Revista Românească pentru Educație Multidimensională
ISSN: 2066-7329 | e-ISSN: 2067-9270
Covered in: Web of Science (WOS); EBSCO; ERIH+; Google Scholar; Index Copernicus; Ideas RePeC; Econpapers; Socionet; CEEOL; Ulrich ProQuest; Cabell, Journalseek; Scipio; Philpapers; SHERPA/RoMEO repositories; KVK; WorldCat; CrossRef; CrossCheck

2023, Volume 15, Issue 1, pages: 606-621 | https://doi.org/10.18662/rrem/15.1/714
Submitted: January 17th, 2023 | *Accepted for publication:* January 23rd, 2023

Art Therapy and Social Emotional Development in Students with Special Educational Needs: Effects on Anxiety, Empathy, and Prosocial Behaviour

Mariana LAVRIC[1],
Camelia SOPONARU[2]

[1] Special Education Teacher, Children's Balneary Climatic Sanatorium School of Buşteni, I. Kalinderu High School, Buşteni, Romania, mariana_lificiu@yahoo.com, https://orcid.org/0000-0001-8724-8815

[2] Associate Professor, Department of Psychology, Faculty of Psychology and Education Sciences, Al. I. Cuza University, Iaşi, Romania, camelia.soponaru@pshi.uaic.ro, https://orcid.org/0000-0001-5195-3109

Abstract: Although our research started before the pandemic, it seems that focusing on the social emotional development of our students has become a top priority, considering that, globally, the rates of anxiety among children and teenagers are, in the actual context of the pandemic and war, skyrocketing. One valuable way to promoting positive social emotional development is to implement in schools research-based programs that support students in strengthening their social and emotional competencies. Art therapy is one of the most suitable ways to serve this purpose, for it goes beyond words and gives the students the opportunity to deeper experience and process their emotions. This research used a structured group art therapy program to reduce anxiety and improve empathy and prosocial behaviour in 20 special educational needs students with neuro-psycho-motor deficiencies, aged between 8 and 11 years, who were randomly and equally assigned either to an experimental or a control group. The intervention was performed once weekly for ten weeks. Anxiety, empathy and prosocial behaviour have been measured using specific questionnaires filled out by the students' caregivers at the beginning and at the end of the program. After ten weeks, the art therapy group showed a significant decrease in anxiety and a significant increase in empathy and prosocial behaviour. These findings suggest that art therapy might be used in an educational context to lower anxiety and to support the positive development of social emotional competencies such as empathy and prosocial behaviour in special educational needs children with neuro-psycho-motor deficiencies.

Keywords: *art therapy; empathy; prosocial behaviour; social emotional development; special educational needs.*

How to cite: Lavric, M., & Soponaru, C. (2023). Art Therapy and Social Emotional Development in Students with Special Educational Needs: Effects on Anxiety, Empathy, and Prosocial Behaviour. *Revista Românească pentru Educație Multidimensională, 15*(1), 606-621. https://doi.org/10.18662/rrem/15.1/714

©2023 Published by LUMEN Publishing. This is an open access article under the CC BY-NC-ND license http://creativecommons.org/licenses/by-nc-nd/4.0/

1. Introduction

The study examines the effects of a structured art therapy program on the levels of anxiety, empathy and prosocial behaviour of special educational needs students with neuro-psycho-motor deficiencies, in an educational context. The study has been done in the fulfilment of the research work requirements for obtaining the secondary education level first degree teaching certificate, through the Teacher Training Department, Faculty of Psychology and Education Sciences, Al. I. Cuza University of Iaşi, Romania.

Besides its contribution mostly to the physical rehabilitation of neuro-psycho-motor disabled children, certain studies showed the positive effects of art therapy on various social emotional aspects of these children's life, in different contexts (Warmbrodt, 2020; Coleman & Cramer, 2015; Alyami, 2009; Rubin, 2005; Malchiodi, 2003), but none of them focused explicitly on the effects of art therapy on anxiety, empathy, and prosocial behaviour. The current study aimed mainly to explore to what extent art therapy can contribute to the positive social emotional development of special educational needs students with neuro-psycho-motor disabilities, by lowering certain disturbances of this process, such as anxiety, and strengthening their social emotional competencies such as empathy and prosocial behaviour. Therefore, we hypothesised that the participation of special educational needs students, with neuro-psycho-motor deficiencies, in a structured group art therapy program will decrease their level of anxiety, and will increase their level of empathy and prosocial behaviour. More specifically, we assumed that there is a significant difference between the initial levels of anxiety, empathy, and prosocial behaviour of the participants in the group art therapy program (pre-test) and the final levels of the same variables (post-test), in the experimental group, and there is no such significant difference in the control group of students who did not participate in the art therapy program.

