Manifestation of dreams in anxiety and depressive tendencies

Shrutika Mishra, and Prashasti Jain

Manipal University Jaipur, Jaipur, Rajasthan, India

Summary. Dreams are characterized by cognitive, sensory, and emotional instances that occur during the state of sleep. They are a universal human experience. The intention of this study is to determine the impact of Dream Variables (Nightmare/ Dream content, Dream Intensity, Dream Tone, Dream Recall, Nightmare Frequency, and Nightmare Distress) on Individuals with Anxiety and Depressive Tendencies. For this study, the data was collected using Convenient Sampling and Snowball Sampling (*N*=120). The assessment of dream variables and anxiety and depressive tendencies was done using MADRE Dream Questionnaire and DASS-21. The statistical analysis using Pearson r Correlation revealed that Dream Tone is negatively correlated to Anxiety and Depressive Tendencies, while there is a positive correlation with Nightmare Frequency and Nightmare Distress. A significant association was not found with Dream Intensity and Dream Recall. Furthermore, through ANOVA it was revealed that Individuals with Anxiety and Depressive Tendencies experience Dream Variables much differently than the Non-Clinical Population. They are more likely to experience negatively toned and intense dreams with more negative dream themes like death and abandonment. Additionally, they are also more prone to experiencing frequent nightmares as well as experiencing nightmare distress that continues in the waking state of consciousness.

Keywords: Dream Content, dream Intensity, dream Tone, dream Recall, nightmare Frequency, nightmare Distress, anxiety and depressive tendencies.

1. Introduction

Dreams are characterized by cognitive, sensory, and emotional instances that occur during the state of sleep, and they are a universal human experience. The ambiguity of dreams has led to multiple definitions and interpretations of what dreams are and what their creation intends to be. Freud (1965) believed dreams to be a window to the unconscious desires, emotions, and repressed memories. Carl Jung (1974) defined dreams to be compensation for the waking life, where the individual seeks being whole or complete. Haffner, as reported by Freud (1965), stated that there is a very fine line that connects our waking conscious to our unconscious state, this thin line of continuation is dreaming. Through the various theories and studies, we can understand that the process of dreaming has certain aspects to it, these aspects of dreaming are called Dream Variables. For the purposes of the present study, the following seven Dream Variables will be considered. First, *Dream Content* - Dream content is referred to what the individual sees in the dream (Freud, 1965). It consists of the dreamer, the people around, the location, objects, and events that occur. Freud's (1965) Theory of Dreams mentions two kinds of dream content. One, Manifest Dream Content, it consists of all the images and visuals that can be recalled by the conscious mind of the individual. The individual is cognitively aware and remembers this content upon waking. The Latent content of the dreams is the essential concealed meaning that the unconscious is projecting. The meaning is masquerading in symbols that can be recognised in the conscious mind, this allows the individual to understand the meaning behind the theme content. Second, *Dream Tone* - Tone is the indicator of the feelings, emotions, and attitudes in the dream (Schredl et al.,2002). Dream tones can be positive, negative, or neutral. Positive dream tones include positively weighed emotions and the dream content is also something that is joyful for the dreamer. Negative dream tone produces negative emotions like grief, anger, frustration etc. within the dreamer. The content is also negatively drawn and is just perceived as unpleasant. Neutral dream tone does not evoke either of the emotions and continues to be neutral and unaffecting. Third, *Dream Intensity* - Dream intensity refers to the magnitude at which the emotions and feelings were expressed in the dream content and the level of magnitude at which the dreamer experiences them even after waking up (Yu, 2011). The dream intensity determines whether a dream is a bad dream or a nightmare. This difference in the intensity of the dreams can either lead to discontinuation of the sleep abruptly (nightmares) or continuation of the sleeping state (bad dream) (Hasler & Germain, 2009). Fourth, *Dream Recall* – It is the ability to remember and recall the contents of the dream after waking up, furthermore, the frequency of dream recall is determined by the length of the REM sleep, quality of the sleep, frequency of nocturnal awakenings (Schredl, 2007). Fifth, *Nightmare* - An intense and highly negatively toned dream that is formed due to an emotional response from the brain (Roberts et al., 2009). They are a manifestation of bad emotions and feelings of fear, anxiety, despair, abandonment etc (Freud 1965). Night-

Corresponding address:
Shrutika Mishra, Manipal University Jaipur, Jaipur-Ajmer Express Highway, Dehmi Kalan, Near GVK Toll Plaza, Jaipur, Rajasthan 303007, India.
Email: shrutika.mishra98@gmail.com

Submitted for publication: January 2024
Accepted for publication: April 2024
DOI: 10.11588/ijodr.2024.1.102481

