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Breakthrough in Humanistic Medicine: Research on the Rise and Principle of Painting Art Therapy

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Abstract

This paper explores the emergence of painting art therapy as a major breakthrough in humanistic medicine, and its use as a clinical adjunct to treat various diseases. Through a literature review, the paper reveals that the healing mechanisms of painting art therapy are based on a combination of factors, including the Mind-Body Connectivity theory and brain plasticity. The therapy is effective due to the immersion in the present moment in a mindfulness way, non-verbal and symbolic forms that facilitate free expression and reconstruction, and a high-quality therapeutic relationship. The widespread use of painting art therapy proves its universality and effectiveness, highlighting the importance of humanities in medical settings.

Keywords: Art Therapy, Psychology, Clinical Medicine, Art, Modern Medicine

1. Introduction

As one of the major breakthroughs in the development of humanistic medicine, painting art therapy has been used by medical institutions worldwide as a clinical adjunct to the treatment of various diseases. In this paper, we explore the emergence of painting art therapy and its healing mechanisms through a literature review, revealing that the emergence of painting art therapy has a specific historical basis and practical development process. Its healing effects are the result of a combination of factors: Mind-body Connectivity theory and brain plasticity provide neurobiological theoretical support for painting art therapy; immersion in the present moment in a mind-fulness way; non-verbal and symbolic forms facilitate free expression and reconstruction; where high quality therapeutic relationship is the basis for all elements to be

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effective. The widespread use of painting art therapy proves its universality and effectiveness, shedding new light on the return and revival of the humanities in medical settings.

2. Definition of Painting Art Therapy

Before conceptualising art therapy in drawing, we first need to explain the concept of art therapy as it relates to this study. In the current international mainstream of psychotherapy, art therapy refers to drawing and painting, i.e. the use of traditional tools such as pencil, watercolour and oil paint to create drawings and paintings in psychotherapy. As the meaning of art continues to expand, the creative methods used in art therapy have also diversified, with other visual art forms such as sculpture, collage, decoration and electronic imaging gradually being incorporated (Rubin, 1999). Other forms of visual art such as sculpture, collage, decoration and electronic imaging are gradually being incorporated (Rubin, 1999). In general, art therapy refers to visual art therapy, which is mainly based on the art of painting; it is alongside music therapy, dance therapy, drama therapy and so on.

The British Association of Art Therapists (BAAT) and the American Art Therapy Association (AATA) have provided definitions of art therapy. A, on the other hand, sees painting art therapy as a comprehensive psychotherapeutic approach that it helps individuals and families to improve cognitive and sensorimotor functions, increase self-awareness and self-esteem, and develop emotional resilience through the creation of art, with the aim of reducing conflict and distress (British Association of Art Therapists, 2022; American Art Therapy Association, 2022).

As can be seen, painting art therapy is both art and therapy, yet not a simple splice of the two. The teaching of drawing techniques cannot be called art therapy either, suggesting that ‘therapeutic’ is its fundamental attribute. Unlike traditional talk therapy and analytic therapy, painting art therapy involves the creation, appreciation and communication of artwork by the client under the guidance of the therapist (Park & Cha, 2023; Sutarjo, 2023). It does not require art-related skills and does not examine the aesthetic level of the client, but rather focuses on how the art experience in therapy can contribute to the individual’s perception and integration of self (Sutarjo, 2023). The relationship as a foundation, the artistic expression of the painting as a medium and the psychological healing as a goal are the essential components of painting art therapy.

3. The Emergence and Development of Painting Art Therapy

The significance of the arts for the formation and purification of the mind has been long debated. Aristotle, in his “The Politics Of Aristotle” and “Aristotelous peri Poietikes”, refers to the central position of poetry and music in the system of political education. The public

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education of Athenian youth consisted of physical fitness, reading and writing, poetry and painting, of which poetry and painting helped to enhance the virtue and character of young people (McKeon, 2009). Immanuel Kant's critical aesthetics suggests that the aesthetic occupies a key position between the sensual and the intellectual, regulating both theoretical and practical reason (Rajabi, 2022).

Asian cultures have also given art an important place in the spirituality of the mind. Chinese, Korean and Japanese literati generally see art as a reflection of the subject's state of being, and as a means by which people can look into their hearts and minds, and in which the state of the mind can be enhanced through constant interaction with art (Deshmukh, Holmes & Cardno, 2018; Gras, 2023). Between the 19th and 20th centuries, Western psychiatry and psychology developed considerably. As psychiatrists and psychologists explored psychiatric theories and effective treatments, they explored the importance of art to the 'goodness of the soul' and gradually introduced different forms of artistic expression into psychotherapy.

