

Empirical Study on the Healing Nature of Mandalas

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Mandalas were first used in therapy by Carl Jung, who found that the act of drawing mandalas had a calming effect on patients while at the same time facilitating psychic integration. There is a scarcity of controlled empirical studies of the healing impact of mandalas on mental health. Based on the efficacy of James Pennebaker's written disclosure paradigm in promoting mental well-being (Pennebaker, 1997a, 1997b), the purpose of our study was to examine the benefits for those suffering from post traumatic stress disorder (PTSD) of processing traumatic events through the creation of mandalas. Benefits to participants were measured in terms of changes in the variables of PTSD symptoms, depressive symptoms, anxiety, spiritual meaning, and the frequency of physical symptoms and illness. Relative to those in the control condition, individuals assigned to the experimental mandala-creation group reported greater decreases in symptoms of trauma at the 1-month follow up. There were no other statistically significant outcome differences. Alternative modes of processing traumatic events (e.g., visually symbolically) may serve individuals who are either reluctant or unable to write about their experiences.

Keywords: mandala, PTSD, written disclosure, psychological health, creative expression

The expression and disclosure of previously experienced traumatic events is associated with better subsequent physical and mental health (Esterling, L'Abate, Murray, & Pennebaker, 1999; Smyth & Helm, 2003). Extensive attention has been given to the efficacy of written expression of traumatic events in promoting physical and psychological well-being, and various studies have resulted in a body of research supporting a written disclosure paradigm (see Pennebaker, 1997a, 1997b for a review). According to this paradigm set forth by James Pennebaker, writing about traumatic or stressful events in an emotional way for as little as 15 minutes over 3 to 4 consecutive days brings about improvements in physical and mental health (Pennebaker & Seagal, 1999).

The principle of therapeutic exposure posits that repeated exposure to aversive conditioned stimuli leads to the extinguishment of negative emotions associated with such stimuli, resulting in beneficial outcomes (Foa & Rothbaum, 1998). Some researchers contend that written disclosure serves as a context in which individuals are repeatedly exposed to traumatic memories (i.e., exposure to aversive stimuli and the negative emotions associated with it), which allows for the

gradual extinction of negative emotional associations across sessions (Kloss & Lisman, 2002; Pennebaker, 1997b; Sloan & Marx, 2004a, 2004b). This is theorized to be one of the mechanisms underlying the overall effectiveness of the written disclosure paradigm.

Another theory regarding the effectiveness of written disclosure on physical and mental health has to do with the cognitive changes associated with this type of writing. Research has suggested (e.g., Esterling et al., 1999; Park & Blumberg, 2002; Pennebaker, 1997b) that the formation of a narrative incorporating the details of a traumatic event with the thoughts and emotions surrounding the experience can facilitate a cognitive integration of the experience. This cognitive restructuring serves to resolve the traumatic experience, as well as bring a sense of meaning to the event as insights are gained through the process of writing. Once a meaningful and integrated narrative is formed, it is hypothesized that the traumatic event can then be summarized, stored, and allowed to become a nonthreatening memory rather than a ghost that chronically haunts consciousness, subsequently leading to a decrease in psychological distress (Smyth, True, & Souto, 2001).

Although the innovative work of Pennebaker and other researchers has supported the utility of the written disclosure paradigm and the numerous benefits associated with the disclosure of trauma, the written disclosure paradigm has been found to be ineffective among individuals with disordered cognitive processes or relatively severe depression (Gidron, Peri, Connolly, & Shalev, 1996; Stroebe, Stroebe, Schut, Zech, E., & van den Bout, 2002). Individuals who have difficulties with cognitive processing (e.g., those with schizophrenia, autism, learning disorders, mental retardation, or dementia) often lack the cognitive faculties necessary to form a cohesive written narrative. There are also individuals who lack a strong enough command of written language to engage in a written disclosure task, such as children and those who are illiterate or undereducated. And, of course, there are those who simply prefer visual-spatial exercises and experiences to verbal ones. Disclosure of trauma by such individuals might be more effec-

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tively accomplished through a creative artistic task in which one can visually symbolically depict a traumatic event.