mares are considered to be a part of the bad dreams; however, they can be distinguished from them. Even though bad dreams are negatively toned and can create negative emotions in the individual they do not typically lead to breaking of the sleep and abruptly waking up. On the other hand, the body has a high physiological response to nightmares that causes the individual to brusquely arouse and discontinue the sleep. Sixth, *Nightmare Frequency* - The recurrent rate at which an one experiences nightmares is known as the Nightmare Frequency. In children, between the age 5-12 years, experience nightmares around 20% to 30% out of the total number of dreams recalled. While adults usually experience nightmares between 8% to 30% out of the total number of dreams recalled (Peter, Penzel & Jörg, 2007). Seventh, *Nightmare Distress* - The dream content of the nightmares can contain situations which manifest psychological as well as physical terror creating discomfort and panic (Roberts et al., 2009). Being woken up precipitously from a nightmare often results in distress and uncomforted that can cause difficulty in falling asleep again for at least some period of time (Yu, 2007). Nightmares can have an extended and dysphoric nature and are highly associated with well-being and psychopathology (Böckermann, Gieselmann, & Pietrowsky, 2014). The distress experienced due to nightmares can be manifested in the intensity of the negative emotional tone and contents of the dream. These contents continue to affect the individual in the waking state (Levin & Fireman, 2002). The frequency of mood being affected due to dreams tends to be high in individuals who experience frequent nightmares. Nightmare related symptoms like anxiety, depressive episodes and stress can be also experienced if the nightmares continue to be frequent and disturbingly negative (Böckermann, Gieselmann, & Pietrowsky, 2014).

Review of Literature

Dreaming in Anxiety

Freud (1965) claimed anxiety to a function of the conscious mind and that it belongs to consciousness, however, as previously discussed, wish belongs to the unconscious mind and both of them interact to create dreams. Wish fulfilment can manifest anxiety in latent dream content like dreaming about nakedness in public domain, death of a loved one, and failing at an important task. Jung (1974) theorised the compensation in the dreams content and hence, presence of anxiety in dream content and frequent nightmares are representing a vital aspect of waking self, especially the dark shadows of our personality we are not ready to encounter or confront. Studies have concluded that High trait anxiety creates dream content with themes which are depressive and sad. Furthermore, the content is realistic consisting threats similar to waking life, including unfriendly and unpleasant interactions with known people. In General Anxiety Disorder comorbid with Specific Phobia, nightmares are recurrent and follow a very specific theme revolving around the object of phobia or representation of the phobia in some other way. This recurrence of nightmares tends to be highly negative, can even become dysphoric, violent, and antagonistic towards the dreamer, in turn leading to higher dream anxiety (Brown and Donderi, 1986). Individuals who have Social Anxiety experience highly frightening and fearful consisting of authority figures and social situations which the dreamer might find dreadful. The symbolism in the dream and the associative manifestation of these unpleasant situations are related to appalling early adolescence or childhood experiences (Khodarahim, 2009). Roberts, Lennings and Heard (2009) examined the theoretical basis that claimed that nightmares are delineate one's most anxious, fearful and stress thoughts or events. Hence, creating more stress and anxiety within the individual and draining their energy. Suggesting that nightmare distress can cause further problems for individuals with anxiety. Sikka, Pesonen and Revonsuo (2018) studied the association of waking wellbeing with dreams of individuals with psychopathology. The wellbeing was determined in both non-clinical population and individuals with psychopathology by assessing their peace of mind. Through multilevel analysis they found that negative affect in the dream content was associated with symptoms of anxiety. It was implicated that the waking state of anxiety influenced the affect or tone of the dreams to be negative. Another study found that, individuals with high anxiety experience negative affect because of the negative tone of the nightmare throughout the next day, and also experience higher nightmare distress and increased nightmare frequency (Nguyen, 2002).

Dreaming in Depression

Individuals with depressive tendencies often dream about misfortunes, failures, and death. The dream content is more often of negative affect, and the individuals play a passive role in their dreams compared to average dream content where the self is usually the protagonist of the dream play. The themes experienced by individuals with depression tend to be highly masochistic involving harmful themes, painful experiences, rejections, failures, disappointments, and injury (Beck, 1961). Nightmare distress is found to be related to the waking emotional adjustment of the individual. Individuals with higher score in depression are more likely to have nightmare distress. The intensity of the dreaming processes is linked to the frequency at which the individual has nightmares. The higher the frequency the more the intensification of the dreams (Belicki ,1992). Studies show the relation of melancholic features and suicidal attempts with dream variables- nightmares and quality of sleep. (Ağargün et al, 2003). Furthermore, individuals with Recurrent Depressive Disorder experience frequent nightmares and also and increased noted suicidal attempts and ideation. (Marinova et al, 2014). There is also indication that there is an association between depressive illness and frequency of nightmares, people with depressive tendencies are more likely to experience frequent nightmares (Celestine Okorome Mume, 2009). Nightmares and negatively toned dreams also are a major risk factor for detecting and determining possible Self Harmful Thoughts and Behaviours (SHTB). Repeated and recurrent nightmares damage the regulation of normal emotions within the individual who is dreaming, enhancing negative affect upon waking. (Hochard et al., 2015). The American Academy of Sleep Medicine (2014) researched that there is an increased rate of suicidal ideation in individuals who have nightmare disorder, some have even attempted it. However, the directionality of the relationship is still unclear regarding which follows what. Dreaming in depression has also been linked to highly emotional tones, frequency, and distressing nature of dreams. that individuals who have Major Depressive Disorder or depressive tendencies often dream about misfortunes, failures, and death. The dream content is more often of negative affect, and the individuals

play a passive role in their dreams compared to average dream content where the self is usually the protagonist of the dream play. The affective content of the dreamer with depressive tendencies is likely to be more congruent to vacillation or indecision that is experienced in their conscious or waking state and they are also less likely to recall their dreams due to the flattening or inhibition of the dream content experienced (Carr, 2016).

