

Digital Commons @ CIIS


International Journal of Transpersonal Studies Advance Publication Archive

2022

The Luminous Night of the Soul: The Relationship between Lucid Dreaming and Spirituality

Tadas Stumbrys

Follow this and additional works at: <https://digitalcommons.ciis.edu/advance-archive>

 Part of the [Philosophy Commons](#), [Psychological Phenomena and Processes Commons](#), [Religion Commons](#), [Somatic Psychology Commons](#), and the [Transpersonal Psychology Commons](#)

The Luminous Night of the Soul: The Relationship between Lucid Dreaming and Spirituality

Tadas Stumbrys

Alef Trust Vilnius University
Wirral, England, UK Vilnius, Lithuania

Lucid dreams, in which the dreamers are aware that they are dreaming, can be a source of spiritual and mystical experiences. This empirical study aimed to explore the relationship between lucid dreaming and spirituality, taking into account the role of mystical lucid dream experience, in an online sample of 471 respondents, 95% of whom had lucid dream experience and 65% were frequent lucid dreamers. The findings support the relationship between lucid dreaming and spirituality: spiritual transcendence was positively associated with both lucid dream frequency and mystical lucid dream experiences. Thus having recurrent lucid dreams and mystical experiences in them may foster spiritual growth, rendering lucid dreaming possibly a viable spiritual practice, especially within the secular context. However, the correlative nature of the present research does not imply causality and further longitudinal research confirming this is needed.

Keywords: *lucid dreams; spirituality; spiritual transcendence; mystical experience*

From earliest times, dreams fascinated humanity as a source of inspiration and mystery. They were the probable source of religious cognitions (McNamara & Bulkeley, 2015) by presenting direct evidence of a spirit realm, disembodied spirits, afterlife (by meeting deceased relatives) and by providing direct contact with the supernatural/Transcendent. Dreaming itself can be considered a spiritual practice (Bulkeley, 1996), both within more traditional religious domains and more secular spirituality which is increasingly prominent in the modern world.

While most dreams are retrospective experiences that can be pondered only after awakening from a different—ordinary waking—state of consciousness, in some dreams the dreamers can become aware that they are dreaming while they are dreaming, so they can consciously experience and volitionally act upon their dream experience while it is unfolding. Such dreams are called lucid dreams (LaBerge, 1985). Sleep laboratory research shows that lucid dreams predominantly occur during the rapid eye movement (REM) stage of sleep and can be verified on the sleep recording by volitional eye movements (LaBerge et al., 1986), though they

could also arise during non-REM stage 1 and non-REM stage 2 of sleep (Mota-Rolim et al., 2015; Stumbrys & Erlacher, 2012). Lucidity in dreams is associated with the reactivation of the prefrontal brain areas (Stumbrys et al., 2013b), which are relatively dormant during non-lucid REM dreaming, and this reactivation empowers insight and metacognition in the dream state. Although frequent lucid dreaming is a rare ability, a fairly recent meta-analysis indicates that about 55% of individuals have experienced it at least once in their lifetime and about 23% have lucid dreams on a regular basis—once a month or more frequently (Saunders et al., 2016).

Generally, lucid dreams are positive and empowering experiences leading to increased mood after awakening (Stocks et al., 2020; Stumbrys & Erlacher, 2016) and contributing to overall well-being and personal growth (Doll et al., 2009; Konkoly & Burke, 2019). Whereas many lucid dreamers use their lucid dreams primarily for fun and wish fulfilment, lucid dreams are also used for overcoming fears or nightmares (de Macêdo et al., 2019), solving waking-life problems, creative inspiration, skill training, physical and mental healing, spiritual experiences and meditation

(Schädlich & Erlacher, 2012; Stumbrys & Erlacher, 2016).

A study by Stumbrys and Erlacher (2016) with a sample of 357 lucid dreamers found that 153 of them (42.9%) used their lucid dreaming for seeking spiritual experiences, though not very frequently (in 8.1% of their lucid dreams). Whereas the lucid dream state can be considered a transpersonal experience in itself (Stumbrys, 2018a), it can also serve as a gateway to facilitate further transpersonal and mystical experiences (Mota-Rolim et al., 2020).

