Section 1: Theory and Research

Psychodrama Intervention for Female Service Members Using the Therapeutic Spiral Model

Rebecca Perry, OTR/L, 1 Kyla Saby, OTR/L, 1 Jeanne Wenos, PED, 2 Kate Hudgins, PhD, 3 and Stephanie Baller, PhD 4

This study assessed the ability of the Therapeutic Spiral Model to increase self-esteem and occupational participation while decreasing hopelessness in military women with posttraumatic stress disorder (PTSD). A participant group (n=7) and comparison group (n=6) of military women with PTSD were given pretests: the Beck Hopelessness and Rosenberg Self-Esteem Scales. Participants attended a Therapeutic Spiral Model workshop. Both groups were given posttests and a semistructured interview. Participants in the group with clinical PTSD diagnoses increased self-esteem and decreased hopelessness. The comparison group decreased self-esteem and increased hopelessness. Participants gained insight into their traumatic experiences and tools to increase participation in roles and activities. Results support the use of psychodrama intervention with female military populations with PTSD.

KEYWORDS: PTSD; military; women; service members; psychodrama; Therapeutic Spiral Model; alternative intervention; self-esteem; hopelessness; occupational participation; nonverbal behavior.

INTRODUCTION

Posttraumatic stress disorder (PTSD) is a clinical syndrome described in the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; American Psychiatric Association, 2013). It occurs after exposure to traumatic events and

¹ Rebecca Perry, OTR/L, and Kyla Saby, OTR/L, have completed training in the Therapeutic Spiral Model and received their master's degree in occupational therapy from James Madison University. Correspondence concerning this article should be addressed to Rebecca Perry at rkt.perry@gmail.com or Kyla Saby at kdsaby@gmail.com.

² Jeanne Wenos, PED, is an Assistant Professor in the Masters of Occupational Therapy Program at James Madison University.

³ Kate Hudgins, PhD, TEP, is an American Trainer in Psychodrama, Sociometry and Group Psychodrama with a PhD in Clinical Psychology, located at Therapeutic Spiral International, Charlottesville, Virginia.

⁴ Stephanie Baller, PhD, is an Assistant Professor of Health Sciences at James Madison University.

persists for more than one month, effecting functional impairment. PTSD is the most frequently diagnosed psychiatric disorder in veterans (Seal et al., 2009). As women in the military have more combat exposure, paired with a higher risk for military sexual trauma, more cases of PTSD in military women are being seen (Kimerling, Gima, Smith, Street, & Frayne, 2007; Maguen et al., 2012). However, due to negative societal perceptions, military culture, and personal stigma, cases often go unreported (Greene-Shortridge, Britt, & Castro, 2007; Mittal et al., 2013). Though the U.S. Department of Defense estimates that approximately 26,000 service members experienced sexual assault in 2012, only 11% of those cases were reported (Department of Defense, 2014). Barriers to reporting incidences included stigma, shame, fear of disciplinary action, fear of revictimization, fear of impact on deployment, and not knowing how to report.

The Therapeutic Spiral Model (TSM; Hudgins, 2002; Hudgins, Drucker, & Metcalf, 2000; Hudgins & Toscani, 2013) is a clinically structured method of psychodrama for people who have had significant trauma in their lives. The TSM has a well-documented protocol used in individual, family, and small- or large-group settings. The therapist chooses clinical interventions that keep clients safe who are distressed and prevent retraumatization. The TSM has been used worldwide in a variety of settings with people experiencing PTSD and other trauma-related issues (Hudgins & Toscani, 2013).

The TSM has been shown to be effective with populations who have been traumatized; however, there is a lack of research as to the effectiveness of the TSM with military women with PTSD. Additionally, because of the gap in research describing the role of occupational therapy in psychodrama, the ability of psychodramatic models such as the TSM to increase occupational participation is unknown.

This study looks at the ability of the TSM to increase self-esteem and occupational participation, manage PTSD symptoms, and decrease hopelessness in female service members diagnosed with PTSD. Outcomes will help to create a bridge between the TSM and occupational therapy, as well as answer the following questions: Will participation in the 3-day TSM workshop decrease hopelessness, increase self-esteem, expand adaptive responses for those living with PTSD, and bring meaning to occupational roles? Does the TSM inform occupational therapy about PTSD intervention?

REVIEW OF LITERATURE

The concepts underlying the TSM are rooted in the neurobiology of traumatic experience. Remembering traumatic experiences triggers primitive fear centers, evidenced by increased activity of the amygdala, insula, and anterior temporal areas of the right brain, along with reduced activity in the language centers (Broca's area) of the left brain (Rauch et al., 1996; Shin et al., 1997). This dissociation of the right and left brain results in a state of panic, making it difficult to describe or discuss trauma (van der Kolk, 2006; van der Kolk, McFarlane, & Weisaeth, 1996).

