EFFICACY OF MANDALA CREATION ON ANXIETY, MOOD AND SELF-HEALING<br>MS SHETH ASHMI<br>St Andrew's College,<br>University of Mumbai, India


#### Abstract

The study examined the effects of creation of mandalas on reducing anxiety, enhancing mood and as a self-healing tool in young adults. 40 undergraduate students were solicited for voluntary participation through announcements in several sections of arts courses. The State Trait Anxiety Inventory (Form Y-1) and Profile of Mood States Abbreviated Questionnaire were used to measure participants' anxiety and mood states respectively. After inducing a negative mood by instructing the participants to list three stressful events currently on their minds, they were given papers with printed circular outlines and wax crayons, and instructed to create a free drawing within the circular outline of the mandala. The STAI and POMS were administered at baseline, after the negative mood induction task, and after the art activity. A Self-Healing Questionnaire was also given after the art activity that helped the participants assess their inner experiences and thought processes, and whether they would like to continue making art as a selfhealing tool. Results support the hypothesis that creating a mandala reduces anxiety to a significant degree and enhances mood in young adults. The findings also indicate that mandala creation acts as a self-healing tool for young adults.


## INTRODUCTION

The National Mental Health Survey of India (NMHS), 2015-16, indicates that anxiety disorders affect about 3.9\% of the Indian adult population and mood related disorders affect around $5.8 \%$ of adults in India. The study also indicates that the prevalence of mood disorders (5.6\%) and neurotic or stress related disorders ( $6.93 \%$ ) was nearly $2-3$ times more in urban metros. While effective treatment and intervention cannot be made available to all those affected by these disorders, some self-healing tools might help. Several self-healing tools are adopted by people suffering from stress-related disorders including PTSD to those suffering from insomnia, depression, and other mood-related disorders. Some of thes include meditation and yoga, guided imagery and self-expression through art.
"Mandala" is a Hindi word derived from Sanskrit meaning "circle" (more specifically, a magic circle; Singer, 1994) or center. Jung considered the mandala to be an archetypal symbol representing the Self, the center of personality striving for wholeness in the individuation process). According to Gestalt psychology, simple, closed forms, such as circles, are more quickly perceived and recognized as meaningful (Kohler, 1992). Circles are registered by the eye and passed directly to the visual cortex without intermediate processing (Horowitz, 1983). Because circles look the same whether right side up or turned upside down, the brain does not have to do intermediate processing to recognize a circle as it does when identifying a square or some other form that has been rotated. This ease of identification gives circles an advantage over other forms competing for our full attention. The psychological order created by drawing a circular mandala extends outward to help us orient ourselves within our present life situation (Wertheimer, 1959).

## REVIEW OF LITERATURE

The use of mandalas as a therapeutic tool was first mentioned by Carl Jung. As per Jung (1972, p.3)
"the severe pattern imposed by a circular image compensates the disorder and confusion of the psychic state -namely, through the construction of a central point to which everything is related, or by a concentric arrangement of the disordered multiplicity and of contradictory and irreconcilable elements."
During Jung's many years as a psychotherapist, mandalas were often drawn, painted, modelled, or danced by his patients as well, usually in times of crisis or transformation (Jung, 1963). Jung's ideas have greatly influenced art therapy as he believed the image itself was central, rather than a clue, or symbol to be deciphered: "To paint what we see before us is a different art from painting what we see within" (1954, p. 253). Jung's concept of "collective unconscious" as a universal, cross-culturally shared symbolic language is often cherished by art therapists; this includes the mandala. This symbol has been adopted by some art therapists as a structure to contain personality chaos or disintegration.