Firstly, it is related to the evolution of painting itself: artists moved from depicting the external world to focusing on the internal world. The rise of Impressionism in the late mid-19th century suggests that artists turned to a subjective representation of the world (Hung et al, 2023). Edvard Munch fully demonstrated the attempt of Expressionism in depicting subjective emotions in his 1893 painting "The Scream" (Berman, 2023). Surrealism, on the other hand, was more radical, exploring ways of directly representing unconscious themes such as imagination and dreams (Vassil'evich, 2016); the viewer was no longer presented with a realistic picture of the world as the artist saw it, but rather with a picture of the world of illusion. This series of transformations suggests that painting can be used as a way of presenting the content of the 'mind', making it possible to incorporate it into psychotherapy.

In addition, in the field of art criticism, there has been a great deal of interest in original art. In the 1940s, Jean Dubuffet introduced the concept of Art Brut, also known as Outsider Art. Art Brut refers to forms of art created spontaneously by creators who are not trained in art and who do not follow the artistic standards of the academy (Deshmukh, Holmes & Cardno, 2018). Art critics have argued that these seemingly crude works, which do not conform to traditional artistic norms, convey in a rustic way what the creator intends to express and fully express the essence of art (Kovács & Simon, 2010; Lentz, 2008). In addition to the original artists, the creators of original art include children, prisoners and the mentally ill, whose ability to create and express themselves is seen and recognised, providing a realistic and viable basis for the introduction of painting into the educational and clinical psychological realm of children (Qiu et al, 2017).

The emergence and development of drawing and art therapy is the result of a long period of practice and reflection by many clinical psychologists. In 1887, the French psychiatrist Paul

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Max Simon published a study on the paintings of patients with mental disorders, noting that they were related to their inner conflicts (Rubin, 1986). Thelma Alper found differences in the finger painting work of children from different socio-economic backgrounds (Francis-Williams, 2014). Psychoanalysis developed a projective test to analyse the psychological characteristics of visitors through their perceptions of the pictures (Goodnow, 1988). On the other hand, the psychological regulation and healing effects of painting are gaining increasing attention from psychiatrists and therapists. In the mid-20th century, Adrian Hill wrote “Art Versus Illness”, describing how painting helped to stabilise his mind and inspire courage in his treatment of tuberculosis (Gaynor, 2012); he applied the same approach to his patients after his recovery. In 1973, he founded “Art Therapy”, a journal on the art of painting. At the same time, Margaret Naumburg and Edith Kramer experimented with art therapy in the United States, which gave a major boost to its use in the country (Feldwisch, 2022). In the meantime, Margaret Naumburg and Edith Kramer experimented with art therapy in the United States, giving a major boost to its use and development in the country (Rubin, 1999; Deshmukh, Holmes & Cardno, 2018).

4. Principles and Mechanisms of Painting Art Therapy

There is some controversy about how the art of painting can have a healing effect. Margaret Naumburg and Edith Kramer, American pictorial art therapists, represent the two main views, with Margaret Naumburg suggesting that painting is a form of symbolic self-expression through which therapists and clients interpret and analyse the ‘unconscious’, and Edith Kramer suggesting that art-making is therapeutic, seeing it as a path to sublimation and facilitating the integration of the client’s own feelings and inner conflicts (Rubin, 1999). This paper argues that both are key to the role of the art of painting and that they cannot be decisively separated from each other. In addition, there are other factors that contribute to the restorative effect of painting on the human psyche.

1.1 The Neurobiological Basis of Painting Art Therapy

Clinical neuroscience is the application of neurobiology to clinical psychology, where neuroimaging can link observable behaviour and measurable brain activity to help clinicians further understand the relationship between neural structure, function and environment (Farisco et al, 2022).

1.2 Mind-body Connectivity Theory

The Mind-body Connectivity theory links the nervous system, the immune system and the psyche. An understanding of Mind-body Connectivity theory is crucial to understanding the neurobiological mechanisms of action in art therapy (Deshmukh, Holmes & Cardno, 2018).

