

Assessing the effects of meditation on dream imagery, depression and anxiety

Nicolle J. Miller, Teresa L. DeCicco, Allyson L. Dale, & Anthony Murkar

Trent University, Peterborough, Canada

Summary. This study utilized both quantitative and qualitative statistical methods to examine dreams in 22 University students and the effects of meditation on waking day depression levels (BDI), trait anxiety levels (BAI-T) and dream imagery. Results are consistent with previous research in that mood levels changed over the course of the meditation period, specifically, moods benefit from meditation. Specific dream imagery correlated with both depression and anxiety scores, such as scene changes and animals in dreams. There were multiple significant correlations found between dream content and discoveries before and after meditation. This research illustrates that meditation has positive effects on mood and discoveries can be made from dream imagery relevant to waking day. Implications for future research are discussed as well as applications of dream work and meditation in applied practice.

Keywords: Dream imagery, meditation, mood

1. Introduction

The mental health of University students is becoming increasingly alarming in academic literature. Bayrum and Bilgel (2008) state that Western societies have seen an increase in depression and anxiety, to which the implications are far reaching throughout the university environment and students quality of life. The comorbidity of anxiety and depression tends to be particularly high in University students (King & DeCicco, 2007). Meditation has been found to be effective for regulating and treating mood disorders in a variety of forms, and has had a noticeable presence in psychotherapy since the 1970's (Burns, Lee & Brown, 2011). A plethora of research that has shown the continuity hypothesis to be true, such that dream imagery is continuous with waking thought processes (DeCicco, 2007; DeCicco, Lyons, Pannier, Wright & Clarke, 2010; King & DeCicco, 2009; Schredl, Berger & Riemann, 2009), suggesting if someone is depressed or anxious, it should be evident in his or her dream imagery. King and DeCicco (2009) found a link between dreams and personality, as an extension of the Continuity Hypothesis, which suggests a connection between our waking day life experiences, attitudes and behaviours with our dream imagery. Different mind states are represented by different imagery, and with depression and anxiety this is no exception (Jones & DeCicco, 2009; Zanasi, DeCicco, Murkar, Longo, & Testoni, 2010). Jones and DeCicco (2009) found that those experiencing depression tend to have more dark colours in their dreams, while people high

in anxiety have more scene changes, Zanasi et al., (2010) supported these findings with Italian participants.

1.1. Meditation

Natural Stress Relief Meditation (NSR) involves a mental technique practiced for 15 minutes twice a day, which reduces stress and anxiety by inducing a physiological state of deep rest (Coppola & Spector, 2009). This technique, notes Coppola and Spector (2009), has been seen to reduce state anxiety and increase self-actualization, through an increase in autonomy, creativity, inner satisfaction, alertness and productivity. NSR Meditation is self-taught by listening to an audio file, and following the verbal directions described. NSR Meditation and has been noted to be as effective as Transcendental Meditation (TM), which is mantra based, in reducing trait anxiety (Coppola & Spector, 2009). One of the most common uses for meditation used by therapists and clinicians is to help reduce symptoms of stress, anxiety, and depression.

1.2. Anxiety

According to Fergus, Valentiner, McGrath and Jencius (2010) shame and guilt are two emotions regularly experienced as psychological symptoms; anxiety disorders are now seen to have a large connection with shame and guilt, such as Social Anxiety Disorder (SAD) and Generalized Anxiety Disorder (GAD) (Fergus et al., 2010). More specifically, the symptom of worry in GAD may be used by the patients to try and reduce the emotion of guilt (Fergus et al., 2010). Fergus et al. (2010) also explain that shame can be connected to the embarrassment of symptoms of anxiety disorders, such as panic attacks or perspiration. The Beck Anxiety Inventory-Trait (BAI-T) assesses trait anxiety, defined as an acquired disposition to perceive a wide range of situations as threatening and to respond to them anxiously, rather than immediate or prolonged anxiety and similarly controls for depression contamination (Kohn et al., 2008). It has been

Corresponding address:

Nicolle J Miller, MA, Trent University, 1600 West Bank Drive Peterborough, Ontario Canada K9J 7B8.
Email: nicollemiller@trentu.ca

Submitted for publication: February 2015

Accepted for publication: September 2015

revealed that the BAIT is a highly reliable and valid measure of trait anxiety, confirmed through studies done by Kohn et al. (2008).