2. Method

2.1. Sample

Purposive or Selective Sampling method were used to gather willing participants. This sampling method was employed since there was a well-defined understanding of the particular traits this paper aims to study. The total number of participants who completed the survey questionnaire was 120. Age of participants was considered as one of the inclusion criteria. The participants between the age of 18-35 years were recruited. Another criterion of selection was clinical history of anxiety and depression. Participants with history of clinical diagnosis of Anxiety and Depression, and individuals who are currently taking medication regarding the same were excluded from the study to prevent any interference on the results of the study. Out of the 120 participants, 82 were Females, 6 were Non-Binary, and 32 were Males. The participants were differentiated and grouped based on the results of the DASS21 Scale and two groups were created: One, individuals with anxiety and depressive tendencies. Two, non-clinical population. 64 participants have mild – extremely severe tendencies of anxiety and depression, and 56 participants scored in the normal range of the DASS-21 Scale.

2.2. Materials and Tools Used

To determine the dream variables The Mannheim Dream questionnaire (MADRE) developed by Schredl, Berres, Klingauf, Schellhaas, & Göritz in 2014, was used. MADRE uses different scales to measure the Dream Variables. For Dream Frequenncy, there is a seven-point scale ranging from Never (coded as 0 points) to Almost every day (coded as 6 points). Emotional Intensity is measured on five- point scale ranging from Not at all Intense (coded as 0 points) to Very Intense (coded as 4 points). Dream Tone is measured in 5 categories ranging from Very Negative (coded as -2) to Very Positive (coded as +2). An eight- point scare range is used to measure measuring Nightmare Frequency and Lucid Dreaming Frequency, this ranges from Never (coded as 0) to Several Times a Week (coded as 7). Finally, Nightmare Distress is measured on five- point scale ranging from Not at all Distressing (coded as 0) to Very Distressing (coded as 4). The Cronbach's alpha score of MADRE is r = 0.910, affirming strong internal consistency (Schredl et al., 2014).

To determine the presence of anxiety and depressive symptoms, Depression Anxiety & Stress Scales 21 item questionnaire (DASS-21) developed by Lovibond & Lovibond in 1995, was used. The range of raw scores for Anxiety are categorised as - Normal (0 to 3), Mild (4), Moderate, (5 to 7), Severe (8 to 9), Extremely Severe (10 and above). The range of raw scores for Depression are categorised as - Normal (0 to 4), Mild (5 to 6), Moderate, (7 to 10), Severe (11 to 13), Extremely Severe (14 and above). The scale of internal reliability of DASS 21 is r= .93 which indicates good reliability. The Cronbach's alpha scores of DASS 21 were as follows: anxiety at 0.80, depression at 0.80, stress at 0.77, and the overall scale at 0.88. Furthermore, the combined anxiety and stress constructs yielded a Cronbach's alpha of 0.82, further affirming strong internal consistency (Da Silva et al., 2016).

2.3. Statistics

To study the correlation between anxiety and depressive tendencies with the Dream Variables of dream content, dream recall, nightmares, nightmare content, and impact on mood the Pearson r Correlation was used. The correlation

Table 1. Frequency distribution of the dream content in both the groups.

Nightmare Content Theme	Responses of Group A	Percentage	Responses of Group B	Percentage
1.Death	13	12.8 %	11	20.37 %
2. Teeth	5	4.95 %	1	1.85 %
3. Flying	3	2.97 %	1	1.85 %
4. Falling	9	8.9 %	6	11.11 %
5. Being Chased	10	9.9 %	5	9.26 %
6. Family Related Trauma (except death of a loved one)	5	4.95 %	2	3.70 %
7. Trapped	7	6.93 %	0	0 %
8. Ghosts	11	10.89 %	5	9.25 %
9. Monsters	5	4.95 %	2	3.70 %
10. Animals	10	9.9 %	7	12.96 %
11. Mythical/ Fictional Creatures	6	5.94 %	2	3.70 %
12. Nakedness	7	6.93 %	1	1.85 %
13. Water (sea, drowning etc.)	2	1.98 %	1	1.85 %
14. Fire (Burning)	4	3.96 %	1	1.85 %
15. Aloneness (abandonment, lost, stranded, isolated)	4	3.96 %	9	16.67 %
Total Number of Responses	101		54	
Number of People Who Did Not Answer	8		13	

was computed separately for Group A and Group B. The two groups were then compared using Analysis of Variance (ANOVA) Single Factor to determine if there is a significant difference in the results of the two groups in all the Dream Variables. A Content Analysis was done to determine the most recurring dream content in both of the groups and a frequency table was created. Lastly, the participants who were grouped in the Anxiety and Depressive Tendencies were further divided into three groups based on Gender Identity. The three subgroups were Female, Male, and Non-binary. To measure if there are any gender-based differences an ANOVA Single Factor was done to compare the scores of the Dream Variables.

3. Results

Once the data was collected, the participants were divided into two groups: One, individuals who have scored either mild, moderate, severe and/or extremely severe in the anxiety and/ or depression domains (Group A, *N*= 64). Two, who scored in the normal range in both anxiety and depression domains (Group B, *N*= 56). To determine the difference between both the groups, Analysis of Variance (ANOVA) Single Factor was used.