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The autonomic nervous system can be further divided into the sympathetic nervous system and the parasympathetic nervous system. The sympathetic nervous system reinforces the function of the individual and encourages him or her to act, e.g. to escape from a dangerous situation; the parasympathetic nervous system relaxes the individual (Lee, Lee & Ha, 2022; Imai & Katagiri, 2022). In everyday life, the two systems complement each other and the individual switches smoothly between excitement and relaxation. The limbic system is very sensitive to threat, and in crisis situations the brain areas that function are mainly older central brain areas that are more closely linked to the limbic system, and the neocortex is limited in its function (Błaszczuk, 2022; Holz et al, 2022). In chronic stressful situations, the main neural activity of the brain shifts from an integrative function in the prefrontal cortex to a survival response function based on the limbic system (Musillo, Berry & Cirulli, 2022). This shift in function helps individuals to mobilise their resources in response to crises by modulating the activity of endocrine systems and neurotransmitters, but in the long term it can lead to a decline in immune function and even affect higher brain functions such as memory and cognition (Duman, 2022). Stressors may be resolved by changing the environment and finding new ways of coping, but the experience of insecurity and fear will remain (Johnson et al, 2022).

Art therapy with painting is a concrete application of Mind-body Connectivity in clinical practice to improve poor Mind-body Connectivity by addressing acute and chronic stress (Robb, 2022). While artistic creation can be experienced as a neurological stimulus, evoking positive emotions, once the task is more difficult than the individual is capable of, the stress response can increase accordingly. Art therapy therefore seeks to create a supportive environment that promotes relaxation and restoration (Liu et al, 2022). At the same time, therapy does not avoid frustrating situations, but rather helps the individual to learn to accept and cope with stress and frustration in a more peaceful way (Li & Peng, 2022). Accompanied by a therapist, clients learn to live with negative experiences, such as difficulties in the painting process and the discomfort of the texture of the material, and learn to continue to mobilise their emotional expressions and muscles until the work is completed.

Although therapies such as meditation are also interventional, they guide the visitor through a behavioural training process to rebalance the sympathetic-parasympathetic nervous system (Robb, 2022). In contrast, art therapy is characterised by a more expressive and relational approach that promotes inner repair and reconstruction; it is also a more integrated way of helping individuals to increase their sense of control, as opposed to the traditional dialogic approach, which requires visitors to engage their body perception and movement to complete the painting (Jue & Ha, 2022).

1.3 Brain Plasticity

The phenomenon of brain plasticity is one of the most important findings in neuroimaging and is very instructive for clinical applications: “According to magnetic resonance morphology,

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the brain has been found to be able to change its morphology over a period of weeks, making structural changes to physical and mental activity” (Dai et al, 2018). The morphological structure and functional activity of the brain is reconstructed in response to changes in the internal and external environment (Dai et al, 2018); it has the ability to compensate for traumatic deficits by strengthening, renewing and rewiring the ‘wiring’. It was previously thought that plasticity in the brain occurred only at the beginning of life; today there is a broad consensus that the brain is ‘plastic’ throughout the life course. Cognitive behavioural therapy has been shown to bring about changes in brain function by changing perceptions of others and patterns of behaviour (Fox et al, 2018).

The right hemisphere of the brain is associated with emotions, avoidance, intuition and non-verbal functions, while the left hemisphere is associated with sequential, problem-solving, active functions and is the linguistic dominant area (Gurunandan, 2020). Drawing activates tactile sensations related to the primary sensory cortex, perceptual activities related to emotions and feelings, and motor perception.

1.4 The Artistic Process As ‘Mind-fulness’

The uniqueness of the painting process in therapy lies in the fact that there is no emphasis on technique or aesthetic standards and the therapist does not judge the client's ability or work. The aim is to facilitate immersion in the ‘here and now’, to experience and accept the present moment without judgement, and to feel a sense of self and connection with the outside world. This is in line with the philosophy of ‘mind-fulness therapy’. JonKabat Zinn defines mind-fulness as ‘the practice of the mind’, which is a Buddhist practice of Eastern origin, translated into English as ‘mind-fulness’ in 1921, and has since been widely used in the field of psychotherapy (Giraldi, 2019). BAAT points out that although primarily influenced by psychoanalysis, pictorial art therapy has also been inspired by other therapeutic concepts, including BAAT points out that although primarily influenced by psychoanalysis, painting art therapy is also inspired by other therapeutic concepts, including psychotherapy based on mind-fulness and meditation (British Association of Art Therapists, 2022). Oriental culture, which is strongly influenced by Zen culture, places greater emphasis on meditation in calligraphy and the tea ceremony in order to cultivate the body and mind. Research has shown that mind-fulness training improves the way individuals process information, showing a more positive experience when faced with positive information, and a more adaptive ability to adjust to mixed situations (Yuan et al, 2021; Coo & Salanova, 2018); the perception of negative information is reduced. This is associated with non-judgement and acceptance of internal and external stimuli (Xu et al, 2022).