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Sandmire D., Gorham S., Rankin N., and Grimm D., (2012) examined the psychological effects of art-making on undergraduate students coping with stress and anxiety. The findings of the study, which included mandala design as one of the activities suggest that a brief period of art making can significantly reduce a person's state of anxiety.
Van der Vennet R. \& Serice S. (2012) replicated Curry and Kasser's (2005) research that tested whether colouring a mandala would reduce anxiety. The results of their study, conducted on 50 psychology students, were similar to those of Curry and Kasser (2005) that participants with an anxious mood were able to significantly reduce their anxiety by colouring a pre-drawn mandala and reduced their anxiety to a greater degree than participants who coloured free form on a blank sheet of paper or those who coloured a plaid design.
Babouchkina A. \& Robbins S. (2015) examined whether the creation of mandala has specific efficacy for reducing negative mood states on 67 adult participants. The results of this study demonstrate that the circular shape of the mandala serves as an "active ingredient" in mood enhancement.
Jung himself practiced mandala-making for self-healing during a trying time in his life and for silencing his chaotic inner dialogue (Bair, 2003).
Van Lith T. (2015) examined the intrinsic benefits of art making in people with mental illness. The data collection involved interviews with each of the 12 participants at 6 -month intervals over the period of 1 year. The research suggests that art produced internal shifts in the recovery process through expression, resolving inner conflicts, restoration, and gradual attainment of a new authentic self. The participants' accounts indicated that art making moved them toward a deep level of concentration, and as in homeostasis, art making was used to maintain internal equilibrium by reflexively adjusting to a changing situation.

## Hypothesis:

Hi) Creation of mandalas helps reduce anxiety
Hii) Creation of mandalas enhance mood,
Hiii) Creation of mandalas acts as a tool for self-healing in young adults.

## METHODOLOGY

## Instruments

The anxiety and mood levels of the participants at base, pre- (post negative mood induction task) and post- art making were administered using the State Trait Anxiety Inventory (STAI) Form Y-1 (Spielberger, Gorsuch, \& Lushene, 1970) and the Profile of Mood States (POMS) Abbreviated Questionnaire (Grove J.R., \& Prapavessis H., 1992). A self-healing questionnaire edited and adapted from Art-based Intervention Questionnaire (Snir \& Regev, 2013) was given post art making activity to record the participants' inner experiences and thought processes while creating the artwork and whether they would like to use art making as a self-healing tool.
Participants
40 undergraduate students attending an arts college between the ages 17-24 ( $\mathrm{F}-30, \mathrm{M}-10$ ) were solicited for voluntary participation through announcements in several sections of arts courses. Students having anxiety disorders or other mental illness or those under medication for any kind of mood/thought disorder were excluded from research.
Procedure
The participants were first informed to read and sign the Consent and Artwork Release forms. They were then instructed to fill out the two questionnaires, the STAI Form Y-1 and the POMS. This was followed by a negative mood induction task, wherein the subjects were asked to list down three stressful events currently on their minds and to elaborate in short on the event most negatively weighing on their mind in 5-7 sentences. They were asked to fill out the STAI and POMS questionnaires again to document that they had comparably negative mood prior to the art activity. The participants were provided with an A4 size paper with printed circular outlines and Faber Castell® 12 Shade Jumbo wax crayons and instructed to: "Create a free drawing inside the circular outline of a mandala." They were provided 20 minutes to work on the art activity and were informed that there is no right or wrong way to complete the artwork; to focus on process, not the product; and that they do not need to finish the entire artwork in the stipulated time period. Post the mandala creation activity, participants were given the STAI, POMS questionnaires again along with the Self-Healing Questionnaire. The total duration of the procedure was approximately one hour.

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RESULTS

|  |  | Paired Differences |  |  |  |  | t | df | Sig. (2-tailed) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Mean | Std. Deviation | Std. Error Mean | $95 \%$ Confidence Interval of the Difference |  |  |  |  |
|  |  | Lower |  |  | Upper |  |  |  |
| Pair 1 | Pre mandala activity TMD Score-Post mandala acitivity TMD Score |  | 27.225 | 28.428 | 4.495 | 18.133 | 36.317 | 6.057 | 39 | . 000 |


|  |  | Paired Differences |  |  |  |  | t | df | Sig. (2-tailed) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Mean | Std. Deviation | Std. Error Mean | $95 \%$ Confidence Interval of the Difference |  |  |  |  |
|  |  | Lower |  |  | Upper |  |  |  |
| Pair 1 | Pre mandala activity STAI score-Post mandala activity STAI score |  | 14.050 | 11.640 | 1.840 | 10.327 | 17.773 | 7.634 | 39 | . 000 |

Data were analysed using SPSS. Table 1 summarizes the mean scores and standard deviations for the pre- and postmandala activity scores on the STAI and the POMS. Paired $t$ tests were used to test significance (Table 2). Table 2 summarizes the results of the paired $t$ tests to compare the mean pre- and post- test scores.