An action method such as the TSM helps the participant reconnect the right and left sides of the brain, bringing the individual to a higher level of functioning.

The TSM educates participants about the neuroscience underlying PTSD through active brain demonstrations (Hudgins, Culbertson, & Hug, 2013). This provides the left brain with principles that help define emotions related to trauma, and encourages grounding and embodiment during the healing process.

Psychodrama has been shown to be an effective intervention with a variety of populations, including veterans with PTSD (Rademaker, Vermetten, & Kleber, 2009). Ragsdale, Cox, Finn, and Eisler (1996) studied a 26-day inpatient treatment program for Vietnam combat veterans. Outcomes included increased ability to share and bond with those in the group, willingness to take responsibility for actions during social situations, and reductions in shame, guilt, isolation, hopelessness, and loneliness. Rademaker et al. (2009) used a multimodal outpatient treatment, including psychodrama, to treat veterans with chronic PTSD. Outcomes showed an overall decrease of PTSD symptoms, specifically depression, anxiety, and somatic symptoms. Work-related problems were reduced, and self-esteem and active coping increased.

Psychodrama has also been measured as an intervention with women who have experienced trauma. Sezgin and Punamaki (2008) studied the effects of a psychodrama group with women who had experienced multiple traumas. After participating in a 5-month group, the women experienced a decrease in PTSD symptoms, anxiety, depression, and interpersonal difficulties, and maladaptive strategies decreased.

A case study conducted by Hudgins, Drucker, and Metcalf (2000) studied the effectiveness of the Containing Double, a primary role utilized during TSM psychodramas. The use of the Containing Double during three sessions was shown to decrease PTSD symptoms, specifically dissociation. Adaptive behavior learned during sessions was shown to transfer to personal and professional relationships.

The TSM grants participants the opportunity not just to revisit their own perception of trauma but to simultaneously offer empathy to others in the group with similar experiences. Though psychodrama has been shown to be effective with both veterans and women with PTSD, the TSM has not been studied as an intervention with female service members with PTSD. This study explores how the TSM affects PTSD symptoms, self-esteem, hopelessness, and occupational roles.

METHOD

Participants in both the comparison (control) and participant (workshop) groups were recruited by the fourth author and the team who conducted the psychodrama workshop, using convenience sampling through online postings on the TSM website and social media. Inclusion criteria dictated that participants be a minimum of 18 years old, a female service member (veteran, active duty, or spouse), and diagnosed with PTSD. Pretest information gathered early in the workshop showed that some members of both comparison and participant groups were seeking help for PTSD symptoms without a clinical diagnosis of PTSD. Pretest scores for those with and without a clinical diagnosis were measured separately and compared to one another to determine if differences existed.

Because differences were found, both comparison and participant groups were divided into PTSD and non-PTSD groups. Exclusion criteria were untreated alcohol or substance dependence, psychotic or personality disorder, and acute medical conditions.

The final sample for the participant group consisted of seven women, with ages ranging from approximately 30 to 60 years old. Two participants identified their race as White and five as Black or African American. Two of the participants served in the Navy, one in the Air Force, three in the Army, and one participant was a civilian whose spouse served in the Army. Two participants were on active duty at the time of the workshop. Of the workshop participants, four had been formally diagnosed with PTSD and were receiving treatment for PTSD at the time of the workshop. The final sample for the comparison group consisted of six women, with ages ranging from 30 to 59 years old. Four members identified their race as White and two as Black or African American. One of the members served in the Marine Corps, four in the Army, and one in the Air Force. None of the comparison-group members were on active duty at the time of the survey. Of the comparison group, four members had been formally diagnosed with PTSD, and three of those four were receiving treatment for PTSD at the time of the survey.

The 3-day workshop took place at the Virginia Foundation for the Humanities in Charlottesville, VA. Participants were provided room and board. Measures used were the Beck Hopelessness Scale (Beck, Weissman, Lester, & Trexler, 1974) and the Rosenberg Self-Esteem Scale (Rosenberg, 1965), which were administered before and after the workshop.

INSTRUMENTATION

Beck Hopelessness Scale

The Beck Hopelessness Scale is a 20-item scale, to which respondents answer true or false about a variety of statements regarding the short- and long-term future. It is shown to have concurrent validity with similar tests, including the Stuart Future Test (.60, p < .001), and the pessimism item of the Depression Inventory (.63, p < .001; Beck, 1967; Stuart, 1962). The reliability coefficient was scored at .93 using coefficient α (Beck et al., 1974). This measure has shown significant change using pre- and posttests in a drama-therapy intervention with veterans with PTSD (Ragsdale et al., 1996).