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In a study of psychological interventions for women with cancer, the efficacy of painting art therapy based on mind-fulness was demonstrated, with patients receiving painting art therapy experiencing significantly less distress compared to the control group (Goldberg et al, 2022).

1.5 Non-verbal Treatment Modalities

The fundamental difference between painting art therapy and traditional psychotherapy is the use of non-verbal forms of therapy. Traditional psychotherapy, which originated from psychoanalysis, relies on verbal expression and communication. Although the therapist also pays attention to non-verbal information such as looks and movements, language still occupies a central place in therapy (Inomjonovna, 2023). In painting art therapy, artistic expression takes the place of ‘words’ and the client seeks to express himself freely with the brush in an atmosphere of safety and trust (Einhorn, Shamri-Zeevi & Honig, 2023).

On the one hand, in some cases it is advantageous to use images to express psychological content. The existence of phenomena such as dreams and hallucinations reveals that part of the mental content is encoded, stored, extracted and reproduced in the form of images. The psychoanalytic approach developed by Sigmund Freud, which focuses on the analysis of dreams, has the difficulty of translating dreams presented in the form of visual images into language, which does not follow objective logic and rules, and which inevitably leads to omissions or confusion (Schneider, 2010). Carl Gustav Jung encourages patients to bypass language and to reproduce their dreams directly through drawing (Yuan et al, 2021). On the other hand, non-verbal individuals, such as children or psychiatric patients, have difficulty describing their feelings verbally and accurately; difficulties with speech contribute to their chronically blocked expression; they respond better to vague, more autonomous, non-verbal treatments (Christmann, 2023). The abnormal developmental tendencies of some visitors (especially those with borderline disorders, personality disorders) may begin at an early age, or even be established at a pre-verbal developmental stage (Bao, 2023). Rapid changes and maturation of brain areas associated with experience are important features of the first two years of life.

The rapid changes and maturation of brain areas associated with experience are important features of the first two years of life. During this period, infants’ interactions with caregivers and their perception of their surroundings leave an imprint on the nervous system, which becomes the physiological basis for later psycho-behavioural traits (Anwer et al, 2022). Thus, many emotional experiences and responses exist before verbal expression is acquired. The difficulty of verbalising these mental contents is further compounded by the fact that drawing expression helps these individuals to develop another non-verbal way of observing and organising their confusing inner feelings (Mac Giolla Ri, 2023). This is an emotional ability that they have lacked in the past: “the ability to feel and express anger and anxiety in a rational

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way, to the right person, at the right time, for the right motivation. Also, many traumatic experiences are too intense to verbalise, and non-verbal work has an advantage. Intense crises activate the limbic system and central brain areas closely related to the limbic system, thereby temporarily disabling brain areas that regulate language function” (Meeres & Hariz, 2022). This allows the patient to gradually open up his or her own mind, thus making therapeutic work and psychological recovery possible.

1.6 The ‘Container’ Role of The Counselling Relationship

Whereas art is done by the artist alone, painting art therapy is an interactive relationship. Unlike art courses, which reflect a ‘teaching & learning’ relationship, art therapy emphasises the interactive nature of the therapist and the visitor as equals (McKay et al, 2023). Painting in therapy is thus a dual process of sorting out the inner self and the outer person. A safe, equal, embracing and intimate relationship is established between the visitor and the counsellor, which is difficult for the visitor to experience before. The relationship is both the basis for healing and also plays an important healing role.

Car Rogers, who founded humanistic psychology in the 1950s, was the ‘third force’ in psychology. He proposed a ‘person-centred therapy’, in which people have the desire and potential for self-growth and self-fulfilment, so that psychotherapy simply provides an environment of unconditional acceptance and positive attention, where the fully respected and empathic client will spontaneously seek solutions and self-improvement (Pongan et al, 2017). The therapist also does not simply express support and encouragement, but presents the creative process, the work and his or her own feelings all as sources of information that are sincerely presented into the therapeutic interaction. The visitor’s inner strength is stimulated to cope with external difficulties. The positive, communicative holding environment becomes the best ‘container’ for self-growth (Pongan et al, 2017). Painting art therapy not only enhances the human relationship, but also establishes a human-object relationship. It offers the visitor a new way of living and communicating: a way of talking to things, a way of placing oneself in things. The individual's life is no longer completely immersed in a negative experience of total hurt, loneliness and isolation.