The vast majority of written disclosure studies involve only written expression; however, Judith Pizarro (2004) performed a recent study that examined whether art therapy was as effective as writing therapy in improving the outcomes of psychological and health measures. Pizarro sampled 41 participants using two experimental groups (expressive art therapy or writing therapy) and a control art condition. Consistent with Pennebaker's findings, there was a significant decrease in social dysfunction within the writing group, however, the participants in the art groups did not have similar health benefits. Although the art groups did show a greater enjoyment of the experience, the researcher surmised, "generating art. . . may not provide sufficient cognitive organization, and, therefore may not be able to provide the same positive health benefits" as writing therapy (Pizarro, p. 10). A combination of the two was suggested in which writing could heal while art could make the process more enjoyable, thus increasing therapy compliance.

Rather than completely dismissing art therapy as an effective means of processing trauma, an artistic task that lends itself particularly well to the symbolic expression and disclosure of a traumatic event is mandala drawing. A mandala, used as a meditative tool in various religions but most famously in Tibetan Buddhist, is a circular design that is thought to promote psychological healing and integration when created by an individual. The use of the mandala as a therapeutic tool was first espoused by Carl Jung, who suggested that the act of drawing mandalas had a calming and healing effect on its creator while at the same time facilitating psychic integration and personal meaning in life (Jung, 1973), which serves as the rationale for using them for traumatic disclosure tasks. The mandala functions as a symbolic representation of emotionally laden and conflicting material, yet at the same time provides a sense of order and integration to this material. In this manner, drawing a mandala is similar to a written disclosure in that it provides cognitive organization to complex emotional experiences.

Art psychotherapists use the mandala as a basic tool for self-awareness, self-expression, conflict resolution, and healing (Slegelis, 1987). Within the realm of art therapy, the mandala generally refers to any art form that is executed within a circular context. Although most research into the healing aspects of mandala drawing has been limited to case studies and clinical observations (Couch, 1997; Cox & Cohen, 2000; Smitherman-Brown & Church, 1996), these studies argue for using mandalas therapeutically within numerous populations and settings, including schizophrenia and psychotic disorders, dissociative disorders (Cox & Cohen, 2000), attention-deficit/hyperactivity disorder (Smitherman-Brown & Church, 1996), and dementia patients (Couch, 1997). Cox and Cohen note that, particularly for individuals who have been shamed into secrecy by childhood abusers and find they are unable to discuss sensitive information regarding abuse, illustrative coding of traumatic events in drawings allows clients the ability to maintain secrecy (both from their therapists and from themselves), while at the same time symbolically communicating and resolving traumatic material (Cohen & Cox, 1989, 1995).

To date, empirical research on the use of mandalas as a therapeutic tool is limited. In one of the first attempts undertaken to examine scientifically Jung's theory that mandala creation promotes psychological health, Slegelis (1987) found that those who

drew inside a circle experienced more positive affect than those who drew within a square. Although the results of the Slegelis study lend support to the argument that mandalas have calming and healing properties, the experimental design and data were limited and inhibit the inferences that can be drawn from the results.

A recent study by Curry and Kasser (2005) evaluated the effectiveness of mandala drawing in the reduction of anxiety. Anxiety levels were measured before and after an anxiety induction exercise, and after one of three coloring conditions (free-form, mandala-drawing, or plaid-form). Decreases in anxiety were experienced for those in the mandala and plaid-form conditions. Although these results show potential, the design of the research used predrawn mandala forms and predrawn plaid patterns, so the results could be interpreted in various ways, such as the calming effects of art therapy in general versus the effects of actually creating a mandala.

Our study sought to test in a controlled manner, the psychological and physical health benefits of mandala drawing within a trauma population. In choosing a research design and methodology that would adequately achieve this goal, we drew upon the techniques and methodology used in a body of research by James Pennebaker and colleagues that examines the physical and psychological health benefits of disclosure of traumatic events through writing (Pennebaker, 1997a, 1997b; Pennebaker & Seagal, 1999; Pennebaker & Susman, 1988). Our study design is modeled closely after the recent study conducted by Sloan and Marx (2004a). It applies a creative variation of the disclosure paradigm, and this sort of creative extension has been encouraged (King, 2004).