2. Literature Review

In the last decades many studies have shown the impact of social emotional development on various areas of humans' life, such as: cognitive development and academic performance, emotional and relational health, physical health, moral dimension of life, social and professional adjustment, life and economic success and well-being, at the individual and societal level (Goleman, 2001, p.11). There are several intrapersonal and interpersonal

factors that either positively or negatively impact the social emotional development of children (Ștefan & Kállay, 2010). Statistics indicate that the mental health problems of children and young people (the most common being anxiety, depression, drug addiction, cyber addiction, violence, antisocial behaviours) have become a major problem at the societal level (Cefai et al., 2018). Students with special educational needs suffering from neuro-psycho-motor deficiencies are at greater risk of facing social emotional development deficits, for many reasons. Neuro-psycho-motor deficiencies and specific emotional disorders, such as anxiety in the athetotic child, psychomotor instability and the so-called affective disorders of psychomotor skills, are both caused by the anatomical and/or functional damage of the same brain substrate (Gherguț, 2013). Neuro-psycho-motor deficiencies also associate with limited access to educational, social, professional opportunities, resources or interaction with the environment (Hakeem, 2015), difficulties in the whole school learning process, language deficiencies, cognitive development, theory of mind and metacognition deficits, disruption of the whole family dynamics, stigma and social exclusion (Mic & Cârcu, 2016), and often even bullying, as neuro-psycho-motor deficiencies, especially physical ones, are very visible, which immensely adds to the burden of their own awareness of being different (Schreefel, 2015). Students with neuro-psycho-motor deficiencies are subjected to more or less severe medical interventions, that can be traumatic, isolation due to hospitalization for long periods of time in recovery facilities such as balneary climatic sanatoriums, often experiencing separation anxiety from family members (Verza, 1997). All these risk factors lead to various social emotional disturbances in students with neuro-psycho-motor deficiencies, such as distortion of the body-self formation- which significantly affects self-awareness, self-image, and self-esteem-, self-depreciation, anxiety, depression, stress, social and school adjustment difficulties, withdrawal, isolation, lack of social connection, anger, aggression, and other behavioural disorders, lack of satisfaction, the feeling of low self-efficacy, poor emotional regulation, etc. (Schreefel, 2015).

Among these, anxiety seems to be very common. Anxiety disorders are some of the most common forms of psychopathology in childhood. Studies suggest that approximately 8-12% of children meet the diagnostic criteria for some forms of anxiety disorder severe enough to interfere with an individual's daily functioning (Spence, 1998). More recent studies indicate an overall prevalence of 6.50% of anxiety disorders among young people (Piqueras et al., 2017). As some authors mention, the pandemic surely added to this load (Browning et al., 2021). Although there are no statistics showing

the exact percentage of students with neuro-psycho-motor deficiencies suffering of anxiety overall, considering the risk factors mentioned above, there is likely this percentage is even bigger than in the general population, at least in certain subcategories, as some authors mention, for instance, that more than half of the hemiplegic children experience at least one emotional disorder associated with low self-esteem, social isolation, group integration difficulties caused by stigma triggered by their disability (Mic & Cârcu, 2016).

On the other hand, analysing the last ten years' most significant worldwide research and initiatives in the field, certain authors show there is more and more evidence that social and emotional education and learning has a major impact on the positive development of social emotional competencies and, thus, on the reduction of the pressing problems facing today's society such as anxiety, depression, aggression, abuse, school dropout, drug consumption, crime, discrimination, etc. (Cefai et al., 2018).

Empathy and prosocial behaviour are social emotional competencies essential for positive development. The development of prosocial behaviour is important during early childhood because it is associated with the development of emotional competence throughout childhood (e.g. peer acceptance, empathy, self-confidence, emotional regulation), but also with academic performance, cognitive skills such as problem solving and moral reasoning, which in turn contribute to positive school adjustment (Knafo-Noam, 2016). During the first three years of life, children begin to develop the ability to experience the emotional or psychological state of another person. Empathy reflects the social nature of emotion, as it connects the emotional states of two or more people and, thus, one of the vital functions of empathy across the lifespan is to strengthen social connections. Research on empathy has shown a correlation between empathy and prosocial behaviour. Prosocial behaviours such as helping, sharing with others, soothing, comforting, showing concern for others, illustrate the development of empathy (Eisenberg & Fabes, 1990).