1.7 Symbolic Expressions & Reconstructions

The German philosopher Ernst Cassirer defined the human being as an ‘animal symbolicum’, whose most representative characteristic is symbolic thinking and behaviour, and whose special capacity is symbolic imagination. The human being represents the symbols of the internal mental world through the symbols of the external material world (Yuan et al, 2021). BAAT sees the painting art as a therapeutic process of “developing symbolic language, touching on feelings that one is unaware of” and integrating these feelings through the creation

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of paintings (Deshmukh, Holmes & Cardno, 2018). The therapeutic effect is achieved by integrating these feelings through painting (Pongan et al, 2017).

At the same time, art, like children's play, offers the freedom of 'unreality'. The psychologist D.W. Winnicott calls this 'transitional space', a space that is neither entirely internal nor entirely external, and that accommodates both the external reality and the content of the individual's own mind, maintaining a state of separation and connection between the internal and external realities (McKeon, 2009).

The presence of symbols and transitional spaces enhances the experience of freedom and the lack of clarity of meaning makes the visitor feel more secure. Overwhelming emotional experiences become gentler and more self-accepting. When the visitor is not ready to share feelings and content with the counsellor, it is possible to remain at the level of symbolic expression without interpretation. Because art is symbolic and value-neutral, as Adorno put it, "art is essentially the negation of the illiberal", making individuals willing to express their 'dark side' in art (Pongan et al, 2017). Psychoanalytic theory suggests that people avoid traumatic feelings and unacceptable desires by repressing or distorting their experiences, a process that creates unconscious conflicts that continue to affect their emotions and behaviour, causing psychological disorders (Axmacher et al, 2010). The drawing process, on the other hand, is less constrained by values and defences, and the unconscious flows naturally. The visitor fully expresses the subliminal traumatic experience and unconscious conflict through pictorial representation, achieving sublimation (Dayton, 2023). The individual uses his or her destructive power in a constructive way, and defended feelings and desires can be seen, expressed and accepted. Here, therefore, the individual and the whole, desire and fulfilment, happiness and rationality are reconciled. Symbolic transcendence is expressed in the ability to combine subconscious and conscious content, replacing old defences and constructing new frameworks to accommodate inner chaos and conflict. Artistic creation is "an effort to confront division", a tidying up of the inner world: art does not deny suffering, but tries to overcome destructive forces with creative power, a creative process of introspection into life and the psyche (Levy & Shalgi, 2022).

5. Conclusion

In the last decade, painting art therapy has been used worldwide not only for individuals with psychological disorders such as depression, eating disorders, substance abuse and post-traumatic stress disorder, but also for inmates, patients and pregnant women. There are many mentally healthy individuals who seek personal growth and career breakthroughs through painting art therapy. Painting art therapy is also used to help children increase their mental resilience, self-confidence and self-esteem, as the non-verbal, activity-based format is

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more accessible to children and young people. The universality and effectiveness of painting art therapy as a psychotherapeutic approach is clear to all.

The art therapy represented by painting art therapy can also be used as a brick in the wall to explore the humanistic model of healthcare. A more biological approach to health care is one of the great achievements of modern mankind, one that has greatly improved the recognition and treatment of disease and the health of mankind. However, as practice developed, the medical model, which focused only on physiological structures and ‘allopathic treatment’, also showed its shortcomings, and the ‘human’ dimension was lost in the process. In the past, discussions on humanistic medicine focused on how to improve the concept of treatment and services for patients, ignoring the fact that the hospital is an organic whole and that the lack of a humanistic atmosphere has resulted in not only the patient becoming a mechanical body, but also the doctor becoming a machine that sees and treats patients. The return of humanism to the medical field is not just about improving the quality of service provided by medical staff, but about understanding the nature of the human being in all its aspects. At the same time, humanistic medicine is not an attempt to negate the traditional medical model, but rather to improve it through a series of initiatives. This paper explores how painting art therapy occurs and why art has a healing effect, i.e., to explore the mechanisms and principles of painting art therapy. Through an interdisciplinary and literature-based approach, the author discusses these areas in the context of psychology, art psychology, cognitive neuroscience, and brain neuroscience. The following conclusions are drawn.