The primary purpose of our study was to examine the healing aspects of drawing mandalas. Specifically, the psychological and physical health benefits of mandala drawing were viewed as a creative means of traumatic disclosure that would symbolically organize and integrate emotions and experiences, while serving the same function as writing a narrative. The drawing of a mandala provides cognitive integration and organization to complex emotional experiences that will give a sense of personal meaning, as well as serving as a mechanism of therapeutic exposure, as does the written disclosure task. These benefits were measured in terms of changes in the variables of self-reported trauma symptom severity, depression, anxiety, spiritual meaning, and the frequency of occurrence of physical symptoms and illness.

It was hypothesized that individuals assigned to a mandala-drawing condition would show a significant increase in psychological and physical health relative to control group participants both immediately after the intervention and at a 1-month follow up. Improvements in psychological health would be evidenced by decreases in self-reported depression, anxiety, post traumatic stress disorder (PTSD) symptom severity, and an increase in spiritual meaning. Improvements in physical health were determined through decreases in the self-reported frequency of occurrence of physical health problems.

Method

Participants

Participants were prescreened for both the experience of trauma and trauma symptom severity using the Posttraumatic Stress Dis-

order Scale (PDS; Foa, 1995). Those who reported experiencing one or more traumatic stressor(s) (determined by responses drawn from a checklist contained in the PDS) and who showed at least moderate levels of PTSD symptom severity (i.e., greater than 10 on the PDS) were regarded as potential participants for the study. Potential participants were excluded from the study if they reported being currently in psychotherapy or currently taking psychotropic medication. This exclusion criterion was included to ensure that changes in outcome measures were due to experimental manipulation and not the effects of therapy or medication. These criteria were modeled after the Sloan and Marx study on written disclosure (see Sloan & Marx, 2004a).

The qualified participants were contacted and, if interested, were assigned randomly to either a mandala or control condition. Although there were various levels and types of trauma, participants were not assigned according to level of severity or type of trauma. They were assigned randomly. The results of the prescreen test were discarded, and new PDS assessments were given at the first group meetings. The participants consisted of 36 undergraduate students participating for course credit, recruited from introduction to psychology classes at a large southwestern university. There were both male ($n = 8$) and female ($n = 28$) students ranging in age from 18 to 23 (mean age = 18.4, $SD = .934$). The types of trauma represented were assault ($n = 3$), auto accident ($n = 4$), death or suicide of a family member or close friend ($n = 7$), physical abuse ($n = 4$), separation of parents or other family stressor ($n = 4$), serious health concern of family or self ($n = 4$), sexual abuse ($n = 4$), verbal abuse ($n = 2$), and witness to a traumatic event ($n = 4$). The severity of the trauma ranged from 10 to 36 (mean trauma severity = 21.47, $SD = 7.08$).

Measures

Appropriate permission was sought and granted to use the following measures.

The PDS (Foa, 1995) is a 49-item self-report measure to aid in the detection and diagnosis of PTSD. Participants report on PTSD symptoms that they have experienced within the last month. This measure not only yields PTSD diagnostic information but also provides an index of PTSD symptom severity. Items are rated with regard to presence (i.e., yes or no) and with regard to symptom severity. Symptom severity scores are rated from below 10 (*mild*), 10–20 (*moderate*), 21–35 (*moderate-to-severe*), to above 35 (*severe*) (Foa, 1995). PDS symptom severity scores were used as the primary means of indicating changes in the severity of participants' traumatic symptoms from baseline (Time 1) to completion of the intervention (Time 2) to 1-month follow-up (Time 3). The coefficient alpha for the PTSD symptom severity score was .87 in the current study.

The *Beck Depression Inventory, Second Version* (BDI-II; Beck, Steer, & Brown, 1996) is a 21-item self-report measure that assesses the symptoms of depression. The BDI-II was included to examine changes in depressive symptomatology from baseline (Time 1) to completion of the intervention (Time 2) to 1-month follow-up (Time 3). The coefficient alpha for the BDI-II was .89 in the current study.

The *State-Trait Anxiety Inventory* (STAI; Spielberger, 1983) is a 40-item, self-report measure that assesses levels of transitory feelings of anxiety, worry, and fear (state), and the more stable

(trait) tendencies to feel worried and react anxiously. The STAI was included in this study to assess changes in both state and trait anxiety levels from baseline to follow-up at Times 2 and 3. Coefficient alphas of .90 and .92 were found in the current study for state and trait anxiety, respectively.