Empathy and prosocial behaviour have been, generally, negatively correlated with negative emotionality (e.g. anger, fear, sadness), including anxiety. However, certain studies regarding the relationship between negative emotionality and prosocial behaviour indicate that it is much more complex, being influenced by moderating factors (Eisenberg et al., 1996). In this context, contrary to the general opinion that those children with well-developed social emotional competencies, such as empathy and prosocial behaviour, are less vulnerable to risk factors that impact social emotional development and show fewer disturbances of this process, such as anxiety, it is worth mentioning the idea emphasized by some researchers that either

externalized (e.g. anger) or internalized (e.g. anxiety) behavioural problems can also manifest in children who demonstrate social emotional competencies and, thus, the presence of behavioural problems does not exclude the presence of social emotional competencies, and the absence of behavioural problems does not necessarily imply the presence of social emotional competencies (Halle & Darling-Churchill, 2016). Therefore, the relationship between empathy, prosocial behaviour and, respectively, anxiety has to be evaluated as such.

Among several ways that help children lower their anxiety and positively develop social emotional competencies such as empathy and prosocial behaviour, art therapy is very suitable for many reasons. Art has always been the realm of emotional expression and, although officially recognized only after second world war, its therapeutic value was known and used even from ancient times. As highlighted by several authors and professional associations, one of the central goals of art therapy is to help people improve many social emotional aspects of their life such as: to reduce anxiety and depression levels, to improve relationships, to work through and manage conflicts, to recover and grow from traumatic experiences, to develop a sense of one's own identity, to regulate one's emotions, to increase one's capacity for self-reflection and self-awareness, (European Federation of Art Therapy [EFAT], 2018), to increase self-esteem, to deal with losses, to reduce stress and develop social interaction (Malchiodi, 2003).

There is solid empirical evidence that art therapy helps people of all ages and different backgrounds to improve various social emotional aspects of their life such as psychological and emotional well-being (Sarid & Huss, 2010), social connection and creativity (Van Lith et al., 2009), etc. Among these studies, few of them regard the impact of art therapy explicitly on empathy and prosocial behaviour. Nevertheless, the existing research shows that the use of art therapy, sometimes combined with other types of therapy or interventions, in different settings, increases empathy in various populations such as regular elementary students participating in a community project (Haley, 2018) or teenagers treated for clinical depression in a specialised clinic (Franklin, 2010), etc. Outside the field of mental health, where art therapy was initially used and paved the way for its recognition as a profession, the creative arts have been used, under the banner of "arts for the community", since the 60s, to achieve social goals with various vulnerable populations from schools, prisons, hospitals, etc. (Sivapalan, 2015). However, research on the use of artistic expression for the purpose of developing prosocial behaviour is scarce. A recent review of numerous studies looks at the extent to which individuals' engagement in art

making is associated with prosocial traits and behaviours and can predict subjects' tendency to be prosocial seven years later and inverse (Kou et al., 2020). Other studies showed that the use of art therapy in various settings can improve prosocial behaviour such as in regular elementary students, as well as in students with emotional and behavioural problems (McDonald et al., 2019), in young offenders (Kõiv et al., 2019), etc.

Art therapy is effective in reducing anxiety in very diverse categories of people, such as children, adults, the elderly, people with terminal illnesses, people with various deficiencies or who have suffered trauma (Tauber, 2018). Analysing over five hundred studies regarding the effects of art therapy on anxiety, Abbing et al. (2018) identified sufficiently significant evidence that art therapy is effective in reducing anxiety in some investigated populations such as students and prisoners.

For children with special educational needs who suffer from various deficiencies and whose verbal language skills are often impaired, art therapy is even more appropriate to support their social emotional development because art provides the child with an alternative, more holistic, analogical, metaphoric means of communication and expression, that goes far deeper than the words, speaks more than any other language and allow them to channel their emotions' dynamics (Preda, 2004, p.72). Although art therapy does not entirely restore disabled children's health, it allows them to gain control of their action, to benefit hands-on experience and "gives the child a way to safely let loose, to regress, and smear and pound and release bodily tension, or to let loose and express symbolically or verbally scary feelings" (Rubin, 2005, p.283). Therefore, art therapy helps them improve various social emotional aspects of their life, offering them the opportunity to explore and work on their emotional difficulties, to express their creative self, a process that brings a lot of existential meaning to their lives and helps them become able to cope with the academic difficulties they face on their own (Freilich & Shechtman, 2010). Research shows that, for instance, art therapy is effective in: reducing the level of aggression and increasing the level of self-esteem in aggressive children (Alavinezhad et al., 2014), improving social behaviour and flexibility (Schweizer et al., 2014), expressing and discharging their negative emotional experiences such as anxiety, intense sadness, depression, and developing coping strategies in children with autism (Moustafa, 2015), etc.

