Dream content and its relationship to trait anxiety

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Summary. Although numerous dream content findings support the view that dreams reflect the dreamer's waking experiences, thoughts and concerns, research on the relation between dream content and various personality dimensions has yielded mixed results. The present study investigated the relationship between trait anxiety and everyday dream content in healthy women. Thirty adult women completed a standardized measure of trait anxiety and kept a home dream log for two to three weeks. A total of 502 dream reports were collected and scored on various content scales, including aggressive interactions, failures, misfortune, and dream report length. There was a significant positive correlation between trait anxiety and dream report length but no significant relationships were found between trait anxiety and any of the other dream content variables. These findings suggest that while higher levels of trait anxiety in women are associated with more detailed dream recall they do not significantly impact the actual content of everyday dreams. More refined measures of anxiety may be required, however, to better capture the multidimensional nature of anxiety and its potential relation to dream content.

Keywords: Dreaming, anxiety personality

1. Introduction

Consistent with the continuity hypothesis of dreaming, a growing number of studies have documented various ways in which dream content relates to the dreamer's waking concerns, thoughts and activities (e.g., De Koninck, Bradshaw, Lafreniere, Amini, & Lortie-Lussier, 2016; Domhoff, 1996; 2003; Eichenlaub, Cash, & Blagrove, 2017; Eichenlaub et al., 2018; Malinowski 2015, 2017; Malinowski, Fylan, Horton 2014; Malinowski & Horton, 2014a, 2014b; Schredl & Engelhardt, 2001; Schredl & Hofmann, 2003; Schredl, 2012; Vogelsang, Anold, Schormann, Wübbelmann, & Schredl, 2016). Research on how everyday dream content relates to specific measures of personality and well-being, however, remains limited. In particular, although anxiety has been linked to a range of sleep disorders (Levin & Nielsen, 2007; Marcks, Weisberg, Edelen, & Keller, 2010; Spoormaker & van den Bout, 2005; van Mill, Hoogendjik, Vogelzangs, Dyck, &Penninx, 2010), little is known about its relation to dream content (Skancke, Holsen, Schredl, 2014; Sikka, Pesonen, & Revonsuo, 2018). The present article aimed to help fill this gap by exploring the relationship between trait anxiety (i.e., a stable tendency to experience anxiety across situations) and the content of everyday dreams.

Evidence indicates that the daytime experiences that evoke strong emotional responses in individuals are the most likely to find their way into dreams (e.g., Eichenlaub et al, 2018; Malinowski & Horton, 2014b; Schredl, 2006), that dream content is reactive to the experience of naturalistic and experimental stressors (De Koninck & Koulack, 1975; Duke & Davidson, 2002), and that everyday dream content shows significant correlations to scores on measures of psychological well-being, both at fixed points in time and over several years (e.g., Pesant & Zadra, 2006). In addition, although sometimes contradictory in their conclusions, studies of dream content in relation to different psychopathologies (e.g., schizophrenia, depression) generally indicate that dream content is reflective of the psychopathological symptoms experienced by the dreamer during wakefulness (Kramer, 2000; Schredl, 2011; Skancke et al., 2014).

Hence, dream content appears to be sensitive to the emotional well-being of the dreamer (Sikka et al., 2018) while preferentially incorporating emotionally salient experiences (Malinowski & Horton, 2014c; Schredl, 2006). By contrast, more cognitively-focused activities (e.g., reading) and minor everyday concerns are underrepresented in dreams (Hartmann, 2000; Schredl, 2000; Schredl & Erlacher, 2008; Schredl & Hoffmann, 2003).

One dimension of well-being that has received surprisingly little attention in the field of dream research is anxiety, often defined as an unpleasant emotional state involving the feeling of tension, apprehension and worry that is accompanied by hypervigilance and hyperarousal (Spielberger, 1972; Sylvers, Lilienfeld, & LaPrairie, 2011). As proposed by Spielberger (1972), anxiety can be divided into state- and trait- anxiety – a conceptual distinction that has gained empirical support (Endler & Kocovski, 2001; Spielberger, 1993; Spielberger, Vagg, Barker, Donham, & Westberry, 1980). State anxiety refers to the transitory feeling of worry and apprehension that occurs when an individual is facing an ambiguous and uncertain threat, while trait anxiety refers to stable individual differences in the tendency to experience anxiety across situations in a persistent and pervasive manner (Spielberger, 1972; Sylvers et al., 2011). As such, trait anxiety is reflective of the frequency with which one experiences anxiety states and one may expect individuals scoring higher on trait anxiety to react with high anxiety to a larger range of stressful situations than individuals scoring lower on trait anxiety.