The *Spiritual Meaning Scale* (SMS; Mascaro, Rosen, & Morey, 2004; Mascaro & Rosen, 2006) is a single scale, 15-item self-report inventory that measures the extent to which a person believes that life, or some force of which life is a function, has a purpose, will, or way in which individuals participate, independent of religious orientation. The SMS was included as a measure in this study because having meaning in one's life positively correlates with psychological health and negatively correlates with depression, anxiety, and psychological distress (Mascaro et al., 2004; Mascaro & Rosen, 2005, 2006). The coefficient alpha for the SMS score was .93 in the current study.

The *Pennebaker Inventory of Limbic Languidness* (PILL; Pennebaker, 1982) is a 54-item scale that measures the frequency of a group of common physical symptoms and sensations. The PILL was used in this study to measure health outcomes such as physical symptoms, physician visits, and sick days. The coefficient alpha for the PILL was .93 in the current study.

Procedure

The process of approval for human subject research by the University's institutional review board was followed and approval was obtained. The conditions of each session were assigned randomly, and the participants did not know which group they would be attending. Participants in the experimental ($n = 19$) and control conditions ($n = 17$) were tested separately in small groups of five to ten individuals. Using the example of various Pennebaker et al. written disclosure studies (Pennebaker, 1997a, 1997b; Pennebaker & Seagal, 1999; Pennebaker & Susman, 1988), the drawing sessions took place across 3 consecutive days, with all participants drawing for a total of 20 minutes each session.

At the beginning of the first session for each condition, the lead investigator briefly explained the purpose of the study and written informed consent was obtained. This included informing participants of the sensitive nature of the study and providing them with a list of individuals or psychological service providers to contact if they felt distressed at any time during or after the experiment.

All participants completed the time one measures for PDS, BDI-II, STAI, SMS, PILL, and a demographic questionnaire immediately before drawing at the first session. With the exception of the demographic questionnaire, the same measures were completed immediately after the last drawing session (time two) and at a 1-month follow-up (time three). When participants in both conditions finished the self-report measures, they were given a large envelope containing one blank sheet of paper and an instruction sheet specific to their condition. For simplicity and standardization, a box of crayons and a pencil were also provided. A trained research assistant instructed them to open their envelopes and follow along as the specific instructions provided within their envelope were read aloud by the assistant.

The participants in the mandala condition were asked to draw a large circle on their paper and then fill the circle with representations of feelings or emotions related to their trauma using symbols, patterns, designs and colors (but no words) that felt right to them.

In the control condition, participants were instructed to draw an object over the next 3 days. Each day they were given a different drawing assignment (cup, bottle, or pens) and told to make their drawing as detailed as possible. The research assistant instructed the participants to draw for 20 minutes. Their drawing and the instruction set were put in the envelope before leaving. Participants were thanked for their participation and reminded to return the following day.

At the end of the third session, a trained research assistant debriefed participants after they completed the second set of dependent variable measures (i.e., the PDS, BDI-II, STAI, and SMS) and the drawing. However, this debriefing did not involve telling participants the true nature of the study for fear of biasing the results at the follow-up session. Therefore, this was an abbreviated debriefing that focused more on how they were doing and ascertaining whether there were any problems they have experienced. A full debriefing as to the nature of the study and the expected results was provided to the participants after the completion of the third set of dependent variable measures at the 1-month follow-up. An outcome questionnaire assessing overall satisfaction with the study was completed at the follow-up session as well. Participants in the mandala-drawing group were also asked to write a description of the symbolic meaning of their mandalas after completing the measures at the 1-month follow-up. The researchers waited a month to ask about the symbolic meaning of the mandala drawings because having the participants put their feelings in words could have confounded results. This information was used for a brief examination of the qualitative features and symbolic meaning of the mandalas.