1.3. Depression

One problem in mental health is that at least one-third of primary care patients escape early detection (Hranov, 2007). Treatment is necessary regardless of style (social or pharmaceutical), as depression tends to get worse without treatment. King and DeCicco (2007) noted in their study that those who were higher in depression showed a higher frequency of sadness, anger, aggression, and scene changes in dream content. Pessant and Zadra (2004) indicate that the higher level of negative affect was significantly related to increased rates of aggression, negative emotions, failures and misfortunes (King & DeCicco, 2007). The Beck Depression Inventory Scale (BDI) (Sharp & Lipsky, 2002) can detect both the symptoms and severity that can then be assessed using the DSM-IV for the correct diagnosis (Beck, Ward, Mendelson, Mock & Erbaugh, 1961; Sharp & Lipsky, 2002).

1.4. Dreams

Historically, the subject of dreams has been viewed differently, but after the discovery of REM sleep by Aserinsky and Kleitman (1953) it became possible to study dreams systematically in the sleep laboratory (Schredl, 2009). We now know dreams are relevant and important in waking day, and that there are important factors influencing dream recall. Dream therapy can be a beneficial tool as it can reveal things about the patient, such as whether they are showing signs of depression or anxiety which may not be as apparent in waking life (DeCicco, 2009). Dream content and themes are studied with the use of Content Analysis, designed by Hall and Van de Castle in 1996 (Barcaro, 2010). Content Analysis quantifies the data found in dream imagery so statistical comparisons and analyses can be made. DeCicco (2007) used content analysis guidelines and found University females experienced five typical dreams themes in DeCicco (2007), which included, being chased, sexual experiences, falling, school themes and arriving late.

1.5. Anxiety, Depression and Dreams

There is a significant difference between dream recall in patients experiencing anxiety, in comparison to depression. Depressive patients experience a higher dream recall, negative emotions, and themes that are remembered, which is an illustration of depression (Schredl et al., 2009), where as, patients suffering from anxiety have a decreased dream recall and many scene changes (Zanasi et al., 2011). In fact, it appears that a high frequency of scene changes in one's dreams relate to their anxiousness, which in turn, makes it more difficult to remember their dreams (Jones & DeCicco, 2009). Dream imagery differs in people suffering from depression in comparison to those of a healthy person (Schredl et al., 2009).

1.6. Treatment using dream therapy

Brown, Davis, LaRocco and Strasburger (2010) define meditation as accepting the present-moments and being open to experiences; it helps with avoidance and to alleviate Axis I disorders such as anxiety and depression. Mindful-

ness training has been applied for treatment of depression through techniques of lowering ruminative thoughts and tendencies (Schreiner & Malcolm, 2008). Meditation used to treat depression has two levels, the first being the increased awareness of the present moment, rather than negative tendencies to try and process all information at once, as well as accepting emotions in a non-judgmental way, which can decrease their dysfunctional cognitive schemas (Schreiner & Malcolm, 2008). Meditation has been used throughout history to treat a variety of conditions, ranging from physical to psychological, and was investigated further in relation to waking day levels of anxiety and depression in conjunction with dream therapy. The suicide rates for Canadian's age 20-25 was 12.5% (per 100,000) according to Statistics Canada in 2011. Given this is the average age of University students; mood regulation becomes extremely important in this high stress environment. Although all of these modalities have been utilized separately, they have yet to be used in conjunction as an aid in mood regulation for students. As such, the purpose of this study was to examine the relationship among these variables, specifically waking day anxiety, depression, dream imagery and meditation. This study examines the effects of practicing meditation for 1 week on waking day levels of anxiety and depression and changes in dream imagery.