The use of art therapy in working with children with neuro-psycho-motor deficiencies is mentioned by well-known authors such as Malchiodi (2003) and Rubin (2005) who refer both to practitioners who used art therapy in an educational context and to art therapists who worked in

various rehabilitation institutions with children with various impairments, including children with neurological impairments, physical impairments, and neuro-psycho-motor impairments, interested not only in the impact of these impairments on the self-concept formation in these children, but also on how artistic expression can contribute to their development in different aspects, including the social emotional one. More recent studies highlight art therapy's efficacy in the psychological rehabilitation of children with neuro-psycho-motor deficiencies, with clear benefits and improvement of many social emotional aspects of their life such as: self-esteem and social activity in children with cerebral palsy (Warmbrodt, 2020), self- worth and efficacy in physically disabled children (Coleman & Cramer, 2015), psychological, social and personal life quality in tetraplegic and multiple sclerosis physical disabled children (Alyami, 2009), amazing mobilisation of resources to function as independent and creative as possible in children with severe orthopaedic disabilities and severe athetosis or spasticity, and cooperating skills in children with hyperactivity due to neurological impairment (Rubin, 2005), etc.

Nevertheless, the research regarding the use of art therapy in the psychological rehabilitation of students with neuro-psycho-motor deficiencies is very scarce, as art therapy is mostly viewed as a form of therapy employed for their physical rehabilitation. In our country, very few art therapy studies and projects led by art therapists and other practitioners, focus particularly on the social emotional rehabilitation and development of children with neuro-psycho-motor deficiencies, although positive effects on emotion regulation and behaviour are mentioned by some authors such as Ciobanu (2017). Therefore, we found necessary to explore, specifically in an educational context, the effects of art therapy explicitly on key social emotional aspects that play an essential role in the positive development of the students with neuro-psycho-motor deficiencies, such as prosocial behaviour, empathy, and anxiety.

2. Methodology

2.1. Participants

The study is based on a structured group art therapy program used to reduce anxiety and improve empathy and prosocial behaviour in 20 special educational needs students with neuro-psychomotor disabilities, 5 girls and 15 boys, aged between 8 and 11 years (1st to 4th grade) who attended the elementary school of the Children's Balneary Climatic Sanatorium, in Buşteni, Romania, during their hospitalization. Most of their

diagnoses fell into the category of physical/locomotor deficiencies, or locomotor system conditions, such as deformations of the limbs and spine due to various causes (scoliosis, kyphosis, kyphoscoliosis, etc.), various joint conditions (joint stiffness and instabilities, aseptic osteonecrosis), immunological diseases (juvenile arthritis, dermatomyositis), other conditions (rickets, secondary anaemia, stature-weight deficiencies), and also respiratory system conditions (bronchial asthma, chronic bronchitis, etc.). All children were able to walk and didn't need a wheel chair.

2.2. Procedure

The intervention was performed once weekly for ten weeks, since November 2019 to January 2020. The research did not need an ethics committee approval prior development. The students' caregivers gave their informed consent for participating in the study and were informed of the withdrawing possibility, with no other consequences on their status etc. The students were randomly and equally assigned either to an experimental or a control group. Anxiety, empathy and prosocial behaviour have been measured using specific questionnaires filled out by the students' caregivers at the beginning and at the end of the art therapy program.

2.3. Instruments

Anxiety has been measured using a questionnaire obtained by adapting the Spence Children's Anxiety Scale (SCAS)- parent version, developed by Spence (2000). As stated by its author, the instrument has the advantage that, unlike many other anxiety measurement instruments, it examines anxiety symptoms related to specific anxiety disorders, is constructed based on empirical differentiations between anxiety symptoms in children versus adults, and is not constructed based on application to a clinical population. The instrument includes 38 items and an open question that is not scored, these representing statements in relation to which the parent must express their agreement on a 4-point Likert scale, where 0 = never, 1 = sometimes, 2 = often, 3 = always, which means that the answers were scored so that a high score indicates a high level of anxiety and vice versa. The scale is composed of the following subscales: 1) panic attacks and agoraphobia (items 12, 19, 25, 27, 28, 30, 32, 33, 34); 2) separation anxiety (items 5, 8, 11, 14, 15, 38); 3) fear of physical injury (items 2, 16, 21, 23, 29); 4) social phobia (items 6, 7, 9, 10, 26, 31); 5) obsessive-compulsive behaviour (items 13, 17, 24, 35, 36, 37); 6) generalized anxiety (items: 1, 3, 4, 18, 20, 22). The reliability coefficient (alpha Cronbach) of the questionnaire was 0.79.