The Table 1, instantiates the frequency at which the dream content and themes repeated in the participants. In Group A, individuals with anxiety and depressive disorder, there were a total of 101 dreams reported and 8 participants within the group did not respond to this question. The highest reported recurring nightmare was the *death of self or a loved one* (12.8%). Death is followed by the sighting of *ghosts, animals, flying, and being chased*. Some participants have reported dreaming about *teeth* (6.93 %), including falling of teeth, finding a set of teeth etc. The lowest reported dream theme in Group A included *water* and scenarios of water bodies, drowning, and flooding, and *flying*. In Group B, the non-clinical population, there were a total of 54 responses and 13 participants within the group did not respond to this question. The highest reported recurring nightmare was also the *death of self or a loved one*, followed by dreams about *falling*.

The Table 2 instantiates the ANOVA done on Dream Content of Group A and Group B. The ANOVA results revealed that Group A (*M*= 6.73, *SD*= 10.5) and Group B (*M*= 3.6, *SD*= 11.4) the *F* (1,28) is 6.77 and the *p*-value is 0.014. This indicates that is a statically evident difference in the Dream Content of individuals with anxiety and depressive tendencies and the non-clinical population.

4. Discussion

4.1. Correlation Between the Dream Variables and Individuals with Anxiety and Depressive Tendencies

Once the data was collected, the participants were divided into two groups: One, individuals who have scored either mild, moderate, severe and/or extremely severe in the anxiety and/ or depression domains (Group A, *N*= 64). Two, who scored in the normal range in both anxiety and depression domains (Group B, *N*= 56). The following section focuses on Individual who have either anxiety tendencies or depressive tendencies or both of them. This section explores the correlation of four Dream Variables: Dream Intensity, Dream Recall, Nightmare Frequency and Nightmare Distress with the score of DASS-21 of Individuals with Anxiety and Depressive Tendencies.

Dream Variable-Dream Intensity: The Pearson r Correlation score of Dream Intensity and DASS-21 score is 0.137 and the P-Value is 0.283, indicating that there is no correlation between Dream Intensity and DASS-21 score. This, however, contradicts the finding of several previously done studies. Individuals who have symptoms of anxiety are more prone to experiencing emotional dysregulation in the waking state, this can further affect their peace of mind, which in turn causes an enhanced and increased emotional regulation during sleeping state affecting the content of the dreams to be intense and negative (Sikka, Pesonen & Revonsuo, 2018). Dream Tone: The Pearson r Correlation score of Dream Tone and DASS-21 score is -0.300 and the P-Value is 0.016. There is a partial correlation between the Dream Tone and DASS-21 score. This correlation is nega-

Table 2. ANOVA for dream variables between the two groups.

Dream Variable	Source of Variation	Sum of Squares	Degree of Freedom	Mean Square	P-Value
Nightmare Content	1. Between Group	73.63	1	73.63	0.014
	2. Within Group	304.53	28	10.88	
	3. Total	378.17	29		
Dream Intensity	1. Between Group	3.99	1	3.99	0.059
	2. Within Group	131.16	119	1.10	
	3. Total	135.14	120		
Dream Tone	1. Between Group	4.69	1	4.69	0.012
	2. Within Group	85.87	119	0.72	
	3. Total	90.56	120		
Dream Recall	1. Between Group	8.37	1	8.37	0.071
	2. Within Group	302.24	119	2.53	
	3. Total	310.61	120		
Nightmare Frequency	1. Between Group	259.65	1	256.65	0.00019
	2. Within Group	2076.49	119	17.44	
	3. Total	2336.15	120		
Nightmare Distress	1. Between Group	83.02	1	83.02	0.00008
	2. Within Group	600.08	119	5.04	
	3. Total	638.107	120		

