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CASE REVIEW

A Brief Exploratory Review of Mandala Drawing & Coloring in Promoting Mental Health/Well-being among Young Children during the Covid-19 Pandemic Lockdown

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ABSTRACT

As the Coronavirus Disease-2019 (Covid-19 for short) pandemic continues ravaging throughout the world, no country is spared from the catastrophic pestilence, and no one regardless of age, gender, race, nationality, religion, socio-economic status, occupation, health status ... can avoid or be exempted from it. Despite the stringent measures and strong advisories issued by the governments of respective countries, the number of Covid-19 cases continues to climb drastically instilling fear in the heart of everyone. As a result, schools, colleges and universities have to shut down, factories and offices come to almost a standstill, tourist attraction places are completely empty, tourism and recreation come almost to a complete halt due to entry restrictions imposed ... the list of mandatory do's and don'ts increases, affecting the mental well-being of the people and driving many of them (both adults as well as youths and children) to stress, anxiety and depression. The author's aim of this paper is to provide a brief exploratory review on the use of mandala drawing and coloring as a diagnostic-therapeutic approach to promote mental health or well-being in young children.

Keywords: Covid-19 Pandemic, Mandala Drawing and Coloring, Mental Health/Well-Being

1. INTRODUCTION

The last time the world experienced a "major global outbreak of disease world was the "swine flu" pandemic (also known as H1N1) in 2009. That was the first pandemic in the twenty-first century (Rogers, 2020). The disease was first detected in Mexico in February 2009 and spread rapidly to the United States by April in the same year. Soon other parts of the world were also infected by people traveling out of Mexico and the United States. In June of that year, the World Health Organization declared the outbreak a pandemic.

Ten years later, in 2019, in a wet market in the city of Wuhan in China, a new pandemic was about to occur. A young Chinese doctor¹ noticed a new contagious disease was infecting many people and alerted his colleagues about it. However, the local authorities chose to hush up the doctor and even threatened him with jail. The failure to contain the spread of the unknown disease within the city of Wuhan soon ravaged across the Chinese mainland and then spread throughout the world. Many people across the world lost their lives to what is now known as Covid-19 pandemic. Authorities in different countries are still struggling to contain its spread through implementation of stringent measures (e.g., safe-distancing, frequent use of hand sanitizer, wearing a protective mask, serving quarantine or home-stay notice, implementing of rules to limit social gathering, traveling or movement from place to place, working from home, online learning, mandatory vaccination against Covid-19 infection, etc.). Despite all the advisories or measures being put in place, the success to reduce the number of Covid-19 cases is often short-lived.

As the Covid-19 pandemic continues to spread from country to country even when their borders are officially closed, more and more people are continuously infected and millions of them have also died from it. Research institutes and pharmaceutical companies have also begun to rush into developing vaccines to fight against this contagious coronavirus. However, Covid-19 continues to mutate over time and now there are many other variants or subtypes of Covid-19. As a result, more frequent lockdowns (short- or long-term) or curfews as well as other mandatory restrictions are implemented to slow down the spread of the pandemic, but such measures have also disrupted the activities of daily routine of many people.

Among the most affected are children whose studies and school attendance have also become erratic/irregular or been very much affected (OECD, 2020). Stress and anxiety become a common experience (OECD, 2020) due to school closures, and more so for students who are preparing for national examinations. Depression may also become a consequence of stress and anxiety. Mental well-being becomes an important issue of concern for this group of young individuals as well as others (Merckx et al., 2021; Meredith, 2021; Nava, Varner, & Beier, 2021). For instance, the Little Hoover Commission (LHC; 2021), the independent movement watchdog in the state of California, USA, concluded its investigation into the impact of Covid-19 on children's mental health even before the pandemic began. In its Report #262, "[T]he pandemic created a perfect storm of stress, anxiety, and trauma that amplified preexisting challenges to young people's mental health. California now faces a looming tsunami of children's mental health needs. The pandemic will likely impact some young people's mental well-being for years to come" (LHC, 2021, para. 2).