Empathy has been measured using a questionnaire for the assessment of empathy in children, obtained by adapting the Empathy/Systemizing Quotient (EQ-SQ) questionnaire (Child), developed by Auyeung et al. (2009). From the total number of items in the questionnaire, we chose only the 27 items that measure empathy, these representing statements in relation to which the parents must express their agreement on a 4-point Likert scale, where 0 = total disagreement, 1 = partial disagreement, 2 = partial agreement, 3 = total agreement, which means that the answers were scored so that a high score indicates a high level of empathy and vice versa. The total score is obtained by summing the scores for each item. The reliability coefficient (alpha Cronbach) of the questionnaire was 0.78.

Prosocial behaviour has been measured using a questionnaire obtained by adapting the Prosocial Behaviour Subscale, a subscale of the Social-Emotional Character Development Scale (SECDS), developed by Ji & DuBois (2013). The scale is dedicated to measuring the prosocial behaviour of primary school students (6-11 years old) and is recommended by its authors because it is short, easy to apply and shows good fidelity and validity, as well as sensitivity to the effects of interventions. The instrument includes 5 items, these representing statements in relation to which the parent must express his agreement on a 4-point Likert scale, where 0 = total disagreement, 1 = partial disagreement, 3 = partial agreement, 4 = total agreement, which means that responses were scored such that a high score indicated a high level of prosocial behaviour and vice versa. The total score is obtained by summing the scores for each item. The reliability coefficient (alpha Cronbach) of the questionnaire was 0.78.

The group art therapy program included 10 art therapy sessions, lasting 50 minutes each, carried out at a rate of one session per week. The program was flexibly integrated as a part of the school curriculum, following the school-year schedule. The art therapy program was designed based on an eclectic and integrative art therapeutic approach and on the Phronetik® art therapy principles. The main modality used in the program was visual art therapy. The group was conducted by an art therapy practitioner (first author of this study) who completed the two-years basic program and was engaged in the two-years advanced program in Phronetik® art therapy, through the Romanian Association of Expressive Therapies. Th structure of each session included: 1) interactive warming up activities, 2) active art therapeutic main activities, using visual art modalities, centred around the main themes fulfilling the aims of the program such as: promoting

participants' self-concept, enhancing self-esteem, empathy, prosocial behaviour, and decreasing anxiety, and 3) feedback and sheering.

3. Results

According to the statistical data analysis using SPSS, it was found that there was a significant difference in students' anxiety, empathy, and prosocial behaviour levels before and after participating in the art therapy program within the experimental group, and no significant difference within the control group.

More specifically, using the paired samples t-test analysis, it was found that there was a significant difference in student's anxiety level ($t(9) = 92.47$, $p = 0.00$, $p < 0.05$) within the experimental group, before and after participating in the art therapy program, but no significant difference within the control group ($t(9) = 0.42$, $p = 0.67$, $p < 0.05$). The mean level of anxiety within the experimental group before the students' participation in the art therapy program was 111.7 (SD=1.94), and after the participation was 68 (SD=2.4). The mean level of anxiety within the control group before the students' participation in the art therapy program was 112.2 (SD=1.78), and after the participation was 112.1 (SD=1.59).

Also, using the paired samples t-test analysis, it was found that there was a significant difference in student's empathy level ($t(9) = 24.09$, $p = 0.00$, $p < 0.05$) within the experimental group, before and after participating in the art therapy program, but no significant difference within the control group ($t(9) = 1.62$, $p = 0.13$, $p < 0.05$). The mean level of empathy within the experimental group before the students' participation in the art therapy program was 25.1 (SD=3.98), and after the participation was 70.4 (SD=9.4). The mean level of empathy within the control group before the students' participation in the art therapy program was 24.8 (SD=4.26), and after the participation was 25.3 (SD=4.19).

Similarly, using the paired samples t-test analysis, it was found that there was a significant difference in student's prosocial behaviour level ($t(9) = 24$, $p = 0.00$, $p<0.05$) within the experimental group, before and after participating in the art therapy program, but no significant difference within the control group ($t(9) = 1.26$, $p = 0.23$, $p < 0.05$). The mean level of prosocial behaviour within the experimental group before the students' participation in the art therapy program was 2.9 (SD=1.85), and after the participation was 14.4 (SD=1.77). The mean level of prosocial behaviour within the control group before the students' participation in the art therapy program was 3 (SD=2.1), and after the participation was 3.6 (SD=1.5).