In a study by Bogzaran (1990), 77 lucid dreamers were invited to seek and experience the Divine in the lucid dream state and 35 succeeded. Interestingly, the experiences of the Divine in the lucid dream state fitted the preconceptions of lucid dreamers: Those who thought of the Divine as personal mostly experienced it in a personalized form (e.g., Christ, Buddha), while those who considered it impersonal, perceived it as an impersonal concept (e.g., all-encompassing energy, formless). The strategies of lucid dreamers varied; some were actively searching for the Divine in lucid dreams, while others were passively waiting for the Divine to appear. Their intention seemed to be the key in facilitating the occurrence of such experience.

In another more recent study, Esser (2014) invited 13 lucid dreamers to incubate kundalini (purported dormant “subtle energy” that is locked at the base of the spine and can be “awakened”) and non-dual awareness (experiential unity without the subject-object distinction). Ten participants were successful in experiencing kundalini in the lucid dream state. For some, the kundalini experience even extended into the waking state. Most felt kundalini to be the Divine, and five participants experienced non-duality, also feeling that in some way their experiences were connected to ultimate reality. Three-month and one-year follow-up interviews with the participants revealed that these experiences influenced a deeper sense of psycho-spiritual wellbeing in them. Kelzer (2014) similarly reported that mystical experiences in lucid dreams can have profound transformative effects, which may last for a number of years.

Lucid dreaming is used as a spiritual practice in the Tibetan tradition of dream yoga (Norbu, 1992;

Wangyal, 1998), an advanced tantric practice of Dzogchen (“Great Perfection”) based on the tenet that reality, including the individual, is already complete and perfect and one needs just to recognise it for what it truly is, namely, *rigpa* – non-dual awareness. The main goal of dream yoga practice thus is to achieve and maintain *rigpa* in the dream state and ultimately to remain in this non-dual awareness across the entire wakefulness-sleep cycle (Wangyal, 1998). The adepts generally proceed through several stages of dream yoga practice (Tarab Tulku, 2000): First, they learn to become lucid in dream; then they aim to gain proficiency and control over the lucid dream state; the further aim is to develop the flexibility of mind by breaking up illusions of duality within the dream state; and finally they venture beyond dream appearances “to merge with the unity of the subtle body/mind” (p. 282).

The evidence thus suggests that lucid dreaming may facilitate spiritual growth and a deeper sense of spiritual awareness in its practitioners, with one of the possible pathways for this via having mystical experiences in lucid dreams. The systematic research on the relationship between lucid dreaming and spirituality, however, is lacking.

Study

The present study aimed to quantitatively assess this relationship in a large pool of participants who are predominantly lucid dreamers using a cross-sectional correlational design. To encompass various expressions of spirituality (Davis et al., 2015), both within religious and secular contexts, a notion of spiritual transcendence emphasising “a personal search for connection with a larger sacredness” (Piedmont, 1999, p. 989) was employed to operationalize spirituality, which also showed cross-cultural generalizability in previous research (Piedmont, 2007; Piedmont & Leach, 2002). In addition, the possible role of mystical lucid dream experience was assessed. The mystical experience was considered in accordance with a phenomenological common core model of Stace (1960) that there is a universal core to mystical experience relatively independent of its interpretation, adapting a classic measure developed by Hood (1975).

Participants

There were no specific requirements for participation in the study, except to be 18 years or more in order to provide legal informed consent. The study was conducted in English.

Instruments

Self-report measures were used to gather data on dream and lucid dream frequency, participant spirituality, and mystical experiences associated with the lucid dream state.

Frequency of dreams and lucid dreams.