tive that indicates that the higher the anxiety and depressive score on DASS-21 more negative the dream tone will be. Therefore, establishing a negative correlation and indicating that individuals with anxiety and depressive tendencies have more negatively toned dreams consisting of more undesirable dream content. It can be seen in studies that individuals who have depressive tendencies are more likely to experience dreams that revolve around misfortune, failures, and death (Carr, 2016). Furthermore, individuals who have symptoms of anxiety have dreams with content that consists of threats similar to waking life, including unfriendly and unpleasant interactions with known people or injurious and aggressive acts being done to the dreamer (Brown & Donderi, 1986, King & Decicco, 2007). Studies have related the negative tone and emotions in dreams to high fear and high levels of anxiety in the waking life (Yu, 2007). This is also seen in the Dream Content section of the questionnaire as individuals who scored high on anxiety and depression described their nightmares revolving around dreams around the death of a loved one or themselves, being chased, and or being abandoned. Hence, there is a negative correlation between Dream Tone and Anxiety and Depressive Symptoms. Dream Recall: The Pearson r Correlation score of Dream Recall and DASS-21 score is -0.18 and the P-value is 0.147, indicating that there is no correlation between Dream Recall and Anxiety and Depressive Symptoms. However, previous studies have revealed that there is a negative association between the dream variable of recall and depressive tendencies. The rate and frequency of recalling dreams in individuals with depression were found to be extremely low (Armitage, Rochlen, Fitch, Trivedi & Rush 1995). Nightmare Frequency: The Pearson r Correlation score of Nightmare Frequency and DASS-21 score is 0.478 and the P-Value is <.001. Signifying that there is an evident relation and a positive correlation between high scores of DASS -21 and Nightmare Frequency. This indicates that the more the individual has anxiety and depressive symptoms the more likely they are to have frequent nightmares. Studies have repeatedly reported that individuals with an anxiety disorder or symptoms of anxiety are more likely to have nightmares when compared to individuals who do not have any symptoms of psychopathology (Picard-Deland et al., 2018). Similar results were also seen in children who exhibited symptoms of anxiety as they too had a higher frequency of nightmares (Kung et al., 2012). The prevalence of nightmare has been evidenced in individuals who are patients of Major Depressive Disorder when compared to the general population (Mume, 2009). Hence, it can be stated that there is a positive relation between Nightmare Frequency and Anxiety and Depressive Symptoms. Nightmare Distress: The Pearson r Correlation score of Nightmare Distress and DASS-21 score is 0.326 and the P-Value is <.001, signifying that the correlation between the two is a positive correlation. This indicates that the more the individual has anxiety and depressive symptoms the more likely experience distress during the day after experiencing a nightmare. The mood of the individuals is affected in the waking state for longer periods of time. Previous research has shown a considerable association between Nightmare distress and anxiety as individuals have reported unpleasant dream memories which impact the regulation of their mood throughout the waking period the next day (Blagrove, Farmer & Williams, 2004). Furthermore, repeated - recurrent nightmares damage the regulation of normal emotions within the individual who is dreaming, enhancing negative affect upon waking. It was also revealed that nightmares are dys-regulators of emotions obstructing normal mood. They often caused post-sleep negative affect and can serve as strong predictors of experiencing post-sleep Self Harmful Thoughts and Behaviours (SHTB). It was seen that people who experienced relatively fewer nightmares were less prone to post-sleep SHTB (Hochard et al., 2015). Hence, it can be stated that there is a positive relation between Nightmare Distress and Anxiety and Depressive Symptoms. Furthermore, correlation was witnessed within the Dream Variables. First, there is a high positive correlation between Dream Intensity and Nightmare Frequency. Indicating that individuals who experience high dream intensity are also likely to experience higher nightmare frequency. Second, there is a positive correlation between dream Nightmare Frequency and Dream Recall, indicating that individuals who experience a high frequency of nightmare can recall dreams more. Third, there is a negative correlation between dream Nightmare Frequency and Dream Recall, indicating that Dream is negatively correlated to Nightmare Frequency, the more the individual has nightmares the more negative the dream tone is. Fourth, a positive correlation is seen between Dream Recall and Nightmare Distress, indicating that people who experience negative affect after having a nightmare tend to be better able to recall the dreams. Fifth, a positive correlation is seen between Nightmare Frequency and Nightmare Distress, indicating the positive correlation between nightmare distress and nightmare frequency, hence, people who have a higher frequency of nightmares also tend to have their mood negatively affected due to the nightmare even in the waking state more frequently.

4.2. Difference in the Dream Variables of Non-Clinical Population and Individuals with Anxiety and Depressive Tendencies.

The participants were asked to fill in the DASS-21 scale to determine the presence of any symptoms or tendencies of anxiety and depression. On the basis of the scores, two groups were created: One, individuals who have scored either mild, moderate, severe and/or extremely severe in the anxiety and/ or depression domains (Group A, *N*= 64). Two, who scored in the normal range in both anxiety and depression domains (Group B, *N*= 56).

Nightmare Content

The highest reported recurring nightmare was the *death of self or a loved one* in both Group A and Group B, Freud (1965) mentioned the reversal of wish fulfilment when the dream itself gives a sense of anxiety and worry. An individual dreaming about death is actually wishing for death to not occur or to prevent the death from happening. Group A participants have reported dreaming about *teeth* (6.93%), including falling of teeth, finding a set of teeth etc., however, 0% of participants from Group B reported dreams regarding teeth. These findings are supported by previous studies that found individuals who dreamt about teeth exhibited significantly higher levels of anxiety and depression, possessed weaker ego resilience, expressed lower life satisfaction, perceived a reduced sense of control over their lives, and experienced feelings of helplessness more frequently (Coolidge & Bracken, 1984). The lowest reported dream theme in Group A included *water* and scenarios of water bodies, drowning,

and flooding, and *flying*. According to Simulation Dream Theory, individuals with social anxiety are more vulnerable to having dreams about adverse social situations and problems to allow the individuals to be prepared for them if even faced in real life. People with anxiety and depression have a higher tendency to have threatening situations (Rimsh & Pietrowsky, 2019). In Group B, the highest reported recurring nightmare was also the *death of self or a loved one*, followed by dreams about *falling*, falling is known to be the most common dream or nightmare that people tend to have (Weinstein, Campbell & Vansteenkiste, 2018).