1.7. Hypotheses

- Previous research has shown that mood is represented in dream imagery (Jones & DeCicco, 2009; Zanasi et al., 2010), therefore it is expected that waking day depression and anxiety will be reflected in dream imagery of students. Specifically, anxiety will be shown through anxious imagery, which may include multiple scene changes, animals and anxious emotion. Depression will be shown through depressive dream imagery, which can include dark colours, violence and negative affect.
- In congruence with the Italian participants in Coppola and Spector (2009) study, it is expected that measures of depression and anxiety will decrease after 1-week of meditation
- Following previous research, 80 percent or more of the participants will gain discovery from their dreams using The Storytelling Method (TSM) (DeCicco, 2009).
- As anxiety and depression differ, it is also expected that discovery for participants reporting waking day anxiety will differ for those reporting waking day depression, in meaningful and relevant ways (Jones & DeCicco, 2009).

2. Method

2.1. Participants

This study examined the mood and dreams of 22 undergraduate university students who were registered in a fourth year Advanced Dreams and Dreaming course. The mean age of the participants was 23.23 (SD=5.09), with a minimum age of 21 and maximum age 44 years. The majority of students were single (81.82%, n = 18), and currently in their fourth year of University (90.91%).

Less than half of the participants (45.45%) professed to meditate at various frequencies and forms, the majority of those participants meditate through yoga or Mindfulness based meditation. Of the 22 participants, 13.64% (n = 3) had been diagnosed with a psychiatric disorder. Of those

participants who have a diagnosed psychiatric disorder, 66.67% (n = 2) were currently taking medication.

2.2. Measures

Demographics. A demographics sheet reporting age, gender, current psychiatric disorders, medications and meditation history.

Beck Anxiety Inventory-Trait. The Beck Anxiety Inventory-Trait (BAIT; Kohn et al., 2008) was used to measure the participants' pre and post anxiety levels, with a 21-item self-report questionnaire.

Beck Depression Inventory. To measure the participant's pre and post depression levels, The Beck Depression Inventory (BDI) was used, as it measures symptoms of severity (Beck et al., 1961).

The Storytelling Method. The participants used The Storytelling Method worksheets to interpret their dream and find discovery. The worksheets include five questions in regards to the dream scene the participant is interpreting, with the intention of gaining discovery about waking day life, events, feelings and behaviours. This method has been found to be valid and significant (DeCicco, 2006; 2007a; King & DeCicco, 2007).

Content Analysis. All the participants were asked to hand in a completed Storytelling Method worksheet for one dream they had experienced within the last week before meditation, to measure the pre-condition, and then another completed Storytelling Method worksheet for one dream experienced after one week of meditation, measuring the post condition. After using TSM, they indicated if discovery occurred, and if so, what it was.

The researcher analyzed all dreams using Content Analysis designed by Hall and Van de Castle (1966). Content Analysis uses a scoring system of dream imagery, chosen through themes. There were 8 categories found in this data, which included: Scene changes, Animals, Anxious Emotion, Dark Colours, Violence, Negative Emotion, Family Members and Negative Self-thought. These categories were chosen from previous research, where as anxious imagery has been correlated with animals and scene changes, and depressive imagery has been correlated with dark colours (Jones & DeCicco, 2009; Zanasi et al., 2010). Other categories were chosen because they were frequently observed through the dream content, such as family members, and negative self-thought. All discovery passages were analyzed using Content Analysis with the dream content categories (e.g. animals) as well as new reoccurring categories that were reported. There were 10 categories found in the discovery data, which included: Worry, Goals, Failure, Self-Comparisons (to friends or family), Future, Friends and/or Relationships (boyfriends/girlfriends), Family Members, School, Happy Emotion, and Negative Emotion.