(1) Painting art is a highly effective, safe, accessible, and non-verbal form of expression through which people can communicate deeply, through which emotions can be effectively vented, through which people can find solace and pleasure, and through which the subconscious can be made visible and integrated, and through which painting art is an expression of life, which can deeply touch the heart. These are the principles of painting art therapy, i.e., why painting art has a healing effect.

(2) From the perspective of psychology and brain neuroscience, artistic creation works on the body & mind in a sensory, experiential, and creative way, thus realising its healing. In other words, this is the psychological projection that takes place during the creation of art, the multi-sensory stimulation and association that occurs during creation, and the integration of the senses, the secretion of dopamine and endorphins in the brain as a result of artistic creation, and the regulation of emotions through creative activity. The painting art therapy is explained from the perspectives of art psychology, cognitive neuroscience, and brain neuroscience, mainly because they satisfy people's inner needs on a physical or psychological level, bring aesthetic pleasure to people, and transmit life energy to the audience in the process of aesthetics.

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(3) The effectiveness of painting art as a therapeutic tool is explained, as well as its advantages over traditional therapies: painting art therapy is universal, easy to use, has no side effects, is non-dependent, treats the body-mind together, and is more humanistic. In addition, the development and promotion of painting art therapy and the standardisation of the art therapy industry are called for, and the effective integration of painting art therapy with clinical medicine and psychology will benefit the development of the medicine and psychology. In today's society, it is necessary to investigate the therapy mechanisms and principles of art, as people need art to bring warmth and healing to more people, needs effective and convenient ways to heal their bodies and minds, and need art to give new energy and renewal to tired bodies and minds.

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References

- American Art Therapy Association (AATA). (2022). ABOUT ART THERAPY [online]. Available from: <https://arttherapy.org/about-art-therapy/> [Accessed: 23 April 2022].
- Anwer, S., Waris, A., Gilani, S. O., Iqbal, J., Shaikh, N., Pujari, A. N., & Niazi, I. K. (2022, February). Rehabilitation of Upper Limb Motor Impairment in Stroke: A Narrative Review on the Prevalence, Risk Factors, and Economic Statistics of Stroke and State of the Art Therapies. In *Healthcare* (Vol. 10, No. 2, p. 190). Multidisciplinary Digital Publishing Institute.
- Axmacher, N., Do Lam, A. T., Kessler, H., & Fell, J. (2010). Natural memory beyond the storage model: repression, trauma, and the construction of a personal past. *Frontiers in human neuroscience*, 4, 211.
- Bao, D. (2023). *Silence in English Language Pedagogy*. Cambridge University Press.
- Berman, P. (2023). *Edvard Munch and the Vitalized Bodies of National Science*.
- Błaszczuk, J. W. (2022). Pathogenesis of Dementia. *International Journal of Molecular Sciences*, 24(1), 543.
- British Association of Art Therapists (BAAT). (2022). What is art therapy? [online]. Available from: <https://www.baat.org/About-Art-Therapy> [Accessed: 23 April 2022].

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Christmann, D. K. (2023). Schizophrenia-Sick search engine the brain: Neurotic-psychotic developments: When the soul "googles" and the memory delivers increasingly irrational search results. BoD–Books on Demand.

Coo, C., & Salanova, M. (2018). Mindfulness can make you happy-and-productive: A mindfulness controlled trial and its effects on happiness, work engagement and performance. *Journal of Happiness Studies*, 19, 1691-1711.

Dai, X. J., Jiang, J., Zhang, Z., Nie, X., Liu, B. X., Pei, L., ... & Zhan, Y. (2018). Plasticity and susceptibility of brain morphometry alterations to insufficient sleep. *Frontiers in psychiatry*, 9, 266.

Dayton, T. (2023). *Heartwounds: The impact of unresolved trauma and grief on relationships*. Simon and Schuster.

Deshmukh, S. R., Holmes, J., & Cardno, A. (2018). Art therapy for people with dementia. *The Cochrane database of systematic reviews*, 9(9), CD011073.

Duman, R. S. (2022). Neuronal damage and protection in the pathophysiology and treatment of psychiatric illness: stress and depression. *Dialogues in clinical neuroscience*.