Results

A series of one-way analyses of covariance (ANCOVA) comparing the experimental and control groups were conducted for all outcome measures at Time 2 and at 1-month follow-up. Because the two randomly assigned groups had different initial levels of

trauma symptom severity, depression, anxiety, and health symptom severity at Time 1, the use of ANCOVA as opposed to analysis of variance was warranted. Using ANCOVA permitted the researcher's to detect mean differences between treatment groups at Times 2 and 3, while controlling for differences at baseline. Although baseline differences between groups were not statistically significant, they were large enough to warrant the use of ANCOVA. As indicated by Table 1, all variables were correlated with themselves over time, and this also spoke to the importance of using ANCOVA to control for baseline levels of the outcome variables.

The covariate for each ANCOVA was the value for the respective outcome variable at the beginning of the study, before the mandala-drawing manipulation (or control drawing manipulation). Controlling for baseline levels of traumatic symptoms as measured by the PDS, participants in the mandala condition were experiencing fewer symptoms of trauma than those in the control condition at 1-month follow-up [$F(1, 35) = 6.615, p < .015$]. These results are illustrated clearly in Table 2, which indicate that although those in the mandala condition were experiencing more severe symptoms of trauma than those in the control condition at baseline and at the end of the last day of drawing, they were experiencing less severe symptoms by 1-month follow-up. Simply put, even though they had more severe traumatic symptoms before the study, 1 month after the study the mandala group had less severe symptoms of trauma than the control group. The fact that the experimental group did not exhibit the lowered level of traumatic symptoms until a month after the experimental manipulation may suggest that the exercise led to changes deep within cognition, thus facilitating increasing gains over time as opposed to the diminishing gains over time that are typically seen in such studies.

Whereas there were differences between the two groups with respect to PTSD symptoms, there were no significant differences on the other measures (i.e., the BDI-II, State-Trait Anxiety Inven-

Table 1
Correlations Between All Measures

	PDS1	PDS2	PDS3	BDI1	BDI2	BDI3	SMS1	SMS2	SMS3	STAI1	STAI2	STAI3	PILL1	PILL2	PILL3
PDS1	1	.825**	.681**	.530**	.474**	.539**	-.176	-.254	-.316	.331**	.566**	.330*	.152	.093	-.082
PDS2		1	.796**	.723**	.703**	.650**	-.228	-.294	-.326	.530**	.637**	.463**	.225	.140	.002
PDS3			1	.534**	.498**	.608**	-.123	-.183	-.202	.361*	.629**	.470**	.071	.101	.038
BDI1				1	.880**	.780**	-.258	-.372*	-.411*	.590**	.458**	.583**	.334	.248	.214
BDS2					1	.765**	-.346*	-.403*	-.466**	.521**	.514**	.501**	.184	.122	.004
BDI3						1	-.452**	-.572**	-.609**	.419*	.585**	.819**	.006	.059	-.074
SMS1							1	.883**	.831**	-.170	-.151	-.295	-.111	-.127	-.055
SMS2								1	.922**	-.258	-.291	-.460**	-.061	-.129	-.014
SMS3									1	-.282	-.300	-.443**	-.037	-.114	.030
STAI1										1	.622**	.407*	.459**	.375*	.352*
STAI2											1	.543**	.203	.155	.017
STAI3												1	.033	.061	-.016
PILL1													1	.890**	.834**
PILL2														1	.887**
PILL3															1

Note. PDS1-3 = Post-traumatic Stress Disorder Scale at times 1, 2, and follow-up; BDI1-3 = Beck Depression Inventory Scale at times 1, 2, and follow-up; SMS1-3 = Spiritual Meaning Scale at times 1, 2, and follow-up; STAI1-3 = State-Trait Anxiety Inventory at times 1, 2, and follow-up; PILL1-3 = Pennebaker Inventory of Limbic Languidness at times 1, 2, and follow-up.

* $p < .05$. ** $p < .01$.

Table 2
Trauma Severity Across Sessions

Assessment	Mandala group condition (<i>n</i> = 19)		Control group condition (<i>n</i> = 17)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
PDS1	19.37	7.06	15.71	6.89
PDS2	18.05	9.71	15.41	8.49
PDS3	13.42*	8.45	15.47	8.62

Note. PDS1–3 = Post-Traumatic Stress Disorder Scale at times 1, 2, and follow-up.

* $p < .015$.

tory, SMS, or PILL), suggesting that the mandala-drawing exercise was specific to symptoms of traumatic stress (see Table 3).