2.3. Procedure

All participants who volunteered in this study were informed of both the purpose, exploring the effects of meditation on mood, and of their right to withdraw from the study at any time. All participants filled out an initial package, which was a pencil and paper task, and included a consent form, demographics sheet, the BDI measure, the BAI-T measure, and TSM worksheet. Both mood measures were labeled as Mood Measure 1 and Mood Measure 2 in an attempt to decrease social desirability. They were asked to use a thera-

pist guided meditation (DeCicco, 2001), which was available on their internal University website used to navigate courses. The audio file was a recording of a therapist guided meditation with specific instructions for the participant. The students were also provided with a Checklist to keep track of their meditation (see appendix A) participation. After one week of Meditation, done twice a day (am/pm), the participants returned and filled out the second package, which included the post measure BDI, BAI-T and TSM worksheet. Participants were asked to bring a dream from the past week, to be included with both TSM worksheets. The participants were fully informed of all potential harm, had all signed a consent form, and were debriefed once the experiment was completed. There was also a Participant Feedback sheet distributed to all participants.

2.4. Analyses

Statistica 7.0 was used for all statistical analyses. All dreams and discoveries were scored using the Hall and Van de Castle guidelines for content analysis.

3. Results

3.1. Dream Imagery

It was expected that waking day depression and anxiety would be reflected in dream imagery (Jones & DeCicco, 2009, Zanasi et al., 2010). Content analysis was conducted on all dream imagery, and expected imagery was observed. Participants experienced anxious dream imagery, in both pre and post conditions. The dream imagery categories observed for anxiety were: Scene Changes (pre = 15.38%, post = 26.92%), Animals (pre = 26.92%, post = 3.85%) and Anxious Emotion (pre = 42.31%, post = 26.92%). The dream imagery categories observed for depression were: Negative Emotion (pre = 23.08%, post = 11.54%), Dark Colours (pre = 7.69%, post = 7.69%) and Violence (pre=15.39%, post=11.54%). Therefore, Hypothesis 1 was confirmed.

3.2. Anxiety, Depression and Dream Imagery

Correlations were conducted on Pre and Post BAI-T scores in relation to dream imagery (see Table 1). Pre-anxiety scores were negatively correlated with negative emotional dream imagery. The correlation between participants anxiety levels (Pre-BAI-T) before one-week of meditation and their negative emotion pre-dream imagery was significant ($r(22) = -.51, p < .05$). There were no statistically significant correlation found between dream imagery and post BAI-T scores. Dream content and BDI scores were also analyzed. Correlations were conducted for all BDI scores and Dream Imagery, no significant correlations were found.

3.3. Meditation

To test hypothesis two, which stated that depression and anxiety scores would decrease after 1 week of meditation (Coppola & Spector, 2009), within-group t-tests were conducted, and the hypothesis was supported. After conducting a t-test on both Pre and Post anxiety and depression measures, it was found that both anxiety ($t(21) = 7.47, p < .001$) and depression ($t(21) = 3.14, p < 0.01$) scores did decrease after one week of meditation (See Table 2 for BAI-T scores & for BDI scores).

Table 1. BAI-T & Dream Imagery Correlations .

Variable	ANX	SC	ANI	NEG	DC	VIOL	PHY	FAM.	PAR	NS
BTPRE	.16	.03	-.09	-.51*	.23	-.11	-.13	-.29	-.06	.10
BTPOS	.01	.19	.14	-.15	.14	.03	-.13	.15	-.09	-.07

Note. BTPRE= BAI-T pre condition; BTPOS= BAI-T post condition; ANX=Anxious Emotion; SC= Scene Changes; ANI=Animals; NEG=Negative Emotion; DC=Dark Colours; VIOL= Violence; PHY= Physical Injury; FAM=Family; PAR= Partners; NS= Negative Self-Though. *p< .05

3.4. Discovery

To test hypothesis three, which stated that 80 percent or more of the participants would have discovery using TSM on their dreams (DeCicco, 2009), the frequency of discovery was calculated, and supported this hypothesis. In the pre-meditation category, 77.27% (n=17) of the participants found discovery using TSM Worksheets for dream interpretation. In the post-meditation category, 90.91% (n=20) of the participants found discovery using TSM Worksheets for dream interpretation.