Empirical research suggests a close link between elevated levels of anxiety and sleep disorders, including insom-

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nia (van Mill et al., 2010) and dysphoric dreams (Levin & Nielsen, 2007; Nielsen et al., 2000; Spoormaker & van den Bout, 2005), with up to 74% of primary care patients suffering from anxiety disorders also reporting sleep disturbances (Marcks et al., 2010). Taken as a whole, however, the literature on the relation between anxiety and nightmares has yielded inconsistent results, partly due to methodological issues (Robert & Zadra, 2008; Wood & Bootzin, 1990; Zadra & Donderi, 2000). For example, anxiety may be more strongly related to levels of nightmare-related distress than to nightmare frequency per se (Belicki, 1992; Levin & Fireman, 2002; Levin & Nielsen, 2007). Other than its potential relation to highly negatively-toned dreams such as nightmares, little is known about how anxiety relates to everyday dream content (Skancke et al., 2014).

Besides a recent study suggesting that higher scores on the General Anxiety Disorder 7-item scale (GAD-7) are associated with higher negative affect in dreams (Sikka et al., 2018), the only empirical study to have examined the relationship between anxiety and dream content is that of Gentil and Lader (1978) who investigated how the dream content of female outpatients diagnosed with chronic anxiety disorders (n = 20) differed from the dream content of healthy women (n = 25). In this study, the women's levels of anxiety were measured with the State and Trait Anxiety Inventory (STAI; Spielberger, Corsuch, & Lushene, 1970) and the control group was subdivided into High Anxious Normals (HAN, n= 13) and Low Anxious Normals (LAN, n=12) based on their scores on the STAI. The authors coded the first three dreams reported by participants in a five-day dream diary using the content categories from the Hall and Van de Castle (H/VdeC; 1966) coding system (e.g., fortunes, misfortunes, success, failure, aggressive interactions, characters). Among the few significant differences found between the dream content of patients versus the control groups, the patient group was found to report more negative affect and a higher frequency of failures, of overall social interactions, and of aggressive interactions than both the HAN and LAN groups. The dreams of anxious patients also included fewer successes and friendly interactions than did the dreams of both control groups.

Only two differences, however, were found between dream content and the varying levels of trait anxiety across the three groups. First, the length of dream reports (i.e., the mean number of words per dream report) was longer in the HAN group than in both the LAN and the patient group, suggesting that trait anxiety is associated with longer dream reports within a healthy population but with shorter dream reports in the clinical population. Second, across the three groups, scores on the STAI-T were positively associated with a greater proportion of aggressive interactions directed toward the dreamer (0%, 46% and 60% in the LAN, HAN and patient groups, respectively). Taken together, these results suggest that whereas dream content may be reactive to clinical levels of trait anxiety, it appears to be only minimally impacted by normal or sub-clinical variations in trait anxiety within healthy female participants.

The study of Gentil and Lader (1978) has four important limitations. First, the number of dream reports collected per participant was low (between 2 and 7) whereas Schredl (2002) has shown that it is preferable to have approximately 20 dream reports per participant in order to obtain reliable measures of dream content. Second, participants completed a dream diary over a period of only five days, resulting

in a very time-restricted sampling of dream material. Third, while there were inter-individual differences in the number of dreams reported by participants, the authors disregarded these differences and opted to only focus on the first three dreams provided by each participant. In doing so, the authors failed to take into the account the possibility that trait anxiety may be associated to differences in dream recall frequency above and beyond any effects on content. Fourth, the emotions in dream reports were scored by judges as opposed to the participants themselves, which may cast doubt as to the accuracy and validity of the identified emotions (e.g., Roussy, Raymond, & De Koninck, 2000; Schredl & Doll, 1998; Sikka, Valli, Virta, & Revonsuo, 2014).