Qualitative Analysis

A brief exploratory analysis of the qualitative features of the mandala drawings from this study was reviewed. This is the reason why participants were asked to provide a description of the symbolic meaning of their mandalas after completing the last set of measures at the 1-month follow-up session. Those in the mandala groups were asked to “create three different drawings representing the most traumatic, upsetting experience of your life.” They were also instructed to “explore your deepest emotions and thoughts.” In these drawings, it was evident that many participants used extensive symbolism to represent emotions. For example, tears and broken hearts were used for sadness. Sunshine and smiley faces were used for happiness, and dark colors for depression and brighter colors for hope. Figure 1 is a mandala drawing that expresses the trauma that a female participant experienced. She

Table 3
Individual Assessment Measures

Assessment	Mandala group condition (<i>n</i> = 19)		Control group condition (<i>n</i> = 17)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
BDI-II				
Time 1	17.95	9.26	15.35	7.11
Time 2	16.63	11.74	13.35	7.03
Follow-up	13.95	9.50	13.06	8.55
STAI-State				
Time 1	45.05	10.75	49.05	12.29
Time 2	41.16	11.30	44.05	10.12
Follow-up	40.95	11.54	42.0	13.26
SMS				
Time 1	64.05	6.81	64.88	13.08
Time 2	62.83	9.19	63.05	13.87
Follow-up	63.79	10.49	64.94	12.38
PILL				
Time 1	127.5	29.84	123.6	24.28
Time 2	120.8	29.71	123.0	22.47
Follow-up	114.9	24.13	121.1	16.91

Note. BDI-II = Beck Depression Inventory—II; STAI-State = State-Trait Anxiety Inventory; SMS = Spiritual Meaning Scale; PILL = Pennebaker Inventory of Limbic Languidness.

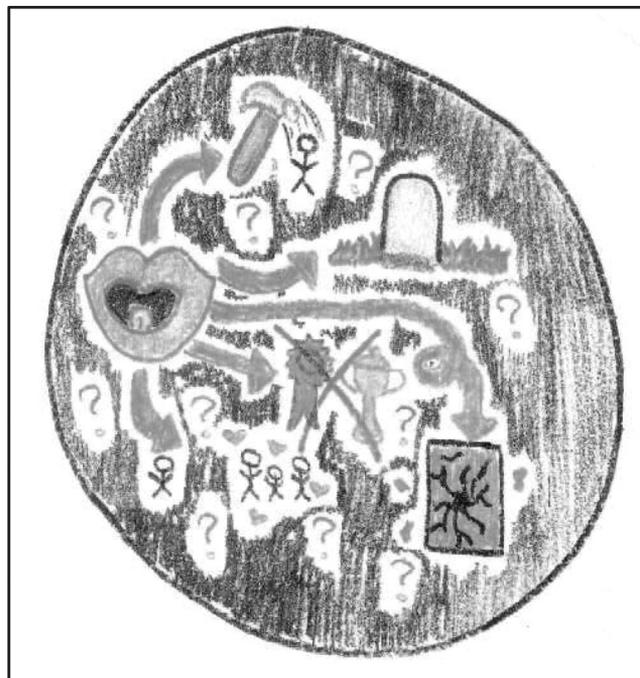


Figure 1. A mandala drawn by experimental group participant who experienced verbal abuse.

said that Figure 1 represents “the effect of verbal abuse and everything that it shattered in my life.” Figure 2 is a mandala drawn by another female participant that had an auto accident that totaled her vehicle. She explained that the yellow star represented both the intensity of her feelings and the hope she knew she would feel eventually.

The outcome questionnaire revealed that many of the participants reported being helped by taking part in the study where they could express their trauma. For instance, one participant who drew mandalas wrote, “The drawings were an excellent way of subconsciously getting down to the real feelings that so many of us have tried to build a wall around. Sometimes these walls need to come down so real healing can begin. . .thank you.”