The respondents were asked to estimate their overall dream recall frequency on a seven-point scale (0 – never; 1 – less than once a month; 2 – about once a month; 3 – twice or three times a month; 4 – about once a week; 5 – several times a week; 6 – almost every morning) which was shown to have a good re-test reliability in previous research ($r=.85$; $p<.001$; $N=198$; Schredl, 2004). In order to obtain units of mornings per week, the scale was recoded using the class means: 0 → 0, 1 → 0.125, 2 → 0.25, 3 → 0.625, 4 → 1.0, 5 → 3.5, 6 → 6.5 (Schredl, 2004). Similarly, the participants were asked to estimate their lucid dream frequency on an eight-point scale (0 – never; 1 – less than once a year; 2 – about once a year; 3 – about 2 to 4 times a year; 4 – about once a month; 5 – about 2 to 3 times a month; 6 – about once a week; 7 – several times a week), which also showed a good re-test reliability ($r = .89$; $p < .001$; $N = 93$; Stumbrys et al., 2013a). To ensure a clear understanding of the phenomenon, a brief definition was provided: “In a lucid dream one is aware that one is dreaming during the dream. Thus, it is possible to wake up deliberately, to influence the action of the dream actively or to observe the course of the dream passively”. To obtain units in frequency per month, the scale was recoded using the class means: 0 → 0, 1 → 0.042, 2 → 0.083, 3 → 0.25, 4 → 1.0, 5 → 2.5, 6 → 4.0, 7 → 18.0 (Stumbrys et al., 2013a).

Spirituality. The Spiritual Transcendence Scale (STS, Piedmont, 1999) was used to assess spirituality. STS consists of 24 items rated on a five-point scale (1 – strongly agree to 5 – strongly disagree) summing at three subscales: Universality (a belief in the unitive nature of life), Prayer Fulfilment (feelings of joy and contentment resulting from prayer/meditation) and Connectedness (a sense of

responsibility and connection to others). The internal reliability (Cronbach's α) in the present sample for the entire scale (.94) and for the subscales (Universality: .92; Prayer Fulfilment: .89; Connectedness: .71) was acceptable.

Mystical lucid dream experience. An adapted version of Mysticism Scale (M Scale, Hood, 1975) was used to assess the mystical experience in the lucid dream state. The modification involved framing the statements in relation to the experiences within lucid dreams specifically rather than in relation to the overall experiences. For example, the statement “I have had an experience which was both timeless and spaceless” was reframed to “I have had an experience in lucid dreams which was both timeless and spaceless.” The M scale is derived from Stace's (1960) common criteria of mysticism and includes 32 items (half of them negatively worded) scored on a five-point scale (1 – definitely not true to 5 – definitely true). It has a three-factor structure, compatible with the conceptual work of Stace: Extrovertive Mysticism, Introvertive Mysticism and Interpretation (Hood et al., 1993; Streib et al., 2021). The internal reliability (Cronbach's α) in the present sample for the entire scale (.95) and for the subscales (Extrovertive Mysticism: .90, Introvertive Mysticism: .88; Interpretation: .89) was good.

Recruitment

The online questionnaire was developed using the open-source survey software tool LimeSurvey and was hosted securely on the author's personal website. The questionnaire had a generic title “Survey on lucid dreams and related experiences” without specific references to spirituality and included a broad range of questions and research instruments unrelated to spirituality (reported elsewhere: Stumbrys, 2018b, 2021). The questionnaire was anonymous, but respondents had an opportunity to provide their email addresses if they were interested in the findings or in participating in future research on lucid dreaming. The email address was also used to minimize the risk of multiple responses. The survey was distributed via various social media (e.g., Facebook, Reddit) groups and online discussion forums (e.g., DreamViews, World of Lucid Dreaming, LD4All) related to lucid dreaming, as well as sent out to

a pool of respondents who had participated in previous lucid dream-related online studies. When distributing the link to the survey, as with its title, only a very generic invitation was used (i.e., to participate in a study on lucid dreams, related experiences, and the effects they may have) to avoid possible biases. All questions and instruments were presented in English. The study was conducted in accordance with the Declaration of Helsinki.

Treatment of Data

IBM SPSS (Version 22) was used for statistical analysis. Spearman's *rho* correlations were used to assess the associations between the variables. Student's independent *t*-test was used for comparison of spirituality measures between frequent lucid dreamers and infrequent and non-lucid dreamers. Logistic regression analyses were conducted for spirituality measures with a pool of predictor variables (including demographics—age, sex) to control for intercorrelations and assess possible influencing variables. An $\alpha = .05$ significance level was employed throughout statistical analyses.