Although exploratory in nature, the aim of the present study was to investigate the relationship between trait anxiety and dream content within a non-patient population while addressing the limitations of Gentil and Lader's (1978) investigation. Based on the literature on experiential influences on dream content, we hypothesized that when compared to the dreams of people with low levels of trait anxiety, dreams of individuals with higher trait anxiety scores would reflect their tendencies to experience higher levels of negative affect, apprehend the possibility of threat, and experience helplessness (Sylvers et al., 2011; Sikka et al., 2018; Sylvester et al., 2012). Specifically, we predicted that higher scores on trait anxiety would be associated with the following in participants' dream reports:

1) Greater occurrence of aggressive interactions, including aggression directed toward the dreamer;
2) Greater occurrences of failures and misfortunes;
3) Greater occurrence of negative affect.

In addition, whether or not levels of trait anxiety were related to dream recall (as measured by the number of dreams recalled per week as well as by mean number of words per dream report) and to bad dream and nightmare frequency was also investigated.

2.   Method

2.1. Procedure

Participants were recruited through newspaper announcements as non-paid volunteers as part of a larger program of research investigating the relationship between dream content, personality and well-being. They were then required to provide, upon awakening, a complete written description of each remembered dream in a daily log (pen and paper format) for a minimum of two consecutive weeks. In addition to each recalled dream's narrative, participants had to report the date, the main emotions present (if any), and the emotions' intensity on a 5-point Likert scale. The protocol was accepted by the university's Ethics Committee and a signed consent was obtained from each participant.

2.2. Measures

2.2.1   Trait Anxiety

All participants completed the STAI-T questionnaire (Spielberger et al., 1970). This scale includes 20 statements rated on a 4-point scale. The trait scale is a sensitive measure of anxiety that has high test–retest reliability and concurrent validity with other anxiety questionnaires, both ranging from 0.7– 0.9 (Marteau & Bekker, 1992; Spielberger, 1983).

2.2.2 Dream Emotions

Whenever present, self-reported emotions in dreams were classified by participants as being positive, negative, neutral or mixed, and an overall rating of the dream's overall emotional tone provided for each report. Dreams described as containing predominantly negative emotions whose intensity was rated by participants as being "very strong" or "intense" were coded as "bad dreams/nightmares."

2.2.3 Dream Content Variables

The following variables were used from the H/VdeC coding system:

1. Friendly and aggressive interactions. This scale measures the frequency of emotionally-toned social interactions. Friendly social interactions involve a deliberate, purposeful act or covert expression of support, help, kindness, or giving while aggressive interactions are defined in terms of a deliberate, purposeful act or covert expression of aggression.
2. Success and failure. These variables measure the successful handling of some difficulty encountered by a character or incapacity of the character to achieve a desired goal because of personal limitations and inadequacies.
3. Good fortune and misfortune. Good fortune is scored when something beneficial happens to a character that is completely adventitious while misfortunes refer to any mishap, adversity, harm, danger, or threat that happens to a character as a result of circumstances over which they have no control.

All dream content variables were scored independently by two extensively trained raters both blind to participants' STAI-T scores. In addition, one of the raters was also blind to the study's aim. Since kappa coefficients are unreliable when applied to variables with infrequent occurrences, inter-judge reliability was assessed with Gwet's AC1 statistic (Gwet, 2008). Results showed a good to excellent agreement across all dream content categories with AC1 values ranging from .78 to .98.

2.3. Participants

Thirty participants were selected from a larger database of subjects recruited through newspaper announcements as non-paid volunteers as part of a program of research investigating the relationship between dream content, personality and psychological well-being. Specifically, ten participants were randomly selected among participants whose scores on the STAI-T placed them in the lowest, middle, or highest tercile on this instrument. For the purpose of this study, only female participants (all Caucasian; mean age = 30.7 ± 12.2 yrs.) were selected as there were too few male participants to allow for sex-based comparisons.

2.4. Data Analyses

Statistical analyses were computed with the Statistical Package for the Social Sciences Software release 2013 (IBM SPSS Statistics for Windows, Version 22.0. Armonk, NY: IBM Corp.). Descriptive statistics and the exploration of distributions were performed. Outliers were identified as data points situated at ± 3SD from the mean. None of the dream content variables had more than one outlier with outliers being present in the following variables: aggressive interactions, aggression directed towards the dreamer, failures, misfortunes. All analyses were performed with outliers without transformations as well as with the outliers being recoded to fit the 95% of the distribution; the results of the analyses did not differ between the two methods of analyses. To normalize the distribution of failures, the log transformation was used and analyses were performed with and without the transformation; results between the two analyses were virtually the same. Pearson as well as Spearman correlational analyses were performed to assess the relationship between scores on the STAI-T and measures of dream content. Spearman correlations (used to assess monotonic relationships based on the ranked values for each variable instead of raw scores) were computed as complementary analyses to the Pearson product moment correlations (designed to measure linear relationship) to take into account non-normally distributed dream content variables (e.g., failures, misfortunes) that could distort Pearson correlational results.