As reported in the Los Angeles Daily News, "[E]scalating rates of suicide and self-harm, now combines with stress, anxiety, and trauma from the pandemic, have resulted in what experts call a looming tsunami of unmet need among youth" (Nava et al., 2021). In Europe (e.g., Araújo et al., 2021; Caffè et al., 2020; Cowie & Myers, 2020) and elsewhere in the east, i.e., East and West Asia as well as South-East Asia (e.g., Kumar et al., 2021; Lay, 2021; Wang et al., 2021), similar experiences due to the impact of Covid-19 pandemic on the mental health of adults, adolescents and children have been reported, too. Similarly, Australia and New Zealand also share the same challenging problems, too (e.g., Flack et al., 2020; Meiring et al., 2021; Tan et al., 2020).

Among the several approaches (e.g., online counseling and pediatric psychiatric consultation) used by counselors, teachers and therapists to help young children to manage their stress and anxiety as well as depression (what is termed as the SAD syndrome comprising of Stress-Anxiety-Depression as shown in Figure 1, especially during the Covid-19 pandemic lockdown period, is the use of mandala drawing and coloring. In this paper, this author is interested in exploring the use of mandala drawing

¹ Dr. Li [Wenliang] warned in an online chat group on WeChat that he had seen a report showing positive test results of SARS for 7 patients. However, he did not formally report the outbreak to the authorities. Dr. Zhang Jixian is considered the first doctor to report the novel coronavirus before its outbreak" (Li, Cui, & Zhang, 2020, p. 782).

and coloring as a diagnostic-therapeutic tool to help young children struggling to cope with stress and anxiety during the mandatory lockdown and movement restriction as reported in the mass media.

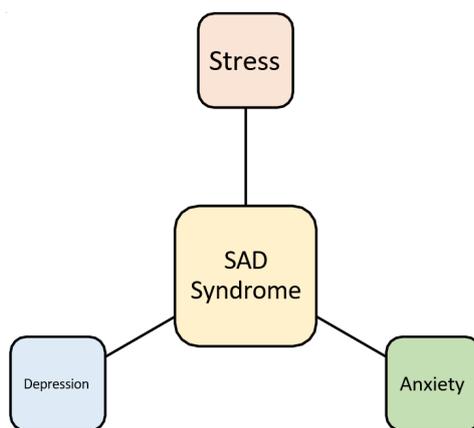


Figure 1. The SAD Syndrome

2. WHAT IS MANDALA?

A mandala, whose Sanskrit word which literally means “a circle”, is a geometric configuration of symbols, or as described by Noor et al. (2017) as “[M]andalas (plural) are circular geometric shapes considered to be universal symbols for spiritual growth or a form of visual meditation” (p. 904). It represents a symbol of an ideal universe or it also symbolizes the womb, motherhood, and nurturing. In most cultures, the mandala is a symbol of unity, wholeness, and oneness. According to the Merriam- Webster Online Dictionary (2021), a mandala is defined as follows: (1) “a Hindu or Buddhist graphic symbol of the universe; specifically, a circle enclosing a square with a deity on each side that is used chiefly as an aid to meditation”; and (2) “a graphic and often symbolic pattern usually in the form of a circle divided into four separate sections or bearing a multiple projection of an image” (para. 1-2). Figure 2 (Kara-Kotsya, n.d.) below shows nine different mandalas.