Inferential statistics of ANOVA was done on the two groups to determine the differences in Dream Variables. The results, as seen in Table 2, indicate that, there is a statically evident difference in the Dream Content of individuals with anxiety and depressive tendencies and the non-clinical population. Studies have unveiled that, individuals with issues related to anxiety tend to dream more about themes of being chased, nakedness in public, aggressive attacks on self, experiencing misfortunes, failures, and other stressful and nerve-wracking social situations (Rimsh & Pietrowsky, 2019). While individuals with depressive tendencies tend to have more passive content related to unpleasant themes like death and morbidity (Carr, 2016). In the non-clinical population, studies have found four themes common in males and females college students that are: studying/school-related, sexual experiences, being chased and falling (Nielsen et al, 2003). The ANOVA done on Dream Intensity of Group A and Group B revealed that Group A (M= 2.292, SD= 1.08) and Group B (M= 1.92, SD= 1.12) the F (1,28) is 3.61 and the p-value is 0.059. Therefore, showing significant difference at only the 0.10 significance level. Taking into review the existing literature, individuals with anxiety tend to have harming and fearfully intense dreams that may lead to an increase in negatively toned dreams and even nightmares. There is also an indication that feelings, emotions, thoughts, and the content in the dream can get instigated because of anxiety or anxiety disorders (Rimsh & Pietrowsky, 2020). In depressive patients, it has been seen that themes associated with higher intensity are relatively higher, such intense themes have aspects of masochism, helplessness, and hopelessness (Beck, 1961, Hauri 1976). The ANOVA done on Dream Tone of Group A and Group B revealed that Group A (M= -0.43, SD= 0.811) and Group B (M= -0.035, SD= 0.617) the F (1,28) is 6.51 and the p-value is 0.01202. Higher trait anxiety has been linked with a higher frequency of negative tone dreams, even if they are not nightmares. The tones are often unfriendly, unpleasant, and even aggressive. The content of these negatively tones dreams contain perceived realistic threats by the dreamer, often they are linked with disappointments, misfortunes, and high negative affect (Rimsh & Pietrowsky, 2020). Individuals with State anxiety also have highly negative tones in their dreams. Themes often include hostility and violence towards the individual (King & DeCicco, 2007). Studies have also revealed that in Affective Disorders, the tone of the dream is determined by the affect of the individual prevailing before the sleep. Individuals with Bipolar Mood Disorders experience a lift in their dream affect during their manic and neutral affective phases while during depressive periods, they experience negative tones in their dreams. Depressive individuals (unipolar) experience rather regular negative tones in their dreams because of the prevailing negative affect (Beauchemin & Hays, 1996). Dream Recall of Group A and Group B. The ANOVA results revealed that Group A (M= 4.38, SD= 2.55) and Group B (M= 3.85, SD= 2.52) the F (1,28) is 3.29 and the p-value is 0.0712. The difference is not significant at p<0.01 and p<0.05 levels. Hence, there is no significant statistical difference in the frequency of dream recall in the two groups. However, this result is rather conflicting with previous literature on Dream recall. Individuals with anxiety have been studied to have more frequent dream recall of either neutral dream, bad dream, or nightmares when compared to non-clinical population (Zadra and Donderi, 2000). Conversely, studies have shown a negative correlation between depression and dream recall. The dream recall evaluation in depressed individuals was found to extremely low (Armitage et al 1995). The speculated reason for the lack of difference in the present study can be understood because individuals with both anxiety and depressive tendencies were considered. The contrast found in the previous research is because of the separate study of anxiety and depression in dream recall frequency. The ANOVA done on Nightmare Frequency of Group A and Group B. The ANOVA results revealed that Group A (M= 10.83, SD= 18.611) and Group B (M= 7.892, SD= 16.0974) the F (1,28) is 14.8802 and the p-value is <.001. This indicates that there is a significant difference in the frequency of nightmares experienced by the non-clinical population and individuals with anxiety and depressive tendencies. It can be inferred that individuals with anxiety and depressive tendencies experience a higher frequency of nightmares. Studies have repeatedly indicated that there is a significant association between high anxiety and frequency of nightmares in children, adolescents, and the adult population. (Zadra, O'Brien & Donderi, 1998). Studies with individuals with depression have also revealed a higher rate of nightmare frequency when compared to the Non-clinical population (Mume, 2009). The ANOVA done on Nightmare Distress of Group A and Group B. The ANOVA results revealed that Group A (M= 4.10, SD= 5.59) and Group B (M= 2.44, SD= 4.29) the F (1,28) is 16.463 and the p-value is <.001, indicating that there is a significant difference in the distress experienced due to nightmares by the non-clinical population and individuals with anxiety and depressive tendencies. Depressive tendencies have been studied in terms of nightmare distress; results have shown that the impact of nightmare lasts longer in individuals with depression. Furthermore, various studies have associated an increase in suicidal ideation after experiencing nightmares in individuals with moderate to severe depressive traits (Marinova et al, 2014, Hochard et al., 2015).

5. Conclusion

Anxiety and Depressive tendencies are negatively correlated to Dream Tone, and positive correlated to the Nightmare Frequency and Nightmare Distress. Therefore, individuals with anxiety and depressive tendencies are more likely to experience dreams that are negatively toned, relatively frequent nightmares, and also nightmare distress. There was no correlation evidenced between the Dream Variables of Dream Intensity and Dream Recall with Anxiety and Depressive tendencies. There is no significant gender difference in experiencing the dream variables (dream intensity, dream tone, dream recall, nightmare frequency, and nightmare distress) among individuals with anxiety and depressive tendencies. Finally, in comparison of experience of dream variables between non-clinical population and individuals with anxiety and depressive tendencies, there was significant

difference in nightmare content, frequency, and nightmare distress. Individuals with anxiety and depression have a tendency to experience nightmares which contain the more morbid themes of like death of self or a loved one, teeth falling, being abandoned, and ghosts. While the content of non-clinical population content has death of a loved one or self it is followed by nightmares involving falling. The frequency of nightmares was found to be significantly higher in individuals with anxiety and depressive tendencies, it was seen that they are more likely have experience nightmare distress. No difference was evidenced in the dream recall between the two groups. Finally, there is a significant difference in the experience of dream intensity and dream tone, individuals with anxiety and depressive tendencies experience a higher level of dream intensity and also experience more negatively toned dreams (other than nightmares).