3.5. Discovery and Dream Imagery

In congruence with Jones and DeCicco (2009), it was expected that participants reporting waking day depression, would differ from those reporting anxiety in meaningful ways. Discovery categories for those reporting anxiety were compared to those reporting depression. The discovery categories that differed were those who reported anxiety also reported Failure, Friendships and Partner related discovery content, supporting hypothesis four.

Additionally, correlations were conducted on dream and discovery content for participants experiencing moderate to high anxiety. For those who scored moderate to high anxiety on the BAI-T in the pre-condition, it was found that family in dream content was significantly positively correlated with goals in discovery [r (13) =.64, p < .05]. There was also a significant relationship found with negative self-thought in dream content and both negative emotions (r (13) =.57, p < .05), and failure (r (13) = .68, p < .05) in discovery content. Physical injury in dream content was correlated to negative emotions in discovery (r (13) = .60, p < .05), and partners seen in dream content were correlated with family members in discovery content (r (13) = .68, p < .05). In summary, dreaming of family members tended to lead to discovery about goals in waking day, dreaming about negative self-talk, led to discovery about negative emotions and failure in waking day, dreaming of physical injury allowed for discovery of waking day negative emotions and dreaming of partners tended to lead to discovery about family.

For those participants who scored moderate to high

anxiety using the BAI-T in the post-condition, there were multiple significant correlations found. Negative emotion in dream content was found to be correlated with both worry (r (6) = 1.00, p < .05), as and goals (r (6) = 1.00, p < .05) in discovery. Similarly, violence in dream content correlated with both worry (r (6) = 1.00, p < .05) and goal setting (r (6) = 1.00, p < .05) in discovery. Finally, Dark Colours and scene changes correlated with both Self Comparisons (r (6) = 1.00, p < .05) and School (r (6) = .88, p < .05) in discovery content.

All of the above correlations are significant and indicate a link between the dream content and discovery between participants.

Likewise, correlations were conducted on dream and discovery content for participants experiencing moderate to high depression. In the pre-condition, it was found that Scene Changes in dream content was significantly positively correlated with both Goals (r (3) =1.00, p<.05) and Happy Emotion (r (3) =1.00, p<.05) in discovery. For those participants who scored moderate to high in depression, in the post-condition, Scene Changes in dream content were correlated with multiple discovery categories, including Worry (r (3) = 1.00, p<.05), Future (r (3) = 1.00, p<.05), Friends (r (3) = 1.00, p<.05) and School (r (3) = 1.00, p<.05). A t-test was conducted on pre and post discoveries, across all variables, and no significant differences were found.

4. Discussion

4.1. Dream Imagery

Overall, the findings of the present study indicate that there is a significant relationship between meditation and changes to dream imagery when measuring waking day trait -anxiety and depression, specifically, both anxiety and depression scores decrease and dream imagery changes. Dream Imagery reflected waking day depression and anxiety with images consistent with previous research, confirming the first hypothesis. Reflection of mood in dream imagery, has been, and continues to be beneficial in clinical settings. If there are many scene changes and animals, this may indicate the clients' anxiety may be increasing.

Table 2. Pre and Post scores for BAI-T & BDI

Variable	Pre Condition		Post Condition		t(21)
	M	SD	M	SD	
BAI-T	21.64	14.31	10.73	11.31	7.47***
BDI	10.64	9.58	8.05	8.76	3.14***

Note. SD= Standard deviation; BAI-T=Beck Anxiety Inventory-Trait; BDI=Beck Depression Inventory. *p<.05 **p<.01 *** p<.001

4.2. Anxiety, Depression and Dream Imagery

This study showed that participants who scored moderate to high on the BAI-T before meditation had less negative affect in their dream content. This result appeared surprising initially, but with further thought, this can be explained by the fact that a trait measure of anxiety was used rather than a state measure and therefore, people who are anxious most of the time have less negative dream emotion as negative emotion has become their normal state.