Rosenberg Self-Esteem Scale

The Rosenberg Self-Esteem Scale has 10 items measured on a 4-point Likert scale (*strongly agree* to *strongly disagree*). Participants rank their current feelings regarding self-esteem; scores range from 0 to 30. The scale has been shown to have high validity and reliability, with test–retest correlations of .82 to .88 (Blascovich & Tomaka, 1993).

Semistructured Interview

We conducted a semistructured interview with two of the participants after completion of the workshop; the two participants were chosen using purposive sampling. The qualitative interview focused on participants' perceptions of occupational roles, outlook on the future, and relationships, as well as their experiences during the 3-day workshop. Three members of the comparison group, also chosen using purposive sampling, received an online interview focusing on perceptions of occupational roles, outlook on the future, and relationships, as well as their experiences of PTSD interventions.

Body Language Checklist

We created a 32-item checklist of nonverbal behaviors, such as eye contact, furrowed brow, crossed arms, and open chest. Interrater reliability was not established at the time of the workshop. During the 3-day workshop, researchers conducted frequency sampling by observing each participant for 1 min on an hourly basis.

PROCEDURES

The study was approved following a full board review by the James Madison University Internal Review Board. Both the participant and comparison groups were given demographic questions, two pretests (the Rosenberg Self-Esteem Scale and the Beck Hopelessness Scale), and the same posttests. For the participant group, pretests were given prior to the 3-day workshop. The fourth author led the TSM workshop, assisted by four TSM-certified team members. The participant workshop followed the TSM protocol described by Hudgins and Toscani (2013). The workshop protocol has been tested previously, showing improvement on measures such as anxiety, depression, and general trauma symptoms (Hudgins et al., 2000; Hudgins & Toscani, 2013). Researchers conducted frequency sampling of each participant's nonverbal behavior throughout the workshop. Participants were not made aware that their body language was being observed in order to ensure natural behaviors. Following the workshop, participants were given the posttests. Two participants were selected using purposive sampling to take part in the semistructured interview regarding their occupational roles and experience of the workshop.

For the comparison group, pretests were e-mailed prior to the workshop and posttests were e-mailed after the workshop. Three members of the comparison group were sent the semistructured interview regarding their occupational roles and experiences with PTSD treatment.

DATA ANALYSIS

Qualitative data from the semistructured interviews were coded using six a priori themes reflecting the guiding questions and data from the quantitative measures: hopelessness, self-esteem, meaning, adaptive response, activities, and roles. Insight

Group	No. of Participants	Beck Hopelessness Scale Average Change	Rosenberg Self-Esteem Scale Average Change
PTSD participant Non-PTSD	4	-4	5.25
participant	3	-1.67	-0.67
PTSD comparison Non-PTSD	4	2	-0.5
comparison	2	1	-1.5

Table 1. Change scores for quantitative data.

and experience of the workshop were identified as emerging themes. Quantitative data were measured using change scores from pre- and posttests.

RESULTS

Decreased Hopelessness

Change scores for pre- and posttests were calculated by hand for each participant and averaged for each of the four groups. For the Beck Hopelessness Scale, the PTSD participant group averaged a change of -4 and the non-PTSD participant group averaged a change of -1.67. The PTSD comparison group averaged a change of 2, and the non-PTSD comparison group averaged a change of 1 (Table 1).

Increased Self-Esteem

For the Rosenberg Self-Esteem Scale, the PTSD participant group averaged a change of 5.25 and the non-PTSD participant group averaged a change of -0.67. The PTSD comparison group averaged a change of -0.5, and the non-PTSD comparison group averaged a change of -1.5 (Table 1).

Nonverbal Behavior

Following the workshop, each item on the 32-item nonverbal checklist was coded as either open or closed, and the average frequency of behaviors for each day was calculated. Examples of open behaviors included eye contact, smiling, and open chest; examples of closed behaviors included slouching, downcast eyes, and crossed arms. Open behaviors are associated with self-control and the ability to take action, whereas closed behaviors are associated with depressed feelings and increased cortisol levels (Carney, Cuddy, & Yap, 2010). Average closed behaviors decreased throughout the workshop, from 31 on Day 1 to 19.3 on Day 3, and average open behaviors increased throughout the workshop, from 18 on Day 1 to 35.66 on Day 3 (see Figure 1).