References

Ağargün, M. Y., & Cartwright, R. (2003). Rem sleep, dream variables and suicidality in depressed patients. Psychiatry Research, 119(1-2), 33–39. https://doi.org/10.1016/s0165-1781(03)00111-2

Armitage, R., Rochlen, A., Fitch, T., Trivedi, M., & Rush, A. J. (1995). Dream recall and major depression: A preliminary report. Dreaming, 5(3), 189–198. https://doi.org/10.1037/h0094434

Beck, A. (1961). Dreams of Depressed Patients. Archives of General Psychiatry, 5(5), 462. https://doi.org/10.1001/archpsyc.1961.01710170040004

Belicki, K. (1992). Nightmare frequency versus nightmare distress: Relations to psychopathology and cognitive style. Journal of Abnormal Psychology, 101(3), 592–597. https://doi.org/10.1037/0021-843x.101.3.592

Blagrove, M., Farmer, L., & Williams, E. (2004). The relationship of nightmare frequency and nightmare distress to well-being. Journal of Sleep Research, 13(2), 129–136. https://doi.org/10.1111/j.1365-2869.2004.00394.x

Böckermann, M., Gieselmann, A., & Pietrowsky, R. (2014). What does nightmare Distress mean? Factorial structure and psychometric properties of the Nightmare Distress Questionnaire (NDQ). Dreaming, 24(4), 279–289. https://doi.org/10.1037/a0037749

Brown, R. J., & Donderi, D. C. (1986). Dream content and self-reported well-being among recurrent dreamers, past-recurrent dreamers, and nonrecurrent dreamers. Journal of Personality and Social Psychology, 50(3), 612–623. https://doi.org/10.1037/0022-3514.50.3.612

Carr, M. (2016). Dreaming in Depression (and Other Mental Illness). Psychology Today. https://www.psychologytoday.com/us/blog/dream-factory/201601/dreaming-in-depression-and-other-mental-illness.

Coolidge, F. L., & Bracken, D. D. (1984). The Loss of Teeth in Dreams: An Empirical Investigation. Psychological Reports, 54(3), 931-935. https://doi.org/10.2466/pr0.1984.54.3.931

Da Silva, H. A., Passos, M. H. P. D., De Oliveira, V. M. A., Palmeira, A. C., Pitangui, A. C. R., & De Araújo, R. C. (2016). Short version of the Depression Anxiety Stress Scale-21: is it valid for Brazilian adolescents? Einstein (São Paulo), 14(4), 486–493. https://doi.org/10.1590/s1679-45082016ao3732

Freud, S., & Strachey, J. (1965). The interpretation of dreams. New York: Avon Books

Gerald Schoenewolf, P. D. (2017, May 3). Falling dreams mean different things. https://psychcentral.com/blog/psychoanalysis-now/2017/05/falling-dreams-mean-different-things#1.

Hauri, P. (1976). Dreams in patients remitted from reactive depression. Journal of Abnormal Psychology, 85(1), 1–10. https://doi.org/10.1037/0021-843x.85.1.1

Hochard, K. D., Heym, N., & Townsend, E. (2015). The unidirectional relationship of nightmares on self-harmful thoughts and behaviors. Dreaming, 25(1), 44–58. https://doi.org/10.1037/a0038617

Jung, C.G. (1974). Dreams. Princeton, NJ: Princeton University Press.

Jung, C. G., Adler, G., & C., H. R. F. (2014). Collected Works of C.G. Jung, Volume 10 (Vol. 10). Princeton University Press.

Khodarahimi, S. (2009). Dreams In Jungian Psychology: The use of Dreams as an Instrument For Research, Diagnosis and Treatment of Social Phobia. The Malaysian Journal of medical sciences: MJMS, 16, 42–49.

King, D. B., & DeCicco, T. L. (2007). The relationships between dream content and physical health, mood, and self-construal. Dreaming, 17(3), 127–139. https://doi.org/10.1037/1053-0797.17.3.127

Kung, S., Espinel, Z., & Lapid, M. I. (2012). Treatment of Nightmares With Prazosin: A Systematic Review. Mayo Clinic Proceedings, 87(9), 890–900. https://doi.org/10.1016/j.mayocp.2012.05.015

Lancee, J., & Schrijnemaekers, N. C. M. L. (2012). The association between nightmares and daily distress. Sleep and Biological Rhythms, 11(1), 14–19. https://doi.org/10.1111/j.1479-8425.2012.00586.x

Linden, S. van der. (2011, July 26). The science behind dreaming. https://www.scientificamerican.com/article/the-science-behind-dreaming/.

Lovibond, S.H.; Lovibond, P.F. (1995). “Manual for the Depression Anxiety Stress Scales” (2nd ed.). Sydney: Psychology Foundation

Marinova, P., Koychev, I., Laleva, L., Kancheva, L., Tsvetkov, M., Bilyukov, R., Vandeva, D., Felthouse, A., & Koychev, G. (2014). Nightmares and suicide: predicting risk in depression. Psychiatria Danubina, 26(2), 159–164.

Mume, C. O. (2009). Nightmare in schizophrenic and depressed patients. The European Journal of Psychiatry, 23(3), 177–183. https://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S0213-61632009000300006.