4. Discussion

The analysis of the statistical results in relation to each hypothesis indicates, on the whole, the validation of all these hypotheses. The neuro-psycho-motor disabled students who participated in the art therapy program showed a significantly lower level of anxiety and a significantly higher level of empathy and prosocial behaviour at the end of this program, while the neuro-psycho-motor disabled students in the control group, who did not participated in the group art therapy program, showed no significant difference in their levels of anxiety, empathy, and prosocial behaviour between the test phase and the re-test phase of the intervention. Psychologically, these statistical results are interpreted in the sense that the group art therapy program had a significant effect on all dependent variables studied, namely anxiety, empathy and prosocial behaviour, in the sense of decreasing anxiety and increasing the level of empathy and prosocial behaviour, respectively.

Although the study might have an important practical value, in the sense that it could serve as a foundation for developing and implementing research-based art therapy interventions in schools for strengthening special educational needs students' social emotional competencies and supporting their positive development, we must mention that it has some geographical and methodological limitations. The most obvious one is that it was conducted on a small sample of students from a particular geographical area. Also, a comparison between students participating in a group art therapy program and students participating in a different type of group intervention might be set for a more accurate view on art therapy's efficacy on decreasing anxiety levels and increasing empathy and prosocial behaviour levels in the investigated sample. Therefore, further research and caution are recommended before the results and conclusions can be generalized.

Albeit, at first sight, the results of the present study do not seem to bring anything new compared to what has been highlighted in the literature regarding the beneficial influence of art therapy on the social emotional development of neuro-psycho-motor disabled children (Warmbrodt, 2020; Coleman & Cramer, 2015; Alyami, 2009), there are some novelty elements that are worth highlighting. On the one hand, although art therapy has proven effective in rehabilitating of various aspects of social emotional development in different vulnerable categories, we have not been able to identify sufficient empirical evidence on the impact of art therapy explicitly on empathy, prosocial behaviour and anxiety particularly in children with neuro-psycho-motor disabilities, in an educational context, the emphasis

being on the use of art therapy for their physical rehabilitation. Thus, the present paper comes to supplement this empirical evidence, emphasizing, once more, the social emotional developmental potential that art therapy might have in the case of students with neuro-psycho-motor deficiencies.

5. Conclusion

The study indicates that the participation of special educational needs students with neuro-psycho-motor deficiencies in a group art therapy program, held in the school environment, leads to a significant decrease in their anxiety levels and a significant increase in their empathy and prosocial behaviour level. Therefore, art therapy might be effectively used, in an educational context, to address the social emotional developmental needs of special educational needs children with neuro-psycho-motor deficiencies and support their positive development.

Acknowledgements

Thank you to all my students and their parents who participated in this study. Your contribution means a lot to me.

This paper was presented at the 8th edition of the ENSEC Conference on the topic Social Emotional Learning and Positive Development held at Suceava, Romania, between 30th of June to 3rd of July 2022.

References

Abbing, A., Ponstein, A., van Hooren, S., de Sonneville, L., Swaab, H., & Baars, E. (2018). The effectiveness of art therapy for anxiety in adults: A systematic review of randomised and non-randomised controlled trials. *PloS one*, *13*(12), e0208716. https://doi.org/10.1371/journal.pone.0208716

Alavinezhad, R.., Mousavi, M., & Sohrabi, N. (2014). Effects of art therapy on anger and self-esteem in aggressive children, *Procedia - Social and Behavioral Sciences 113*, 111 – 117. https://doi.org/10.1016/j.sbspro.2014.01.016

Alyami, A.M. (2009). The integration of art therapy into physical rehabilitation in a Saudi hospital. *Arts in Psychotherapy, 36*, 282-288. https://doi.org/10.1016/j.aip.2009.07.001

Auyeung, B., Wheelwright, S., Allison, C., Atkinson, M., Samarawickrema, N., Baron-Cohen, S. C. (2009). The children's empathy quotient and systemizing quotient: Sex differences in typical development and in autism spectrum conditions. *Journal of Autism and Developmental Disorders, 39,* 1509-1521. https://doi.org/10.1007/s10803-009-0772-x