In order to take into account variations in dream report length, the frequency of each dream content variable was calculated per 100 words (i.e., dividing the total number of occurrences of each content variable by the total number of words in the report and multiplying the result by 100).

All dreams reported by participants in their home logs were included in the analyses in order to take into account inter-individual differences in dream recall frequency as well as to assess the relationship between anxiety and dream recall. Because depression can co-vary with anxiety and can also impact dream content, correlational analyses were performed to explore the relation between the dream content variables and participants' scores on the Beck Depression Inventory (BDI; Beck, Steer, & Carbin, 1988). All resulting correlations were non-significant and thus this variable was not considered in subsequent analyses.

3.   Results

Participants completed their dream logs over a period varying between 10 and 28 days (mean 18.3 ± 4.3 days) and a total of 502 dream reports were collected. The number of dream reports per participant ranged from 4 to 40 with a mean of 16.7 ± 9.2 dreams. Table 1 presents the distributions of the dream content variables.

Our participants' scores on the STAI-T ranged between 21 and 71, with a mean of 43.5 ± 15.7. These values are similar to those reported by Gentil & Lader (1978) for their comparably aged group of healthy controls (mean age = 31.5 ± 9.4 yrs): mean STAI-T scores of 33.0 ± 7.0 and 46.0 ± 8.0 for their LAN and HAN control groups, respectively.

The correlations between participants' scores on the STAI-T and the dream content variables as well as with dream recall and the mean number of bad dreams and nightmares reported per week are presented in the correlation matrix in Table 2. As can be seen in this table, none of the correlations between STAI-T and dream variables were statistically significant, apart from the correlation between STAI-T and dream report length as measured by number of words per dream report. Correlations between STAI-T scores and positive dream content elements (e.g., friendly interactions, success, good fortunes) were also non-significant.

Table 1. Distributions of Dream Content Variables

Variable	Range	Mean	SD
Dream report length (# of words per dream)	23.82 - 311.75	140.91	77.52
% of Dreams with negative affect	3.12 - 83.33	37.44	20.94
# Disturbing dreams/week	.00 - 4.90	1.51	1.35
# of Misfortunes/100 words	.25 – 1.77	0.73	0.31
# of Failures/100 words	.00 – .18	0.03	0.05
# of Aggressive Interactions/100 words	.27 – 1.23	0.63	0.27
# of Aggression towards the dreamer/100 words	.08 – 100.00	3.59	18.21

4. Discussion

The aim of the present study was to investigate the relationship between trait anxiety and dream content within a non-clinical population of adult women. Consistent with the results of Gentil & Lader (1978), our findings reveal a positive relationship between trait anxiety and dream report length in healthy females, as measured by the number of words per dream report. While the correlation coefficient was only significant with the Spearman correlation, it is possible that the Pearson correlation would also become significant with a larger sample size. According to Cohen's (1988) criteria, the Pearson product moment correlation obtained between STAI-T scores and dream report length (r=.299) was of moderate strength. The difference in significance level between the Spearman and Pearson correlations may also reflect the presence of a monotonic rather than linear relationship between STAI-T scores and dream report length. It is also possible that these findings reflect the effects that moderate stress may have on increased performance (Diamond, 2005) whereby healthy women who are more prone to experience anxiety may be more conscientious of performing well on experimental tasks and thus provide more detailed dream reports. On the other hand, since extreme anxiety is associated with decreased performance (Diamond, 2005), the relationship between anxiety and dream report length may lessen in clinical populations, as found by Gentil & Lader (1978).