Figure 2. Mandalas

In several Eastern spiritual traditions and religions (e.g., Buddhism, Hinduism, Jainism, Shintoism and Taoism), mandalas may be employed for focusing attention of practitioners and adepts, as a spiritual guidance tool, for establishing a sacred space and as an aid to meditation and trance induction (Buchalter, 2012; Ratcliffe, 1992). It is used as a map representing deities, or especially in the case of Shintoism, paradises, kami² or actual shrines (Tanabe, 2001). A mandala generally represents the spiritual journey, starting from outside to the inner core, through layers. In Taoism, the mandala is

² The word *kami*, in Japanese, is often referring to mean "gods", though the concept is more involved than that) are the spirits, phenomena or "holy powers" that are venerated in the religion of Shinto (Tamura, 2000).

expressed in terms of yin-and-yang interaction that constitutes a circular design comprised of two halves with black and white division (Fang, 2012). This Taoist concept creates a contrast within the circular design to signify two opposing forces to bring a complimentary and harmonious nature of the world (Fodor, 1991).

Findings from several studies have indicated the benefits of mandala drawing tasks (Liu et al., 2020; Smitheman-Brown & Church, 1996) and coloring activities (Carsley et al., 2015; Curry & Kasser, 2005), such as (i) improvement in the attention span and decision-making as well as a reduction in impulsive behaviors in children with attention deficit-hyperactivity disorder (ADHD) (Smitheman-Brown & Church, 1996); (ii) improvement in social interaction skills in an individual with autism spectrum disorder (ASD) (Kim & Ong, 2018); and (iii) a reduction in anxiety among pregnant women in their third trimester before delivery through mandala drawing and coloring (Amelia et al., 2020) and university students in their studies through mandala coloring (Noor et al., 2017).

Closer to mandala drawing and coloring is the use of various circle stencil tools and shaking and looking into a kaleidoscope to see colorful circular patterns being formed. These tools can be used in pre-mandala creating activities and are certainly useful in getting young children to be excited and interested in mandala drawing and/or coloring activities.

2.1 Circle Stencil Tools: Creating Mandalas

According to Oliver (n.d.), mandalas can be created or developed in many ways using basic tools such as a sheet of paper and a pencil. If mandalas with mostly geometrical forms and symbols are preferred, a drawer will need a good pair of compasses (Figure 3) (Pikepictur, n.d.) and a large set square (Figure 4) (Kopirin, n.d.) to cover the full width of an A4 paper.



Figure 3. A Pair of Compasses

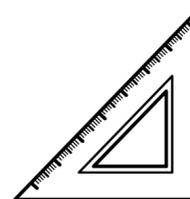


Figure 4. A Set Square

Mandalas can be designed and/or edited on a computer or laptop with the CorelDraw or PhotoImpact software. However, Oliver (n.d.) pointed out that many mandalas are often devised on paper: “The sketches are then scanned in and turned into vector graphics ... continue to work on them on the computer and generate the PDF templates for the website” (In FAQ, para. 2).

To create a mandala, Oliver (n.d.) recommended it to start with a big circle. It constitutes the outer boundary. Two further shapes are added inside the big circle (e.g., a square and a circle), making sure that the lines of both cross each other. “A mandala has a number of regular segmentations with enough points of intersection that can be used as a guideline for further additions” (Tölge, n.d.). Figures 5, 6 and 7 are examples of mandalas with their respective intersections of points.

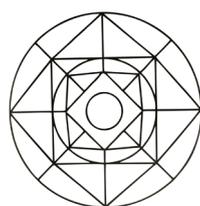


Figure 5

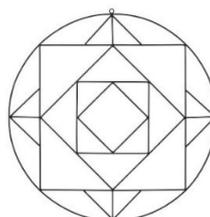


Figure 6

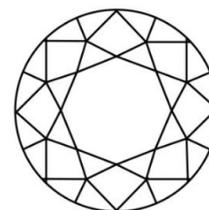


Figure 7

All the drawer has to do is to use his/her imagination in designing a mandala. In fact, there are no limits when refining the design of a mandala. The drawer can add more forms (e.g., triangles, squares, pentagons, ellipses, circles, lines) to the mandala (Tölge, n.d.). Besides the standard stencils one can use to create or design mandalas, there are also many everyday objects (e.g., boxes, baking molds, coins, compact discs) that anyone can use as stencils, too, to create mandalas of limitless design.