Results

The responses were collected between July 2016 and September 2020. The sample consisted of 471 adult participants (249 men, 217 women, and

Demographic Category	Total	Sex		
		F	M	X
Age group				
18–35	312	134	175	3
36–59	137	74	61	2
60+	22	9	13	0
Geographical region				
Europe (26)	216	102	112	2
North America (2)	197	92	102	3
Latin America / Caribbean (5)	13	3	10	0
Africa (5)	6	4	2	0
Asia (13)	24	9	15	0
Oceania (2)	15	7	8	0

Table 1. Sample breakdown by sex, age group, and geographical region. (Note: Numbers in brackets alongside geographical region indicate the number of countries represented by participants from that region. "X" indicates other/non-binary.)

Frequency categories	n	%
Dream recall		
Never	1	0.2
Less than once a month	10	2.1
About once a month	5	1.1
About 2–3 times a month	22	4.7
About once a week	47	10.0
Several times a week	146	31.0
Almost every morning	240	51.0
Lucid dreams		
Never	24	5.1
Less than once a year	26	5.5
About once a year	21	4.5
About 2–4 times a year	93	19.7
About once a month	91	19.3
About 2–3 times a month	77	16.3
About once a week	55	11.7
Several times a week	84	17.8

Table 2. Dream recall and lucid dream frequency of the study sample (N = 471).

other/non-binary individuals) who completed the online questionnaire. The age of participants ranged from 18 to 84 years, with a mean age of 33.1 ± 12.8 . The participants were from 54 different countries, though the highest proportion was from the United States (174 respondents, 36.9% of the total sample). The sample breakdown in relation to sex, age group and geographical region is presented in Table 1.

The frequencies of lucid dreams and of dream recall of the study participants are presented in Table 2. Most respondents (447, 94.9%) had lucid dream experience, and the majority of the sample (307, 65.2%) were frequent lucid dreamers (Snyder & Gackenbach, 1988) having lucid dreams once a month or more often. The participants were good dream recallers, with just over the half of the sample remembering their dreams almost every morning (Table 2).

The descriptive data and correlations among the study variables are provided in Table 3. Age, lucid dream frequency and overall dream recall frequency were positively associated with spiritual transcendence and mystical lucid dream experience (Table 3).

Lucid dreaming and spirituality

Frequent lucid dreamers scored higher on the Spiritual Transcendence Scale and on two of its

Variable	M(SD)	DRF	LDF	STS-U	STS-PF	STS-C	STS	M-EM	M-IM	M-I	M
Age ^a	33.1 (12.8)	.146**	.098*	.344***	.328***	.315***	.378***	.245***	.182***	.257***	.251***
DRF ^a	4.5 (2.2)		.440***	.172***	.171***	.046	.164***	.162**	.197***	.225***	.218***
LDF ^a	4.3 (6.5)			.139**	.124**	.052	.127**	.294**	.375***	.329***	.371***
STS-U ^a	32.4 (9.0)				.724***	.548***	.913***	.475***	.369***	.500***	.493***
STS-PF ^a	27.5 (8.3)					.563***	.907***	.454***	.388***	.507***	.497***
STS-C ^a	19.5 (4.6)						.728***	.314***	.218***	.367***	.335***
STS ^a	79.5 (19.2)							.495***	.391***	.545***	.527***
M-EM ^b	20.9 (9.1)								.685***	.782***	.893***
M-IM ^b	35.6 (12.4)									.687***	.886***
M-I ^b	38.9 (12.1)										.916***
M ^b	95.4 (30.3)										

Table 3. Descriptive data and intercorrelations between study variables (Spearman's rho)

Note: DRF = dream recall frequency (times per week); LDF = lucid dream frequency (times per month); STS-U = STS Universality subscale score; STS-PF = STS Prayer Fulfilment subscale score; STS-C = STS Connectedness subscale score; STS = overall STS score; M-EM = M Scale Extrovertive Mysticism subscale score; M-IM = M Scale Introvertive Mysticism subscale score; M-I = M Scale Interpretation subscale score; M = overall M Scale score; ^an = 471, ^bn = 447, *p<.05, **p<.01, ***p<.001.