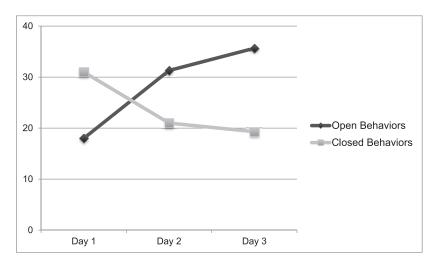


Figure 1. Non-verbal behavior frequencies.

Semistructured Interviews

Themes from the qualitative interviews were organized into a model showing the interrelation of themes. As Figure 2 shows, participants were asked about roles and activities before and after their traumatic experiences. When participants felt frustration in their roles and activities, this led to hopelessness; when they experienced resilience, this led to a sense of self-esteem. Hopelessness and selfesteem were found to be on a continuum, and participants entered the workshop with some degree of both. Through the 3-day TSM workshop, participants gained insight into their past traumatic experiences and the way those experiences affected their daily routines. That insight allowed them to make meaning of their experiences and led them to an adaptive response for coping with PTSD symptoms in roles and activities. Workshop interview participants are referred to as Sharon and Lisa. All workshop participants were invited to share feedback at the time of the posttests, and comments from Amber and Erin are included in the results. Three comparison-group interviewees answered open-ended questions in an online survey; the comparison-group respondents are referred to as Jill, Ann, and Sue. All names were changed to protect group members' identities.

OUALITATIVE DATA MODEL

Roles

Interviewees were asked about their roles previous to their traumatic experience, and how they felt their roles had changed since that time. Sharon stated, "I remember before I came in the military, I was happy-go-lucky, I was really kind, really caring, I was willing to help people, much more than I am now." Roles

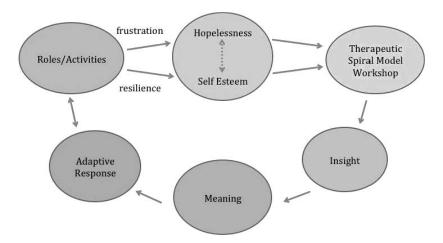


Figure 2. Qualitative data model.

were generally described by interviewees as becoming military focused after the trauma. Sharon stated that her roles as daughter and mother changed as she learned to put her military duties first. Lisa also described her previous roles as "overtaken" by her military life. Jill described herself after her military trauma as "divorced and my family relationships have suffered as well as my work."

Activities

Sharon describes her posttrauma activities as "totally military oriented." Lisa described her mind-set upon returning home from deployment, saying, "I'm home, I don't wanna answer the phone, I don't feel like talking to my family. I just want to be by myself right now." Lisa says that all her activities have changed since she has been home, including "relationships, eating habits, [and] sleeping habits." Ann says of her posttrauma activities, "I do not enjoy work anymore and I have become very angry and agitated. I no longer have productive relationships and I do not trust people anymore. I am always on guard and I feel that someone is always trying to kill, hurt or maim me."

Hopelessness

Experiencing frustration in roles and activities can lead to a sense of hopelessness. Sharon described her difficulties in the military:

At some point during my 26 years [in the military], I became very bitter, I became angry, and bitter, and things were hopeless, and no matter how hard I tried, oh god . . . It's a lot of discrimination, racism, sexism.

She describes feeling that authority figures could take away a subordinate's career with nothing more than a "pen and paper." She states, "This type of

environment, it's not healthy." Lisa, who does not have a formal PTSD diagnosis, describes the implications of receiving a diagnosis in the military:

To even speak of PTSD, or soldiers even stating that they have that, is like a black cloud over you. If you tell someone at work, "Hey, I have PTSD," the first thing they think of, you're ready to commit suicide, or you're ready to kill somebody. PTSD is not just that. Soldiers go through more than that.

Jill states, in regard to her attempts to seek treatment for PTSD, "I do not feel my condition was helped at all. Most just checked the [box]." She says, "The entire process [of treatment] was a joke."

Self-Esteem

Interview participants described building self-esteem through their experience in the workshop. Lisa described how she approached coming to the workshop, stating, "I don't know what I'm going here for, but I'm going to be open. I'm not going to be defensive, I'm not going to shut down, I'm not going to get offended." Sharon said the workshop will give her an outlook granting her "more reason to pause, and reflect." She also stated, "I like the fact that I have control over, I have more control over my behavior."