Einhorn, C. G., Shamri-Zeevi, L., & Honig, O. (2023). Case study of therapist-client co-creation for the treatment of relational trauma in children. *The Arts in Psychotherapy*, 101993.

Farisco, M., Pennartz, C., Annen, J., Cecconi, B., & Evers, K. (2022). Indicators and criteria of consciousness: ethical implications for the care of behaviourally unresponsive patients. *BMC Medical Ethics*, 23(1), 30.

Feldwisch, R. P. (2022). History, profession, and ethics of art therapy. In *Foundations of Art Therapy* (pp. 3-30). Academic Press.

Fox, A. S., Oler, J. A., Birn, R. M., Shackman, A. J., Alexander, A. L., & Kalin, N. H. (2018). Functional connectivity within the primate extended amygdala is heritable and associated with early-life anxious temperament. *Journal of Neuroscience*, 38(35), 7611-7621.

Francis-Williams, J. (2014). *Rorschach with children: A comparative study of the contribution made by the Rorschach and other projective techniques to clinical diagnosis in work with children*. Elsevier.

Gaynor, A. (2012). *Guy Grey-Smith Life Force*. Apollo Books.

Giraldi, T. (2019). *Psychotherapy, mindfulness and Buddhist meditation*. Springer Nature.

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Goldberg, S. B., Riordan, K. M., Sun, S., & Davidson, R. J. (2022). The empirical status of mindfulness-based interventions: A systematic review of 44 meta-analyses of randomized controlled trials. *Perspectives on psychological science*, 17(1), 108-130.

Goodnow, J. J. (1988). Parents' ideas, actions, and feelings: Models and methods from developmental and social psychology. *Child development*, 286-320.

Gras, M. (2023). Telling Time through Nation and Narration: Towards an understanding of Asian contemporary art in global Asia. In *The Routledge Handbook of Contemporary Art in Global Asia* (pp. 91-110). Routledge.

Gurunandan, K., Arnaez-Telleria, J., Carreiras, M., & Paz-Alonso, P. M. (2020). Converging evidence for differential specialization and plasticity of language systems. *Journal of Neuroscience*, 40(50), 9715-9724.

Holz, N. E., Berhe, O., Sacu, S., Schwarz, E., Tesarz, J., Heim, C. M., & Tost, H. (2022). Early social adversity altered brain functional connectivity and mental health. *Biological psychiatry*.

Hung, J., Sidó, A., Veress, D., Hansen, J., Ira, J., Klement, J., ... & Tompkins, A. (2023). Experiments and Avant-gardes in Modern History (ca. 1800–1900).

Imai, J., & Katagiri, H. (2022). Regulation of systemic metabolism by the autonomic nervous system consisting of afferent and efferent innervation. *International immunology*, 34(2), 67-79.

Inomjonovna, R. I. (2023). INFLUENCE OF INNOVATIVE IDEAS ON HUMAN PSYCHOLOGY IN TEACHING PAINTING TECHNIQUE THROUGH ART THERAPY. *Finland International Scientific Journal of Education, Social Science & Humanities*, 11(2), 126-134.

Johnson, K. T., Williams, P. G., Aspinwall, L. G., & Curtis, B. J. (2022). Resilience to stress-related sleep disturbance: Examination of early pandemic coping and affect. *Health Psychology*.

Jue, J., & Ha, J. H. (2022). Art Therapists' Fear of COVID-19, Subjective Well-being, and Mindfulness. *The Arts in Psychotherapy*, 101881.

Kovács, E., & Simon, L. (2010). Art therapy and "art brut". *Psychiatria Hungarica: A Magyar Pszichiatriai Tarsasag Tudományos Folyoirata*, 25(4), 323-332.

Lee, C. K., Lee, J. H., & Ha, M. S. (2022). Comparison of the Effects of Aerobic versus Resistance Exercise on the Autonomic Nervous System in Middle-Aged Women: A Randomized Controlled Study. *International Journal of Environmental Research and Public Health*, 19(15), 9156.

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Lentz, R. (2008). What we talk about when we talk about art therapy: an outsider's guide to identity crisis. *Art Therapy*, 25(1), 13-14.

Levy, D., & Shalgi, B. (2022). Imagination and fantasy: The dialectic nature of the encounter with trauma and dissociation. *Psychoanalytic Dialogues*, 32(1), 54-69.

Li, Y., & Peng, J. (2022). Evaluation of Expressive Arts Therapy on the Resilience of University Students in COVID-19: A Network Analysis Approach. *International Journal of Environmental Research and Public Health*, 19(13), 7658.