subscales (Universality and Prayer Fulfilment) than infrequent and non-lucid dreamers (Table 4). Further, a regression analysis was conducted with STS scale and its subscales as dependent variables and age, sex, dream recall frequency and lucid dream frequency as predictor variables (Table 5). When controlled for demographics and overall dream recall frequency, lucid dream frequency was still a significant predictor of higher scores on the overall STS scale and its Universality subscale (Table 5).

Mystical lucid dream experience and spirituality

To assess the relationships between mystical lucid dream experience and spirituality, regression analyses were conducted with STS scale and its subscales as

dependent variables and M Scale facets as predictor variables (Table 6). The Interpretation subscale was a significant predictor of all facets of spiritual transcendence, while External Mysticism was a predictor of the overall STS score and Universality and Prayer Fulfilment subscales (Table 6).

Discussion

Overall, the empirical findings support the relationship between lucid dreaming and spirituality: More frequent lucid dreamers had higher spiritual transcendence scores than infrequent and non-lucid dreamers (Table 4), and the lucid dream frequency remained a significant predictor of spiritual transcendence even when controlled

Variable	Frequent lucid dreamers (n = 307)	Infrequent and non-lucid dreamers (n = 164)	t	df	p
STS-Universality	33.3 (8.7)	30.8 (9.4)	2.98	469	.003
STS-Prayer Fulfilment	28.2 (7.9)	26.1 (8.9)	2.62	469	.009
STS-Connectedness	19.7 (4.5)	19.3 (4.8)	0.97	469	.335
STS Overall	81.2 (18.2)	76.1 (20.8)	2.66	296.8	.008

Table 4. Comparison of spiritual transcendence scores between frequent lucid dreams and infrequent/non-lucid dreamers

Variable	STS-Universality	STS-Prayer Fulfilment	STS-Connectedness	STS Overall
Age	Beta = .31, t = 7.00***	Beta = .30, t = 6.86***	Beta = .29, t = 6.54***	Beta = .34, t = 7.96***
Gender (M<F)	Beta = .07, t = 1.59	Beta = -.04, t = -.80	Beta = .02, t = .47	Beta = .02, t = .52
Dream recall frequency	Beta = .06, t = 1.23	Beta = .08, t = 1.63	Beta = .03, t = .60	Beta = .07, t = 1.45
Lucid dream frequency	Beta = .11, t = 2.16*	Beta = .09, t = 1.91	Beta = .04, t = .84	Beta = 0.10, t = 2.07*

Table 5. Regression analyses for spiritual transcendence scores with age, gender, dream recall and lucid dream frequencies as predictors. Note: *p<.05, *p<.001.**

for the overall dream recall frequency, as well as age and sex (Table 5). Moreover, the mystical lucid dream experience was also a predictor of spiritual transcendence (Table 6).

The most straightforward explanation of the findings is that having recurrent lucid dreams – which are transpersonal experiences in themselves (Mota-Rolim et al., 2020; Stumbrys, 2018a) – can facilitate spiritual transcendence in lucid dreams, especially if encountering the mystical type of lucid dream experiences. Yet, as this was a cross-sectional correlational study without a longitudinal observation, no causation can be inferred, and an alternative explanation can also be possible: Spiritual growth leads to having more lucid dreams and more mystical-type experiences in them. For example, previous research showed that long-term meditators have more lucid dreams and more archetypal dreams (Baird et al., 2019; Faber et al., 1978). Yet, the correlation between the age and the lucid dream frequency was very weak in the present sample,

while age correlated much more strongly with spiritual transcendence and mystical lucid dream experience (Table 3). Previous research also showed either no association (e.g., Stumbrys et al., 2015) or even a decline of lucid dream frequency with age (e.g., Schredl & Goritz, 2015), giving more support to the former possibility (i.e., lucid dreaming being the causal factor); however, longitudinal research is needed to establish this.