4.3. Meditation

Both the BAI-T and BDI scores are categorized as low, moderate or high. There was a significant decrease of anxiety scores from the pre to post condition, such that anxiety decreased after one week of meditation from moderate to minimal levels of anxiety. Depression scores significantly decreased from a mild mood disturbance to normal as well. A mood disturbance caused from regular daily stressors is considered normal. This illustrates support for the second hypothesis; meditation was beneficial and led to a significant decrease in both anxiety and depression. Although this has been seen repeatedly in past research, it is interesting that just one week of meditation, twice a day, resulted in significant decrease in mood disturbances and illustrates how beneficial meditation is.

4.4. Discovery

Discovery acquisition was greater for participant after meditation in comparison to before, which implied that as the participants' mood improved, their discovery increased as well. This is interesting for clinical practice as therapists and clients may be able to use TSM to judge if their treatment is effective. This is consistent with previous findings that people high in anxiety have difficulty finding discovery in their dreams, as was the case in the pre-condition. However, as anxiety decreased, discovery increased, which can be seen in the post-condition.

4.5. Discovery and Dream Imagery

The correlations showed partial support for the assumption discovery for participants reporting waking day depression, would differ from those reporting anxiety (Jones & DeCicco, 2009). An example of this relationship is that participants, who scored moderate to high anxiety on the mood measure and experienced Negative Self-Thought in their dream content, also found Negative Emotions and Failure in their discoveries. An example of failure was setting a goal of reading one book per week, but the participant failed to meet that goal. In relation to the Continuity Hypothesis (DeCicco, 2007; DeCicco, Lyons et al., 2010; King & DeCicco, 2009), if participants experience negative self-thought in waking day, this will be replicated in dream content. For those participants who are highly anxious, Failure and Negative Emotion content in discovery seems warranted. Participants dream content and discovery were also correlated for those who scored moderate to high anxiety on the post mood measure. Frequent Scene changes and Dark Colours in dream content were significantly correlated with Self-Comparisons in discovery. Accordingly, Frequent Scene changes have been noted as anxious imagery in Hall and Van de Castle (1966) content analysis, and Dark Colours have been related to negative affect and depression (DeCicco, 2007).

4.6. Limitations

Some of the limitations of this study were sample size and a specific mood measure. The sample size at twenty-two, was probably the greatest limitation to this study. The low sample size, led to a low number of dreams collected and therefore dreams under 50 words were not removed from the data, as suggested by the Hall and Van de Castle system of Content Analysis (1966).

Furthermore, the Beck Anxiety Inventory-Trait measure was used to score participants for anxiety. The BAI-T measure was chosen because it controls for contamination of depression, but it also measures for Trait Anxiety, which is prolonged and continuous anxiety. The participants in this study were students, and many students experience State Anxiety, due to the stressors of every day life. Using the BAI-T to measure Trait Anxiety, rather than the Beck Anxiety Inventory (BAI) to measure State Anxiety may have influenced the results, due to the demographics of the sample.

4.7. Future Research

After finding many correlations between dream imagery and discovery, it is apparent that there is a connection between mood affect and dreams. A predictive method between dream imagery and discovery for university students who score moderate to high on an anxiety or depression measure should be explored further. Furthermore, although mood did significantly improve over only one-week of meditation, it would also be interesting to conduct the study over a longer duration, to observe the progression of dream imagery over time. Conducting a study over a one-month period, collecting dreams every week, may allow for a better understanding of dream imagery and the effects of meditation on dream imagery.