Nadorff, M. R., Porter, B., Rhoades, H. M., Greisinger, A. J., Kunik, M. E., & Stanley, M. A. (2013). Bad dream frequency in older adults with generalized anxiety disorder: Prevalence, correlates, and effect of cognitive behavioral treatment for anxiety. Behavioral Sleep Medicine, 12(1), 28–40. https://doi.org/10.1080/15402002.2012.755125

Nguyen,T. (2002). Nightmare frequency, nightmare distress, and anxiety. Perceptual and Motor Skills, 95(5), 219. https://doi.org/10.2466/pms.95.5.219-225

Nielsen, T. A., Zadra, A. L., Simard, V., Saucier, S., Stenstrom, P., Smith, C., & Kuiken, D. (2003). The Typical Dreams of Canadian University Students. Dreaming, 13(4), 211–235. https://doi.org/10.1023/b:drem.0000003144.40929.0b

Peter, H., Penzel, T., & Jörg, H. P. (2007). Enzyklopädie der Schlafmedizin. Springer Medizin.

Picard-Deland, C., Carr, M., Paquette, T., & Nielsen, T. (2018). Sleep spindles are altered in early- but not late-onset nightmare recallers. Sleep Medicine, 52, 34–42. https://doi.org/10.1016/j.sleep.2018.07.015

Revonsuo, A. (2000). The reinterpretation of dreams: An evolutionary hypothesis of the function of dreaming. Behavioral and Brain Sciences, 23(6), 877–901. https://doi.org/10.1017/s0140525x00004015

Rimsh, A., & Pietrowsky, R. (2020). Dreams in anxiety disorders and anxiety. International Journal of Dream Research, 13(1), 1–16. https://doi.org/10.11588/ijodr.2020.1.60789

Roberts, J., Lennings, C. J., & Heard, R. (2009). Nightmares, life stress, and anxiety: An examination of tension reduction. Dreaming, 19(1), 17–29. https://doi.org/10.1037/a0014787

Rozen, N., & Soffer-Dudek, N. (2018). Dreams of teeth falling out: An empirical investigation of physiological and psychological correlates. Frontiers in Psychology, 9. https://doi.org/10.3389/fpsyg.2018.01812

Schredl, M. (2007). Dream recall: Models and empirical data. In D. Barrett & P. McNamara (Eds.), The new science of dreaming: Vol. 2. Content, recall, and personality correlates (pp. 79–114). Praeger Publishers/Greenwood Publishing Group.

Schredl, M. (2010). Explaining the gender difference in dream recall frequency. Dreaming, 20(2), 96–106. https://doi.org/10.1037/a0019392

Schredl, M., Berres, S., Klingauf, A., Schellhaas, S., & Göritz, A. S. (2014). The Mannheim Dream questionnaire (MADRE): Retest reliability, age and gender effects. International Journal of Dream Research, 7(2), 141–147. https://doi.org/10.11588/ijodr.2014.2.16675

Schredl, M., Germann, L., & Rauthmann, J. (2022). Recurrent dream themes: Frequency, emotional tone, and associated factors. Dreaming, 32(3), 235–248. https://doi.org/10.1037/drm0000221

Schredl, M., & Göritz, A. S. (2018). Nightmare themes: An online study of most recent nightmares and childhood nightmares. Journal of Clinical Sleep Medicine, 14(03), 465–471. https://doi.org/10.5664/jcsm.7002

Schredl, M., & Lahl, O. (2010). Gender, sex role orientation, and dream recall frequency. Dreaming, 20(1), 19–24. https://doi.org/10.1037/a0018578

Schredl, M., & Reinhard, I. (2011). Gender differences in nightmare frequency: A meta-analysis. Sleep Medicine Reviews, 15(2), 115–121. https://doi.org/10.1016/j.smrv.2010.06.002

Schredl, M., Berres, S., Klingauf, A., Schellhaas, S., & Göritz, A. S. (2014). Mannheim dream questionnaire. PsycTESTS Dataset. https://doi.org/10.1037/t67062-000

Schredl, M., Pallmer, R., & Montasser, A. (1996). Anxiety dreams in school–aged children. Dreaming, 6(4), 265–270. https://doi.org/10.1037/h0094461

Sikka, P., Pesonen, H., & Revonsuo, A. (2018). Peace of mind and anxiety in the waking state are related to the affective content of dreams. Scientific Reports, 8(1). https://doi.org/10.1038/s41598-018-30721-1

Weinstein, N., Campbell, R., & Vansteenkiste, M. (2017). Linking psychological need experiences to daily and recurring dreams. Motivation and Emotion, 42(1), 50–63. https://doi.org/10.1007/s11031-017-9656-0

Yu, C. K. (2007). Emotions before, during, and after dreaming sleep. Dreaming, 17(2), 73–86. https://doi.org/10.1037/1053-0797.17.2.73

Yu, C. K. (2011). The mechanisms of defense and dreaming. Dreaming, 21(1), 51–69. https://doi.org/10.1037/a0022867

Zadra, A., & Donderi, D. C. (2000). Nightmares and bad dreams: Their prevalence and relationship to well-being. Journal of Abnormal Psychology, 109(2), 273–281. https://doi.org/10.1037/0021-843x.109.2.273

Zadra, A. L., O'Brien, S. A., & Donderi, D. C. (1998). Dream content, Dream recurrence and Well-Being: A replication with a Younger Sample. Imagination, Cognition and Personality, 17(4), 293–311. https://doi.org/10.2190/llxl-d4db-9cp5-brgt