Workshop

Participants emphasized the importance of the workshop being unaffiliated with the military, as this allowed them freedom to openly discuss their experiences. Lisa also described the importance of processing events following deployment, and suggested that many soldiers would benefit from a TSM workshop. She said, "We just want to get away, have some time to ourselves. Like, what we did [in this workshop], that's what we need as soldiers when we're coming back from deployment. If we don't get that type of time, it's hell for our families." Participants also felt that the workshop allowed them to begin to process past traumatic experiences. Amber shared, "Dealing with my core violations [like] safety [and] trust were crucial to my healing process [and] could not be done with medication and weekly counseling sessions."

Insight

Participants described how their experience in the workshop led them to greater insight regarding their trauma. Sharon said, "It allowed me . . . to see that there is another way of doing it and I don't have to settle for just one answer, that I can choose from various answers and it's important to get the wisdom that you need, so you can make wise choices."

Lisa shared that the workshop helped her begin to process her experiences on a deeper level. Despite coming to the workshop with a sense of spiritual wellbeing, she was able to process internal emotions (i.e., pain, frustration, and anger) more deeply through TSM.

Meaning

Participants shared that hearing others' stories was meaningful and helped them begin to make meaning of their own experiences. Sharon said, "I think this workshop helped me to see [what others endure] on a greater scale, even the survivor guilt that I'm experiencing. Everything we did, it helped me to process and feel better, or at least gave me another way of viewing it."

Lisa commented, "I'm honestly glad I came. I got a lot out of it. And I was blessed to meet new people. And get to know other people's stories and experiences, and be able to take that back with me." Another participant, Erin, shared, "I am taking with [me] the knowledge that my story is valid and matters."

Adaptive Response

As participants began to process their experiences in the workshop, they gained new ways of thinking and responding. They spoke of new adaptive responses they could take from the workshop. Lisa stated, "Now I have some tools to say, OK, I can start processing it differently." Sharon commented, "It's given me tools, other tools I didn't have before coming to this workshop, that will allow me to process differently, deeper, I think more effectively."

Follow-Up Survey

Approximately 30% of workshop participants responded to a follow-up survey 3 months after the workshop. Participants reported that they had kept in touch with other participants through e-mail, by phone, or in person following the workshop. They also felt that they had gained skills during the workshop including openness, communication, stress relief, coping, self-love, and acceptance. Lastly, they felt that they had experienced fewer PTSD symptoms following the workshop and were better able to cope when symptoms did occur.

EVALUATION

Female service members and the spouse of a service member who participated in the study were from a variety of military backgrounds and experienced PTSD symptoms as a result of combat or sexual trauma. Despite varying backgrounds, they expressed a universal understanding of the "military mind-set" and acknowledged the importance of supporting each other in revisiting traumatic experiences.

As shown in both the qualitative and quantitative data, participants entered the workshop with some degree of both self-esteem and hopelessness. Participants who had been clinically diagnosed with PTSD increased self-esteem and decreased hopelessness throughout the workshop. Participants without a clinical diagnosis decreased hopelessness and also decreased self-esteem, but to a lesser extent. This may be attributed to the fact that two of these three participants had not

previously engaged in therapy for PTSD symptoms and were facing their traumatic experiences for the first time.

Participants and members of the comparison group spoke of how their roles and activities changed following their traumatic experiences. Several mentioned difficulties in personal and professional relationships, as well as a decreased sense of trust. Others discussed a change in attitude from an optimistic outlook to a hopeless outlook, as well as a greater desire to spend time alone and at home. Participants had an opportunity to share their stories with each other, build trust, and begin to make meaning from their traumatic experiences. Many participants commented on the strength they saw in other participants as they shared their experiences, which led to a sense of unity within the group.

SUMMARY AND RECOMMENDATIONS

This study suggests that TSM may be an effective method for addressing PTSD with female service members. Limitations of the study include a small sample size as well as technical difficulties with the online platform used for the comparison group. The difficulty accessing the online platform for the Beck Hopelessness Scale left six potential comparison-group members unable to take it. It is recommended that future researchers use a different measure or method for collecting data, to ensure accessibility for respondents. Further, we did not establish interrater reliability for the nonverbal-behavior checklist prior to the workshop. Given these limitations, the findings are not generalizable to all populations.

Future studies may also compare the TSM intervention with the current military protocol for PTSD. This will serve to strengthen the evidence in support of alternative methods for addressing PTSD in the military. It is also recommended that researchers consider maintaining only one role during the workshop, rather than moving between the roles of observer and team assistant. The researchers in this study received 50 hr of training in the TSM method prior to the workshop and chose to actively assist during the workshop in order to build trust with participants. However, moving between assistance and observation proved to be inefficient as the researchers attempted to fully commit to each process. Future researchers would benefit from training in the TSM method but may choose to limit their assistance during the workshop and instead focus on observation.

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