Table 1. Descriptive Statistics for the POMS and STAI

|  |  | Mean | Standard Deviation (S.D.) |
| :---: | :---: | :---: | :---: |
| N Valid 40 | STAI |  |  |
|  | activity score Post-mandala activity score | 36.17 | 11.206 |
|  |  |  |  |
|  | ActivityTMD Score Post-mandala activity TMD Score | $20.13$ | $\begin{aligned} & 34.57 \\ & 23.23 \end{aligned}$ |

Table 2. Paired test Results of STAI and POMS
Table 3 indicates the responses given by the participants to each of the questions in the self healing questionnaire. There were three options to each question, viz., Yes, No, and Not Sure.

Self-Healing Questionnaire responses


Table 3 Participants' responses to self-healing questionnaire

## INTERPRETATION \& DISCUSSION

It can be interpreted from the research findings that mandala creation can significantly reduce state-related anxiety levels in young adults, as measured by the STAI. The negative mood induction task ensured the prevalence of a comparatively negative mood prior to the art activity. Thus, the results of the study support the hypothesis and corroborate with studies mentioned earlier. Therefore, it can be said that Hi and Hii have been proved correct.
It can be inferred from the results that creating mandalas helps enhance mood in young adults. Participants showed decrease in subscales measuring Tension, Depression, Anger, Fatigue and Confusion and an increase in those measuring Esteem Related Affect and Vigour, with a significant decrease in scales measuring Anger and Depression. Although there may also be other influences for the decrease, the findings clearly corroborate with Babouchkina \& Robbins' (2015) findings that making art inside a circular boundary of a mandala has specific efficacy for improving mood state. Table 4 shows examples of free form mandalas created by some participants.


Table 4 Examples of free from mandalas created by some participants

The results also support Helen Bonny and Joan Kellogg's (Kellogg, Mac Rae, Bonny and DiLeo, 1977) findings that concentrating on the making of a circular design immediately following intense experiences gave clients a needed opportunity to unwind (p.126), as found from the STAI scores, TMD Scores as well as the responses in the SelfHealing Questionnaire after the art activity which was followed immediately after the listing the stressful events. 92\% participants agreed that they felt completely involved in the process while working on their artwork. This goes with Van Lith's (2015) observation that art making moved the participants toward a deep level of concentration. It appears that the body's physiology responds by quieting when the mind is focused on the circular form (DeLue., 1999). 95\% of the participants found the art activity pleasing and calming.
The mandala allows for psychological integration of conscious and unconscious, while promoting meaningful selfreflection (Jung, 1959). The research results reflect this idea as $62 \%$ of the participants agreed that they learned about themselves in the art process. Most of the participants also wished to continue creating art as a self-healing tool, as their responses indicated in the Self-Healing Questionnaire. This confirms the third hypothesis which stated that creation of mandalas acts as a tool for self-healing in young adults. Thus, the results successfully confirm the hypothesis that creation of mandalas helps reduce anxiety, enhance mood and act as a tool for self-healing in young adults.
However, the study has a number of limitations as well. As sample size is relatively small ( $\mathrm{N}-40$ ), the study can be referred as a pilot study and reliability and validity of the findings warrant further investigation. Also, the study offered only one medium, wax crayons, for creating the mandalas. Further studies can incorporate various other media such as water colour, tempera paint, markers, and pastels of varying number of shades and sizes. The fluidity/rigidity of the other mediums can have a considerable impact on the anxiety and mood scores.
Lastly, the research was successful in -

- creating awareness of art as a therapeutic tool among young adults.
- spurred curiosity in the young minds regarding the power of mandala and art.
- received positive responses from the participants post the study procedure.


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