Lucid dream frequency was positively associated with the overall spiritual transcendence score, as well with two of its subscales – Universality and Prayer Fulfilment. However, the latter association became non-significant when controlled for age, sex and overall dream recall frequency (Table 4). Piedmont (1999) defined Spiritual Transcendence as “the capacity of individuals to stand outside of their immediate sense of time and place to view life from a larger, more objective perspective. This transcendent perspective is one in which a person sees a fundamental unity underlying the diverse

Variable	STS-Universality	STS-Prayer Fulfilment	STS-Connectedness	STS Overall
M-Extrovertive Mysticism	Beta = .20, t = 2.87**	Beta = .15, t = 2.12*	Beta = .08, t = 1.09	Beta = .18, t = 2.63**
M-Introvertive Mysticism	Beta = -.03, t = -.53	Beta = -.01, t = -.10	Beta = -.09, t = -1.35	Beta = -.04, t = -.67
M-Interpretation	Beta = .37, t = 5.37***	Beta = .39, t = 5.70***	Beta = .37, t = 5.07***	Beta = .43, t = 6.51***

Table 6. Regression analyses for spiritual transcendence scores with mystical lucid dream experience facets as predictors. Note: *p<.05, **p<.01, *p<.001.**

strivings of nature" (p. 988). The facet of Universality represents the belief in the unitive nature of life, while Prayer Fulfillment refers to feelings of joy and contentment which result from personal encounters with a transcendent reality (Piedmont, 1999). In the context of lucid dreaming, Prayer Fulfillment is likely to be linked to specific spiritual experiences in lucid dreams, and therefore it may be more dependent on overall dream recall. On the other hand, Universality – the belief in the unitive nature of life – is likely to more result from the overall lucid dream experience, as the lucid dreamer gains deeper insights into the dreaming and – consequently – waking realities. Notably, no association was observed with the third component of spiritual transcendence, Connectedness, which relates to the sense of personal responsibility to others (Piedmont, 1999). Generally, there are two attitudes in relation to otherness (e.g., other beings/dream characters) in lucid dreams: more ego-logical (accepting the dream as a self-created private experience and therefore the lucid dreamers can do whatever they want in this state) and more eco-logical (accepting the dreams as a more transcendent experience and treating other beings in lucid dreams as autonomous independent agents) (Sparrow, 2014). Evidently, the two stances would affect Connectedness rather differently.

Mystical lucid dream experience was apparently associated with lucid dream frequency (as chances for mystical lucid dream experience would naturally increase the more lucid dreams the individual has) and also with all facets of spiritual transcendence (Table 3). When controlled for intercorrelations (Table 6), a more revealing picture emerged. First, the strongest predictor of spiritual transcendence was Interpretation, implying that the way the experience is interpreted plays a more important role in relation to spirituality than the actual experience itself. Within Hood's (1975) Mysticism Scale, the Interpretation facet includes the aspects of positive affect, sacredness and noetic quality (i.e., sense of knowledge). Using the same questionnaire, Chen et al. (2012) found that Chinese Christians and non-Christians more strongly differed on the Interpretation factor rather than two experiential ones (i.e. Introvertive and

Extrovertive Mysticism), similarly indicating that experiences themselves might be more universal, while their interpretation tends to be more different depending on the spiritual and religious background of an individual. In relation to dreams, a study by Phillips and Pargament (2002) showed that the more sacred the dream was perceived, the more it led to beneficial outcomes, including psychological and spiritual growth, supporting the importance of Interpretation.

