twelve years old. Social Psychology Research, 10(40): 1-20

3. Nik Khoi Shahrashtani, S. (1400). Comparing the capacity of self-control and emotional self-regulation of aggressive and non-aggressive sixth grade elementary students in Bandar Anzali city. New Ideas of Psychologist Quarterly, 8(12): 1-14

4. Byers, S., Nichols, S., Voyer, S. (2013). Challenging stereotypes: Sexual functioning of single adults with high functioning autism spectrum disorder. J Autism Dev;43(11):2617-27.

5. Lee, E., Lee, K. (2015). Proposal of Jackson Pollock's Art Therapy Recommendation System for Depression. International Journal of Software Engineering and Its Applications.9(10):75-84.

6. Leijten, P., Melendez-Torres, J, Knerr, W., Gardner, F. (2016).Transported versus homegrown parenting interventions for reducing disruptive child behaviour: A multilevel meta-regression study. Journal of the American Academy of Child & Adolescent Psychiatry;55(7):610-7.
7. Chien, T. W., Lin, Y. L., Chen, Y. J., Wei, H. T., & Ying, J. C. (2020). Association between maternal infection during pregnancy and autism spectrum disorders: A systematic review and meta-analysis. Molecular Autism, 11(1), 1-13. doi:10.1186/s13229-020-00351-3
8. De Filippis, B., & Vismara, L. (2020). The role of environmental factors in the development of autism spectrum disorders. Advances in Experimental Medicine and Biology, 1193, 41-63. doi:10.1007/978-981-15-0602-4_3
9. Douglas, K. S., Hart, S. D., & Webster, C. D. (2022). Forensic assessment of violence risk: A guide for risk assessment and risk management. John Wiley & Sons.
10. Deters, F. G., & Mehl, M. R. (2021). Social interaction in the digital age: Compensatory versus intensification hypotheses. Current Directions in Psychological Science, 30(1), 82-87. doi:10.1177/0963721420966361
11. Megan, M., Dwight, M., Kirsten, O., Christopher, J. (2016). Executive function and self-regulation mediate dispositional mindfulness and well-being. Personality and Individual Differences, 93(17), 97 - 103.