Browning, M., Larson, L. R., Sharaievska, I., Rigolon, A., McAnirlin, O., Mullenbach, L., Cloutier, S., Vu, T. M., Thomsen, J., Reigner, N., Metcalf, E. C., D'Antonio, A., Helbich, M., Bratman, G. N., & Alvarez, H. O. (2021). Psychological impacts from COVID-19 among university students: Risk factors across seven states in the United States. *PloS one, 16(1)*, e0245327. https://doi.org/10.1371/journal.pone.0245327

Cefai, C., Bartolo, P., & Cavioni, V. (2018). Strengthening social and emotional education as a core curricular area across the EU: a review of the international evidence: analytical report. *European Commission, Directorate-General for Education, Youth, Sport and Culture. Publications Office.* Retrieved May 27, 2020 from https://data.europa.eu/doi/10.2766/664439

Ciobanu, R. (2017, August 2). Ghid cu strategii în lucrul cu copiii cu tulburari psiho-motorii. Tehnica – art terapie Phronetik®. *Asociația Română de Terapii Expresive. Blog Proiecte ARTE.* http://expresive.ro/ghiduri-de-lucru-parteneriat-mol-arte-fundatia-pentru-comunitate/

Coleman, M.B., & Cramer, E.S. (2015). Creating meaningful art experiences with assistive technology for students with physical, visual, severe, and multiple disabilities. *Art Education, 68:2*, 13 - 6. https://doi.org/10.1080/00043125.2015.11519308

Eisenberg, N., & Fabes, R. (1990). Empathy: Conceptualization, measurement, and relation to prosocial behavior. *Motivation and Emotion, 14*(2), 131-149. https://doi.org/10.1007/BF00991640

Eisenberg, N., Fabes, R. A., Karbon, M., Murphy, B. C., Carlo, G., & Wosinski, M. (1996). Relations of school children's comforting behavior to empathy-related reactions and shyness. *Social Development, 5*(3), 330–351. https://doi.org/10.1111/j.1467-9507.1996.tb00089

European Federation of Art Therapy (2018). *What is art therapy? A descriptive definition.* Retrieved July 9, 2020, from https://www.arttherapyfederation.eu/art-therapy.html

Franklin, M. (2010). Affect Regulation, Mirror Neurons, and the Third Hand: Formulating Mindful Empathic Art Interventions. *Journal of the American Art Therapy Association*, *27(4)* pp. 160-167. https://doi.org/10.1080/07421656.2010.10129385

Freilich, R.., & Shechtman, Z. (2010). The contribution of art therapy to the social, emotional, and academic adjustment of children with learning disabilities. *The Arts in Psychotherapy, 37(2)* 97–105. https://doi.org/10.1016/j.aip.2010.02.003

Gherguţ, A. (2013). *Sinteze de psihopedagogie specială: ghid pentru concursuri şi examene de obţinere a gradelor didactice* (3rd ed.). Polirom Publishing

Goleman, D. (2001). *Inteligenta emoțională.* Curtea Veche Publishing

Haley, B. (2018). *Expressive Arts to Promote Regulation and Empathy in the Classroom: A Community Engagement Project*. (Publication No. 86) [MA Thesis, Lesley University]. Expressive Therapies Capstone Theses. https://digitalcommons.lesley.edu/expressive_theses/86

Halle, T. G., & Darling-Churchill, K. E. (2016). Review of measures of social and emotional development. *Journal of Applied Developmental Psychology, 45,* 8–18. https://doi.org/10.1016/j.appdev.2016.02.003

Hakeem, K. A. (2015). *People with Physical Disabilities and Their Working Life. A Case Study about Finnish People with Physical Disabilities*. [Degree: Programme in Social Services. Bachelor of Social Services Thesis. Diaconia University of Applied Sciences]. THESEUS. https://www.theseus.fi/bitstream/handle/10024/101221/Kasambula%20Adul%20Hakeem-thesis.pdf?sequence=1

Ji, P., DuBois, D. L., & Flay, B. R. (2013). Social-Emotional and Character Development Scale. Development and initial validation with urban elementary school students. *Journal of Research in Character Education, 9*, 121–147

Knafo-Noam, A. (2016). Prosocial behaviour. *Encyclopedia of early childhood development*. Retrieved May 24, 2020 from http://www.child-encyclopedia.com/sites/default/files/dossiers-complets/en/prosocial-behaviour.pdf

Kõiv, K., Hannus, R., & Kaudne, L. (2019). Effects of integrated arts therapy intervention in youngsters at risk for delinquency. In Z. Bekirogullari, M. Y. Minas, & R. X. Thambusamy (Eds.). *ICEEPSY 2017: Education and Educational Psychology, vol 31. European Proceedings of Social and Behavioural Sciences* (pp. 17-28). Future Academy. https://doi.org/10.15405/epsbs.2017.10.3