Second, there was a difference in the direction of mystical lucid dream experience: extrovertive but not introvertive mysticism was a predictor of higher spiritual transcendence (Table 6). According to Stace (1960), upon whose theory the scale was constructed, the extrovertive mystical experience "looks outward through the senses" (p. 61) in apprehending Oneness and Unity in all or through the multiplicity of the world, while the introvertive mystical experience "looks inward into the mind" (p. 61) to withdraw from the world and achieve pure consciousness devoid of any mental content. While introvertive mystical experience does represent the ultimate goal of Tibetan dream yoga (Tarab Tulku, 2000; Wangyal, 1998), it appears that the engagement with the dream world while lucid dreaming, seeing it alive and interconnected, rather than withdrawing from it, fosters greater spiritual transcendence in lucid dreamers. Similarly, in Tibetan dream yoga, the adepts are first advised to actively engage with the lucid dream world by developing the mastery of dream control and mental flexibility, and only in very advanced stages of the practice are they encouraged to go beyond the dream appearances into introvertive mysticism-type experiences (Tarab Tulku, 2000). While an argument can be made that all lucid dream experiences are oriented "inward to the mind" rather than "outward through the senses," both lucid and non-lucid dreaming provide a very naturalistic simulation of reality and perception, based on corresponding neural mechanisms (Erlacher & Schredl, 2008), making the distinction (inward vs. outward) just as valid as in the waking state.

Several limitations of the present research must be acknowledged. First, the sample was self-selected and recruited online through social

network groups related to lucid dreaming; therefore the findings might not be representative of all lucid dreamers. For instance, the participants may have had more positive attitudes to lucid dreaming (Schredl et al., 2019). Further, most of the participants were young adults from the Western countries (Europe and Northern America), which also limits generalizability, especially in relation to different cultural contexts. The religious and spiritual affiliation of the participants was not surveyed in the present research, which may also have an influence on the present findings, for example, depending on whether spirituality is perceived from a more traditional religious context or from a more secular perspective. On the other hand, spirituality was not explicitly mentioned in the survey description and the questionnaire included a number of other items unrelated to spirituality (Stumbrys, 2018b, 2021), thus minimizing possible biases towards spirituality. Further, as mentioned above, the data is cross-sectional and not longitudinal; therefore causal relationships cannot be established. Future research would certainly benefit from longitudinal studies observing lucid dreamers over a longer period, registering their mystical experiences in lucid dreams and measuring changes in their spiritual attitudes. Furthermore, it would be very interesting to follow up a group of lucid dreamers who are actively using their lucid dreams as a means of spiritual practice whether as a part of established tradition, such as Tibetan dream yoga, or as a part of their individual spiritual path.

In summary, the present findings support the relationship between lucid dreaming and spirituality. It is suggested that having recurrent lucid dreams and mystical type experiences in them fosters spiritual growth; however, due to the correlational nature of the present research, no causal effects can be inferred, and longitudinal research confirming this is needed. To facilitate this process, lucid dreamers could be advised to be actively engaged with their dream worlds, treat them as sacred; acknowledge and appreciate otherness in the lucid dream state by seeing others in lucid dreams as sentient beings, though realizing the oneness among the multiplicity of forms; cultivate the sense of joy and positive affect in their lucid dreams; and seek spiritual experiences, e.g. connecting with Divine (Bogzaran,

1990), while being lucid in a dream. In such a way, lucid dreaming may serve as a genuine spiritual practice, especially within a more secular context of self-spirituality (Heelas, 1996), as lucid dreaming has a rather positive and credible profile within the general population (Lüth et al., 2018).