Discussion

Benefit of Mandala Drawing for Health Outcomes

In our study, we examined the benefits that individuals suffering from clinical levels of traumatic distress could gain from processing their trauma through the creation of mandalas. Although it was hypothesized that there would be significant improvements in numerous health outcomes, the only outcome for which there was significant relative improvement was PTSD symptom severity. Such results are only partially consistent with studies relying on verbal processing tasks (Sloan & Marx, 2004a, 2004b), because gains in the current study were specific to trauma symptom severity, whereas gains in verbal processing tasks appear to be more broadly ranging. Results of the current investigation are nevertheless noteworthy, because the condition of interest in the current study was PTSD and participants were selected who had ele-

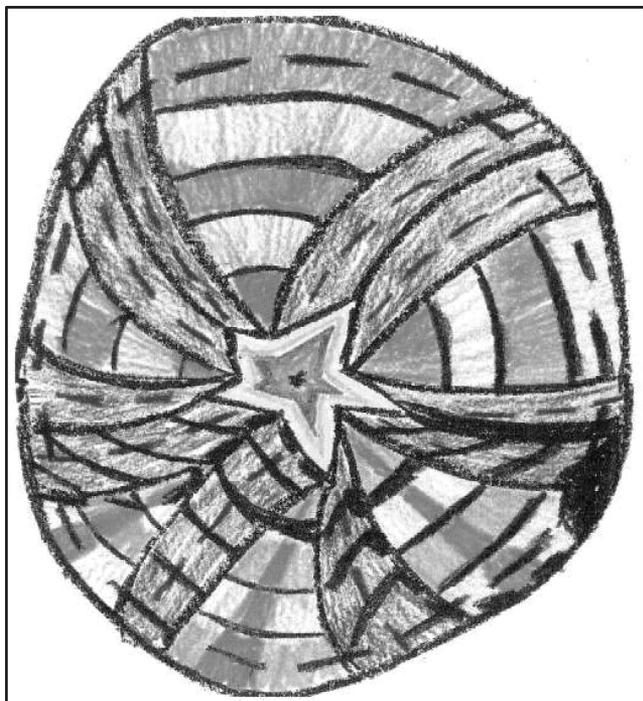


Figure 2. A mandala drawn by a different experimental group participant who experienced a serious auto accident.

vated levels of traumatic distress, although not necessarily elevated levels of depression, anxiety, or physical symptoms, or decreased levels of meaning in life. Therefore, the mandala-drawing exercise seemed effective in ameliorating symptoms of the clinical condition for which participants were specifically chosen. The current mandala-drawing exercise and similar ones should be investigated as ways of supplementing or substituting for verbal processing treatments for trauma victims, particularly those who, because of personality features or cognitive factors, are unable or unwilling to process traumatic experiences through verbal means.

Strengths and Weaknesses

An obvious weakness of this study is the small sample size and the differences in the numbers of males and females. Our project was a small initial study to test the feasibility of this line of research, and similar studies with greater sample size and more balanced gender distribution need to be conducted. Furthermore, although the participants were undergraduate college students with PTSD, it would be beneficial to have a sample from a larger population of individual's suffering from more severe levels of trauma. Another shortcoming was the lack of direct comparison of a mandala-drawing task with other control groups, such as a predrawn mandala coloring condition, another art therapy condition, and a writing condition. Another condition might be desirable in which individuals were asked to reflect on their trauma but were not allowed to symbolically depict or write about that trauma. Ideally, all or some of these conditions could be examined in future

studies, and the different health benefits for different manipulations might be uncovered.

Directions for Future Research

Extending this line of research with children and adolescents who are victims of abuse would be an area of great interest. Some children, depending upon age and educational opportunities, lack the ability to adequately and effectively express traumatic experiences through written or verbal language. Furthermore, children are often shamed into secrecy by their abusers and are fearful to disclose incidences of abuse. Mandalas drawn by such children could serve the need of expression of traumatic experiences in a simpler and less threatening way than writing or talking about the events. The current findings suggest that research in such areas would prove fruitful.

Scientific research into Jungian theory is uncommon. Jung's theories are often criticized as being too vague or complex and difficult to understand and, therefore, better left to the realms of art or religion (Slegelis, 1987). It seems as though Jungian theory has been unable to gain respect among more scientific schools of thought because of this lack of scientific research. Similarly, the field of art psychotherapy has lacked the credibility and respect of more scientific fields due to a lack of empirical research. Future research ought to be conducted that might bridge the worlds of the artistic and the scientific in an effort to increase awareness of healing techniques derived from Jungian theory and art psychotherapy.

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