2.2 Kaleidoscope: A Tool of Creating Mandalas

Another interesting tool that one can use to introduce mandalas is the kaleidoscope (Figure 8) (The Toy Store, 2023).



Figure 8. A Kaleidoscope

The word kaleidoscope, first coined by its Scottish inventor Sir David Brewster (b.1781-d.1868) in his book on *The Kaleidoscope: Its History, Theory, and Construction with Its Application to the Fine and Useful Arts* published by John Murray in 1858, is derived from the Greek words, kalos (i.e., “beautiful, beauty”), eidos (i.e., “that which is seen: form, shape”), and skopeō (i.e., “to look to, to examine”). Hence, in short, the kaleidoscope to Brewster (1858) means an observation of beautiful forms/images [Figures 9 (Crayon, n.d.), Figure 10 (Fine Art America, n.d.) and Figure 11 (Redbubble, n.d.)] for examples of kaleidoscope images).



Figure 9



Figure 10

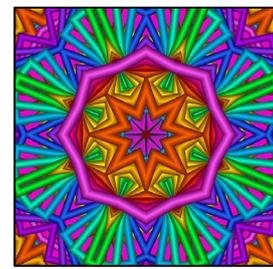


Figure 11

The kaleidoscope was first published in the patent³ that was granted on July 10, 1817. The kaleidoscope is an optical tool “with two or more reflecting surfaces (usually, mirrors) tilted to each other at an angle, so that one or more (parts of) objects on one end of the mirrors are seen as a regular symmetrical pattern when viewed from the other end, due to repeated reflection” (Wikipedia Contributors, 2021, para. 2).

The beautiful kaleidoscope images will certainly capture the imagination of any child who takes a peek into the optical tool. These magnificent forms will captivate the child's mind leaving him/her in awe and wonder.

³ Repertory of Patent Inventions, and Other Discoveries and Improvements in Arts, Manufactures, and Agriculture, The (1817, July 10). Selected from the Philosophical Transactions and Scientific Journal of all Nations. Intelligence Relation to the Useful Arts, Proceeding of Learned Societies and Notices of All Patents Granted for Inventions. London, UK: Repertory Office, Hatton Garden. London, T. London, T. and G. Underwood [etc.], Various Years.

3. MANDALA AS A DIAGNOSTIC-THERAPEUTIC TOOL

Dr Carl Gustav Jung (b.1875-d.1961), a Swiss psychiatrist and psychoanalyst who founded analytical psychology, has been credited for bringing a Western version of the mandala to psychotherapy. Jung (1959) saw the mandala as the psychic nucleus, which constitutes the center of one's personality from which the "Self" develops. It is also a reflection of the process of individuation⁴ that can transform one's psyche by bringing the personal and collective unconscious into conscious (Miller, 2005). In addition, Jung (1959) also saw the mandala as a space for the unconscious to surface through archetypal symbols. Today, Jungian mandalas are used in art psychotherapy (Miller, 2005; Slegelis, 1987).

Joan Kellogg, an art therapist and researcher, who worked at the University of Maryland at a time when many well-known therapists there were conducting groundbreaking psychological research, developed the Mandala Assessment Research Instrument (MARI) – a Jungian instrument that is based on symbols and colors that are chosen intuitively (Kellogg, 1991; Takei, 2015). When displayed on the developmental template of the Great Round of the Mandala, "these symbols and colors reveal a visual picture of one's psyche" (Takei, 2015, p. 41), which develops through 12 stages encompassing different developmental tasks. Symbols surface when an individual experiences unconscious conflict related to the corresponding stage (Kellogg, 1991).