Kou, X., Konrath, S., & Goldstein, T.R. (2020). The relationship among different types of arts engagement, empathy, and prosocial behaviour. *Psychology of Aesthetics, Creativity, and the Arts, 14*, 481-492. https://doi.org/10.1037/aca0000269

Malchiodi, C. A. (Ed.). (2003). *Handbook of art therapy*. The Guilford Press

McDonald, A., Holttum, S., & Drey, N.S.J. (2019). Primary-school-based art therapy: exploratory study of changes in children's social, emotional and mental health. *International Journal of Art Therapy, 24:3*, 125-138. https://doi.org/10.1080/17454832.2019.1634115

Mic, M. & Cârcu, A. (Eds.). (2016). *Intervenţei timpurie la copilul cu dizabilităţi neuro-psiho-motorii: ghid practic*. Nosa Nostra Publishing

Moustafa, D. (2015). Art therapy & Depressed Children & Adolescents with Autism Spectrum Disorder: Overview. *Linkedin*. Retrieved January 18,

2019 from https://www.linkedin.com/pulse/art-therapy-depressed-children-adolescents-autism-deena-moustafa

Piqueras, J. A., Martín-Vivar, M., Sandin, B., San Luis, C., & Pineda, D. (2017). The Revised Child Anxiety and Depression Scale: A systematic review and reliability generalization meta-analysis. *Journal of affective disorders*, *218*, 153–169. https://doi.org/10.1016/j.jad.2017.04.022

Preda, V. (2004). *Terapii prin mediere artistică*. Presa Universitară Clujeană Publishing

Rubin, J.A. (2005). *Child Art Therapy: 25th Anniversary Edition*. John Wiley and Sons, Inc.

Sarid, O., & Huss, E. (2010). Trauma and acute stress disorder: A comparison between cognitive behavioural intervention and art therapy. *The arts in psychotherapy, 37(1),* 8-12. https://doi.org/10.1016/j.aip.2009.11.004

Schreefel, E.Y. (2015). *The Role of Art Making in the Recovery from a Physical Disability due to Trauma* (Publication No. 152) [Research paper in partial fulfilment of the Requirements for the Degree Masters of Arts in Marital and Family Therapy, Loyola Marymount University]. LMU/LLS Theses and Dissertations. http://digitalcommons.lmu.edu/etd/152

Schweizer, C., Knorth, E.J., & Spreen, M. (2014). Art therapy with children with autism spectrum disorders: A review of clinical case descriptions on "what works". *The Arts in Psychotherapy*, *41(5),* 577-593. https://doi.org/10.1016/j.aip.2014.10.009

Sivapalan, H. (2015). Arts and vulnerable people: examining the evidence base. *Lemos&Crane.* https://www.artshealthresources.org.uk/wp-content/uploads/2019/03/2015-Arts-and-vulnerable-people.pdf

Spence S. H. (1998). A measure of anxiety symptoms among children. *Behaviour research and therapy*, *36*(5), 545–566. https://doi.org/10.1016/s0005-7967(98)00034-5

Spence, S.H. (2000). Spence Children's Anxiety Scale (Parent Report). *SCAS*. Retrieved September 15, 2019 from https://www.scaswebsite.com/

Ştefan, C. A., & Kállay, É. (2010). *Dezvoltarea competenţelor emoţionale şi sociale la prescolari. Ghid practic pentru părinţi.* (2nd Ed.). ASCR Publishing

Tauber, A. (2018, October 16). Does art therapy work for anxiety? Creativity and comprehensive treatment programs. *Bridges to Recovery Blog.* https://www.bridgestorecovery.com/blog/does-art-therapy-work-for-anxiety-creativity-and-comprehensive-treatment-programs/

Van Lith, T., Fenner, P., & Schofield, M. (2009). Art Therapy in Rehabilitation. *ResearchGate.* Retrieved July, 7, 2020 from https://www.researchgate.net/publication/237092398_Art_Therapy_in_Rehabilitation

Verza, E. (1997). *Psihopedagogie special. Manual pentru clasa a XIII-a, școli normale.* (5th Ed.). EDP Publishing

Warmbrodt, R. (2020, May 6). Engaging in the arts for children with cerebral palsy. *Cerebral Palsy. Our Blog.* https://www.cerebralpalsyguidance.com/cerebral-palsy/living/engaging-arts/