Liu, Z., Yang, Z., Xiao, C., Zhang, K., & Osmani, M. (2022). An investigation into art therapy aided health and well-being research: a 75-year bibliometric analysis. *International Journal of Environmental Research and Public Health*, 19(1), 232.

Mac Giolla Ri, D. (2023). Visualising Threshold Concepts in Social Care through the Semiotic Lens of Inquiry Graphics: Developing Threshold Graphics (Doctoral dissertation, Lancaster University).

McKay, L., Riley, T., King, J., Bamford-Mareroa, A., & Licence, S. (2023). Navigating a pathway of professional learning: Travelling the Hero's journey with first year pre-service teachers. *Teaching and Teacher Education*, 122, 103973.

McKeon, R. (Ed.). (2009). *The basic works of Aristotle*. Modern Library.

Meeres, J., & Hariz, M. (2022). Deep Brain Stimulation for Post-Traumatic Stress Disorder: A Review of the Experimental and Clinical Literature. *Stereotactic and Functional Neurosurgery*, 1-13.

Musillo, C., Berry, A., & Cirulli, F. (2022). Prenatal exposure to psychological or metabolic stress increases the risk for psychiatric disorders: The “funnel effect” model. *Neuroscience & Biobehavioral Reviews*, 104624.

Park, S. R., & Cha, Y. J. (2023). Effects of online group art therapy on psychological distress and quality of life after family bereavement: In COVID-19 pandemic. *The Arts in Psychotherapy*, 82, 101972.

Pongan, E., Tillmann, B., Leveque, Y., Trombert, B., Getenet, J. C., Auguste, N., Dauphinot, V., El Haouari, H., Navez, M., Dorey, J. M., Krolak-Salmon, P., Laurent, B., Rouch, I., & LACMé Group (2017). Can Musical or Painting Interventions Improve Chronic Pain, Mood, Quality of Life, and Cognition in Patients with Mild Alzheimer's Disease? Evidence from a Randomized Controlled Trial. *Journal of Alzheimer's disease : JAD*, 60(2), 663–677.

Qiu, H. Z., Ye, Z. J., Liang, M. Z., Huang, Y. Q., Liu, W., & Lu, Z. D. (2017). Effect of an art brut therapy program called go beyond the schizophrenia (GBTS) on prison inmates with

08-10 July, 2022

Zurich, Switzerland

schizophrenia in mainland China—A randomized, longitudinal, and controlled trial. *Clinical psychology & psychotherapy*, 24(5), 1069-1078.

Rajabi, M. (2022). A Critique on the Book "Immanuel Kant". *Critical Studies in Texts & Programs of Human Sciences and Council for the Study of Humanities Texts and Books*, 21(11), 131-147.

Robb, M. A. (2022). *Group Art Therapy: Practice and Research*. Routledge.

Rubin, J. A. (1986). From psychopathology to psychotherapy through art expression: A focus on Hans Prinzhorn and others. *Art Therapy*, 3(1), 27-33.

Rubin, J. A. (1999). *Art therapy: An introduction*. Psychology Press.

Schneider, J. A. (2010). From Freud's dream-work to Bion's work of dreaming: The changing conception of dreaming in psychoanalytic theory. *The International Journal of Psychoanalysis*, 91(3), 521-540.

Sutarjo, J. (2023). Painting as a Means of Art Therapy for Children—Children with Autism Spectrum Disorder (Case Study in Kaliwungu Kudus State Extraordinary School). *Jurnal Indonesia Sosial Sains*, 4(02), 97-105.

Vassil'evich, B. V. (2016). THE METAPHYSICAL DIMENSION OF THE ART OF SURREALISM. *VESTNIK SLAVIANSKIKH KULTUR-BULLETIN OF SLAVIC CULTURES-SCIENTIFIC AND INFORMATIONAL JOURNAL*, (39), 171-188.

Xu, J., Helen, J., Noorbhai, L., Patel, A., & Li, A. (2022). Virtual mindfulness interventions to promote well-being in adults: A mixed-methods systematic review April 18, 2021. *Journal of affective disorders*.

Yuan, Z., Li, B., Ye, X., & Zhu, X. (2021). Systematic review and meta-analysis of the effects of group painting therapy on the negative emotions of depressed adolescent patients. *Annals of palliative medicine*, 10(10), 10744–10755.