In practice, mandala drawing and coloring have shown the therapeutic usefulness in providing clients the following benefits (Fincher, 1991; Prendes, 2015) in terms of: (i) relaxation, self-soothing and meditation (Curry & Kasser, 2005; DeLue, 1999); (ii) self-insight and individuation (Bonny & Kellogg, 1976; Jung, 1959; Kellogg & DiLeo, 1981); and (iii) healing and self-expression (Henderson et al, 2011; Schrade et al., 2011). Prendes (2015) has provided a brief description for each of these below.

(i) Relaxation, Self-Soothing and Meditation:

Creating or designing mandalas by young children or coloring structured mandalas that are provided by a professional is one useful approach to promoting relaxation and/or encouraging meditation. "Mandalas are now perceived as 'aids' or 'tools to meditation' and designated as 'meditation diagrams' and 'meditational art'" (Bühnemann, 2017, p. 263). The main goal is to bring about relief of anxiety symptoms. Examples of research studies include mandala making to elicit a parasympathetic response in a group of children, age 5-10 (DeLue, 1999), and coloring structured mandalas and plaid forms have been found to be more effective than free-form drawing in reducing anxiety symptoms (Curry & Kasser, 2005).

(ii) Toward Self-Insight and Individuation:

Mandalas, whether they are drawn by clients or pre-drawn ones, can help a client to delve into one's insight and the individuation process of becoming aware of oneself, of one's make-up, and the way to discover one's true, inner self. Mandala drawing and coloring can provide a client a better understanding of his/herself through insightfulness and individuation. However, this author feels that this second approach is more beneficial to adolescents and adults who are more verbal and cognitively aware rather than young children, who are still in the process of growing up or maturing and have yet to acquire life experiences. The main goal is to interpret the mandala making and/or coloring in raising a client's awareness or mindfulness. Examples of research studies include the qualitative case studies of mandalas drawn or colored by individuals (Jung, 1959; Bonny & Kellogg, 1976); studies on use of color, shape, space and number in mandalas (Jung, 1959; Kellogg & DiLeo, 1981); and increase measures of self-awareness and psychological well-being in a population of college students (Pisarik & Larson, 2011).

⁴ Individuation is believed to have a holistic healing effect on the person, both mentally and physically.

(iii) For Self-Healing and Self-Expression:

Client-drawn mandalas are used in promoting unconscious self-healing and also for self-expression of one's inner feelings. This approach is useful for those who are "victims of trauma, individuals with developmental disabilities or cognitive impairments, people with difficulty in verbalizing their feelings" (Prendes, 2015, p. 1). Through mandala drawing and/or coloring, a client sets the pace of unconscious self-healing (Prendes, 2015). The main goal is to provide an individual with the opportunity to process his/her trauma, and this can those who have experienced or are still suffering from stress, anxiety and depression.

Through mandala drawing and/or coloring, young children can talk or share about their thoughts and/or feelings spontaneously (rather than deliberately and becoming too conscious for comfort in sharing thoughts and feelings), and this is self-expression. In this way, the focus is on bringing an order to the psychic confusion or chaos. Examples of research studies include a significant reduction in hypertension during mandala-making in an attempt to process interpersonal conflict in adults with intellectual disability (Schrade et al., 2011); mandala-drawing was found to have a greater impact than writing on symptoms of trauma (Henderson et al., 2011).

4. CONCLUSION

Today, many medical as well as healthcare and allied professionals (e.g., counselors, psychologists, therapists, special educators) are more convinced that through mandala drawing and/or coloring, fine motor movements of the hands are engaged, and this provides numerous benefits on stress reduction. The key reason behind the enhanced therapeutic effects of mandala drawing and/or coloring is the application of repetitions of fine motor movement that provides an individual the ability to stay focused on the activity at hand while subconsciously leading him/her to mindfulness or 'being in the present moment' (Potash et al., 2016). What the end result that one wishes to achieve from the mandala therapy, hopefully, would be "positive physiological changes and a relaxation effect within the body" (Olesen, 2013).

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Author has declared that no competing interests exist.

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