Alternatively, these findings may suggest that higher scores on trait anxiety are associated with the recall of more vivid or detailed dream experiences. Increased experiences of vivid dreams in individuals with higher trait anxiety may be related to greater emotional reactivity to situational stressors as salient emotional experiences are preferentially incorporated into the dreams (Duke & Davidson, 2002; Malinowski & Horton, 2014c; Schredl, 2006; Sylvers et al., 2011). Moreover, the increased emotional intensity associated with negatively-toned dreams may in itself contribute to their memorability (Kihlstrom, Eich, Sandbrand, & Tobias, 2000). Consistent with this view, our findings show a positive correlation (r= 0.574) between the occurrence of disturbing dreams and dream report length.

Contrary to our predictions, we did not find significant correlations between levels of trait anxiety and frequency of occurrence of specific dream content variables, including aggressive interactions, failures, misfortunes, positive and negative emotions, as well as frequency of disturbing dreams. These findings diverge from those of Gentil & Lader (1978) who found a significant association between trait anxiety and an increased occurrence of aggression directed toward the dreamer as well as an association between trait anxiety and longer dream reports. Given the methodological improvements of the present study relative to Gentil & Lader's (e.g., greater number of dream reports per participant, longer duration of dream logs, inclusion of all dream reports), the present findings are likely more representative of the general relationship between trait anxiety and dream content, especially in non-clinical female populations. Taken as a whole, however, our negative findings are consistent with those of Gentil & Lader in that they too found no signifi-

Table 2. Spearman rank order correlation matrix for STAI-T and all dream content variables

Variable	1	2	3	4	5	6	7	8
1.STAI-T	--							
2. Dream report length (mean # words/dream report)	**.386***	--						
3. Dream recall frequency (# dreams/week)	.056	.316	--					
4. Negative affect	.183	.498	-.102	--				
5. Disturbing dreams (bad dreams and nightmares)	.073	-.138	**.574**	**.492**	--			
6. Misfortunes	-.113	**-.520**	-.063	**.271**	.221	--		
7. Failures	.286	.057	.203	**.289**	.312	.068	--	
8. Aggressive interactions (overall)	.047	-.186	**-.513**	.236	-.345	-.065	.136	--
9. Aggression directed toward the dreamer	.102	**-.425***	**-.384**	.297	-.212	.017	.263	**.720**

Note: Bold values indicate statistically significant correlations (p<.05). * Indicates that the equivalent Pearson correlation was non-significant. Results are presented with outliers recoded to fit 95% of the distribution. Variables in italics indicate presence of an outlier in the distribution of the variable; none of the variables had more than one outlier.

cant associations between STAI-T scores and 14 of their 16 measures of dream content.

There are at least two ways of interpreting our findings showing no relationship between trait anxiety and measures of dream content. First, trait anxiety may be unrelated to dream content in relatively healthy women. Second, since trait anxiety can represent a multidimensional construct, its multifaceted nature may not be entirely captured by the STAI-T (Julian, 2011; Vagg, Spielberger, & O'Hearn, 1980). In this case, it is possible that alternative measures of anxiety (e.g., taking into account the types of situations in which one is most likely to experience heightened anxiety, differentiating between cognitive versus somatic symptoms of anxiety) may in fact be related to everyday dream content.

The first interpretation is in line with affirmations that psychometrically measured personality traits are largely unrelated to dream content (Blagrove & Pace-Schott, 2010). In fact, reviews of the relationship between personality traits and dream content have yielded mixed and largely unconvincing results (Blagrove, 2007; Blagrove & Pace-Schott, 2010). These reviews also highlight the fact that studies reporting significant findings on personality and dream content tend to suffer from important methodological limitations (e.g., small sample sizes, multiple comparisons, collection of dream reports via questionnaires, use of in-house scoring instruments, Schredl & Engelhardt, 2001). Hence, it is possible that personality traits, including trait anxiety, do not impact dream content in a significant way in healthy populations.

Given that waking levels of anxiety are largely contingent on exposure to situations that individuals perceive as being threatening (Endler & Kocovski, 2001; Eysenck, 2014), dream content may be more likely to be affected by state anxiety in response to situational stressors. In fact, research indicates that dream content is reactive to naturalistic and experimental stressors (e.g., De Koninck & Koulack, 1975; Schredl, 2003) and specific events associated with elevated state anxiety, such as surgery, watching a stressful movie, and student examinations can also impact dream content (Breger, Hunter, & Lane, 1971; Cartwright, Agargun, Kirkby, & Friedman, 2006; Cartwright, Lloyd, Knight, & Trenholme, 1984; Cartwright, Newell, & Mercer, 2001; Delorme, Lortie-Lussier, & De Koninck, 2002; Najam, Mansoor, Kanwal, & Naz, 2006; Valli, Revonsuo, Pälkäs, & Punamäki, 2006). As such, measures of state anxiety may be more appropriate and informative in capturing dynamic relationships between anxiety and dream content. Recent findings indicating a positive association between GAD-7 scores (indicative of levels of state anxiety within the past two weeks) and negative affect in dreams (Sikka et al., 2018) are consistent with this possibility. The relationship between state or day-to-day fluctuations in anxiety scores and dream content could not be tested as we did not assess state indices of anxiety.