4.8. Conclusion

This study was conducted to examine if there is a definite influence of meditation, even over a short time period, such as one week, on mood and dream imagery. Meditation significantly decreased both anxiety and depression and there were also many significant correlations between pre and post dream imagery, as well as discovery. Prior to practicing meditation twice a day for one week, those participants who experienced anxiety and dreamt of negative self-thought, were more likely to make negative emotion and failure-oriented discoveries. This allows us to see that when anxious, Negative Self-Thought imagery leads to negative dreams and as such, negative discoveries. As the Continuity Hypothesis explains, waking day experiences influence dreaming experiences. Therefore, if we can help with clients' anxiety, through methods such as meditation, this should decrease the negativity in both their dreams and waking day lives. Multiple scene changes and dark colours, which have historically been associated with dream imagery of those suffering from a mood disorder, were correlated with self-comparisons and school related discoveries. Goal-orientation, achievement and school are all common themes and waking day experiences for students; therefore, this further strengthens the Continuity Hypothesis.

Dream research is a growing and is increasingly utilized by clinicians. Meditation has been practiced for centuries and can be seen in treatment programs for many different illnesses. This study highlights the importance of both dream

research as well as meditation, in both physical and psychological health spectrums. There is much more future research to be conducted, in hopes that clinicians and health care practitioners begin to incorporate dream research into their practice.