It is also possible that instruments such as the STAI-T do not capture the heterogeneous nature of trait anxiety. Some research suggests that individuals with low trait anxiety are comprised of two distinct subgroups: those that are truly low trait anxiety individuals and "repressors" – individuals who show high physiological response to stressful situations despite scoring low on trait anxiety (Eysenck, 2014, p. 6). Recent studies suggest that individuals who tend to repress their thoughts dream more of their waking life emotions than non-repressors (Malinowski, 2015, 2017). In addition, whereas STAI-T measures trait anxiety as a unidimen-

sional construct (Vagg et al., 1980), some authors argue that trait anxiety is a multidimensional construct (e.g., Endler & Kocovski, 2001).

The multidimensional model of trait anxiety specifies the types of situations in which individuals differ in anxiety proneness (e.g., interpersonal, physical danger, ambiguous, daily routine situations; Endler & Kocovski, 2001; Endler, Parker, Bagby, & Cox, 1991). For example, a person who has a trait predisposition to respond with anxiety to social situations might not respond with anxiety to ambiguous situations. Individuals who differ on the types of situations to which they respond with anxiety can also differ on the types of cognitive biases that they tend to have (Calvo, Avero, Castillo, & Miguel-Tobal, 2003). Individuals with similar scores on STAI-T may thus constitute a heterogeneous group and show differential relations between anxiety profiles and everyday dream content. For instance, the dreams of individuals prone to experience anxiety in interpersonal situations may be more likely to show distinguishing features in the interpersonal sphere (e.g., more negative social interactions) while the dreams of individuals prone to experience anxiety in ambiguous situations may be more likely to contain negative events that are outside of an individual's control (e.g., more misfortunes).

This view is concordant with the proposed idea that a trait could be predictive of dream content, but only if this trait is important to the dreamer's overall personality (Blagrove & Pace-Schott, 2010). What may be most important to individuals' personality is not their overall predisposition to experience anxiety (i.e., general trait anxiety), but rather the specific types of situations that evoke anxiety. In a related vein, Domhoff (2017) has argued that it is the intensity of an individual's primary concerns and interests that shape central aspects of his or her dream content. This viewpoint adds to the idea that it is not generalized anxiety per se that should be expected to be reflected or embodied in the dreams of anxious individuals, but rather their most important (and at times long-standing) preoccupations that, in some cases, may tie into their anxiety. Supporting this view are findings suggesting that attachment anxiety and attachment style are associated with positive and negative emotions experienced in dreams, the relationship being mediated by anxiety and depression proneness (Sándor, Horváth, Bódizs, & Thege, 2018).

Finally, one model (Levin & Nielsen, 2009) of dysphoric dream production suggests that variations in the frequency and intensity of negative dream content are partly determined by affect load, or day-to-day variations in emotional stress, and that the impact of stress on dream content may vary as a function of personality traits. For example, people who are prone to experience heightened negative emotions (e.g., anxiety) in response to stressors in everyday life are more likely to subsequently experience negatively-toned dream content. Thus, the dreams of people scoring high on measures of trait anxiety may be reactive to this disposition, but only when combined with unique stressors that heighten their anxiety response. The ways in which different types of stressors (e.g., acute, chronic, emotionally salient, interpersonal, daily hassles) interact with dispositional features to impact dream content remains to be determined.

The present study contains several methodological shortcomings, including a relatively small sample size comprised uniquely of women, the absence of state anxiety measures,

and a sample likely biased by an inherent interest in dream research.

In line with several recent, innovative studies in the field, additional research aimed at delineating the differential and dynamically interrelated impacts of people's day-to-day levels of well-being, nature and intensity of their ongoing preoccupations and concerns, and presence of situational stressors on the content of everyday dreams is warranted.

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