References

- Bahrke, M. S., & Morgan, W. P. (1978). Anxiety Reduction Following Exercise and Meditation. *Cognitive Therapy and Research*, 2(4), 323-333. doi: 10.1007/BF01172650
- Barcaro, U. (2010). *The Interwoven Sources of Dreams*. London: Karnac Books.
- Beck, A. T., Ward, C. H., Mendelson, M., Mock, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry*, 4, 561-571. doi:10.1001/archpsyc.1961.01710120031004.
- Brown, L. F., Davis, L. W., LaRocco. V. A., & Strasburger. A. (2010). Participant Perspectives on Mindfulness Meditation Training for Anxiety in Schizophrenia. *American Journal of Psychiatric Rehabilitation*, 13, 224-242. doi: 10.1080/15487768.2010.501302
- Burns, J. L., Lee, R. M., & Brown, L. J. (2011). The Effect of Meditation on Self-Reported Measures of Stress, Anxiety, Depression, and Perfectionism in a College Population. *Journal of College Student Psychotherapy*, 25, 132-144. Retrieved from ProQuest Database. doi: 10.1080/87568225.2011.556947
- Coppola, F., & Spector, D. (2009). Natural Stress Relief Meditation as a Tool for Reducing Anxiety and Increasing Self-Actualization. *Social Behavior and Personality* 37(3): 307-312. doi: 10.2224/sbp.2009.37.3.307
- DeCicco, T. L. (2007). Dreams of Female University Students: Content Analysis and the Relationship to Discovery via the Ullman Method. *Dreaming*, 17 (2), 98-112. doi: 10.1037/1053-0797.17.2.98
- DeCicco, T. L. (2009). *The Giant Compass: Navigating Your Life With Your Dreams*. USA: Malito Press.
- DeCicco, T. L., Lyons, T., Pannier, W., Wright, C., & Clarke, J. (2010). Exploring the Dream of Women with Breast Cancer: Content and Meaning of Dreams. *International Journal of Dream Research*, 3 (2), 104-110.
- Delmonte, M. M. (1985). Meditation and Anxiety Reduction: A literature Review. *Clinical Psychology Review* (5): 92-102. DOI:10.1016/0272-7358(85)90016-9.
- Fergus, T. A., Valentiner, D. P., McGrath, P. B., & Jencius, S. (2010). Shame-and guilt-proneness: Relationship with anxiety disorder symptoms in a clinical sample. *Journal of Anxiety Disorders*, (24), 811-815. doi: 10.1016/j.janxdis.2010.06.002
- Hill, C. E. (2003). The 2002 Leona Tyler Award Address: Working With Dreams: A Road to Self-Discovery. *The Counseling Psychologist*. 31 (3): 362-372. doi: 10.1177/0011000003031003009
- Howard, K. M. (2003). The dreamer's use of space. Training and Supervising Analyst, Boston Psychoanalytic Society and Institute; Instructor in Psychiatry, Harvard Medical School. 53(4): 1205-1234. doi: 10.1177/00030651050530041001
- Hranov, L. G. (2007). Comorbid anxiety and depression: illumination of a controversy. *International Journal of Psychiatry in Clinical Practice*, 11(3), 171-189. doi: 10.1080/13651500601127180.
- Jones, E., & DeCicco, T. L. (2009). Differentiating Anxiety and Depression Using The Storytelling Method of Dream Interpretation and Content Analysis. Paper Presentation at the 26th Annual Conference of the International Association for The Study of Dreams, Chicago, Ill.
- King, D. B., & DeCicco, T. L. (2007). The Relationships Between Dream Content and Physical Health, Mood and Self-Construal. *Dreaming*, 17 (3), 127-139. doi: 10.1037/1053-0797.17.3.127
- King, D. B., & DeCicco, T. L. (2009). Dream Relevance and the Continuity Hypothesis: Believe It or Not? *Dreaming*, 19 (4), 207-217. doi: 10.1037/a0017612
- Kohn, P. M., Kantor, L., DeCicco, T. L., & Beck, A. T. (2008). The Beck Anxiety Inventory-Trait (BAIT): A Measure of Dispositional Anxiety Not Contaminated by Dispositional Depression. *The Journal of Personality Assessment*, 90 (5), 499-506. doi: 10.1080/00223890802248844
- Lovas, D. A., & Barsky, A. J. (2010). Mindfulness-based cognitive therapy for hypochondriasis, or severe health anxiety: A pilot study. *Journal of Anxiety Disorders*, 24, 931-935. doi: 10.1016/j.janxdis.2010.06.019
- Maggiolini, A., Cagnin, C., Crippa, F., Persico, A., & Rizzi, P. (2010). Content Analysis of Dreams and Waking Narratives. *Dreaming*, 20(1), 60-76. doi: 10.1037/a0018824
- Rainville, R. E., & Rush, L. L. (2009). A Contemporary View of College-Aged Students' Dreams. *Dreaming*, 19(3), 152-171. Doi: 10.1037/a0017086
- Restifo, K., & Bogels, S. (2009). Family processes in the development of youth depression: Translating the evidence to treatment. (2009). *Clinical Psychology Review*, 29, 294-316. doi:10.1016/j.cpr.2009.02.005
- Schredl, M. (2009). Dreams in patients with sleep disorders. *Sleep Medicine Review*. 13, (3), 215-221. doi:10.1016/j.smrv.2008.06.002
- Schredl, M., Berger, M., & Riemann, D. (2009). The effect of trimipramine on dream recall and dream emotions in depressive outpatients. *Psychiatry Research*, (167), 279-286. doi: 10.1016/j.psychres.2008.03.002
- Schreiner, I., & Malcolm, J. P. (2008). The Benefits of Mindfulness Meditation: Changes in Emotional States of Depression, Anxiety and Stress. *Behaviour Change*, 25 (3), 156-168. DOI: 10.1375/bech.25.3.156.
- Sharp, L. K., & Lipsky, M. S. (2002). Screening for Depression Across the Lifespan: A review of Measures for Use in Primary Care Settings. *American Family Physician*, 66(6), 1001-1008.
- Suveg, C., Morelen, D., Brewer, G. A., & Thomassin, K. (2010). The Emotion Dysregulation Model of Anxiety: A preliminary path analytic examination. *Journal of Anxiety Disorders*, 24, 924-930. Doi: 10.1016/j.janxdis.2010.06.018.
- Yu, C. K. (2010). Recurrence of Typical Dreams and the Instinctual and Delusional Predispositions of Dreams. *Dreaming*, 20(4): 254-279. DOI10.1037/a0020879
- Zanasi, M., DeCicco, T.L., Murkar, A., Longo, G., & Testoni, F. (2010). Waking day anxiety and dreams: Dream content and predictors in Italian and Canadian samples. *International Journal of Dream Research*, 3(Supplement 1), 12-13.