References

- Baird, B., Riedner, B. A., Boly, M., Davidson, R. J., & Tononi, G. (2019). Increased lucid dream frequency in long-term meditators but not following Mindfulness-Based Stress Reduction training. *Psychology of Consciousness: Theory, Research, and Practice*, 6(1), 40–54. <https://doi.org/10.1037/cns0000176>
- Bogzaran, F. (1990). Experiencing the divine in the lucid dream state. *Lucidity Letter*, 9(1), 169–176.
- Bulkeley, K. (1996). Dreaming as a spiritual practice. *Anthropology of Consciousness*, 7(2), 1–15. <https://doi.org/10.1525/ac.1996.7.2.1>
- Chen, Z., Zhang, Y., Hood, R. W., & Watson, P. J. (2012). Mysticism in Chinese Christians and non-Christians: Measurement invariance of the Mysticism Scale and implications for the mean differences. *International Journal for the Psychology of Religion*, 22(2), 155–168. <https://doi.org/10.1080/10508619.2011.638586>
- Davis, D. E., Rice, K., Hook, J. N., Van Tongeren, D. R., DeBlaere, C., Choe, E., & Worthington, E. L., Jr. (2015). Development of the Sources of Spirituality Scale. *Journal of Counseling Psychology*, 62(3), 503–513. <https://doi.org/10.1037/cou0000082>
- de Macêdo, T. C. F., Ferreira, G. H., de Almondes, K. M., Kirov, R., & Mota-Rolim, S. A. (2019). My dream, my rules: Can lucid dreaming treat nightmares? *Frontiers in Psychology*, 10, 2618. <https://doi.org/10.3389/fpsyg.2019.02618>
- Doll, E., Gittler, G., & Holzinger, B. (2009). Dreaming, lucid dreaming and personality. *International Journal of Dream Research*, 2(2), 52–57. <https://doi.org/10.11588/ijodr.2009.2.142>
- Erlacher, D., & Schredl, M. (2008). Do REM (lucid) dreamed and executed actions share the same neural substrate? *International Journal of Dream Research*, 1(1), 7–13. <https://doi.org/10.11588/ijodr.2008.1.20>

- Esser, T. (2014). Kundalini and non-duality in the lucid dreaming state. In R. Hurd & K. Bulkeley (Eds.), *Lucid dreaming: New perspectives on consciousness in sleep* (Vol. 2, pp. 233–263). Praeger.
- Faber, P. A., Saayman, G. S., & Touyz, S. W. (1978). Meditation and archetypal content of nocturnal dreams. *Journal of Analytical Psychology*, 23(1), 1–22. <https://doi.org/10.1111/j.1465-5922.1978.00001.x>
- Heelas, P. (1996). *The New Age movement: The celebration of the self and the sacralization of modernity*. Blackwell.
- Hood, R. W. (1975). The construction and preliminary validation of a measure of reported mystical experience. *Journal for the Scientific Study of Religion*, 14(1), 29. <https://doi.org/10.2307/1384454>
- Hood, R. W., Morris, R. J., & Watson, P. J. (1993). Further factor analysis of Hood's Mysticism Scale. *Psychological Reports*, 73(Suppl. 3), 1176–1178. <https://doi.org/10.2466/pr0.1993.73.3f.1176>
- Kelzer, K. (2014). The mystical potential of lucid dreaming. In R. Hurd & K. Bulkeley (Eds.), *Lucid dreaming: New perspectives on consciousness in sleep* (Vol. 2, pp. 302–317). Praeger.
- Konkoly, K., & Burke, C. T. (2019). Can learning to lucid dream promote personal growth? *Dreaming*, 29(2), 113–126. <https://doi.org/10.1037/drm0000101>
- LaBerge, S. (1985). *Lucid dreaming. The power of being awake and aware in your dreams*. Tarcher.
- LaBerge, S., Levitan, L., & Dement, W. C. (1986). Lucid dreaming: Physiological correlates of consciousness during REM sleep. *Journal of Mind and Behavior*, 7(2–3), 251–258.
- Lüth, K., Appel, K., Pipa, G., & Schredl, M. (2018). The public perception of lucid dreaming and its research. *International Journal of Dream Research*, 11(2), 186–196. <https://doi.org/10.11588/ijodr.2018.2.51105>
- McNamara, P., & Bulkeley, K. (2015). Dreams as a source of supernatural agent concepts. *Frontiers in Psychology*, 6, 283. <https://doi.org/10.3389/fpsyg.2015.00283>
- Mota-Rolim, S. A., Brandão, D. S., Andrade, K. C., de Queiroz, C. M. T., Araujo, J. F., de Araujo, D. B., & Ribeiro, S. (2015). Neurophysiological features of lucid dreaming during N1 and N2 sleep stages: Two case reports. *Sleep Science*, 8(4), 215. <https://doi.org/10.1016/j.slsci.2016.02.093>
- Mota-Rolim, S. A., Bulkeley, K., Campanelli, S., Lobão-Soares, B., De Araujo, D. B., & Ribeiro, S. (2020). The dream of God: How do religion and science see lucid dreaming and other conscious states during sleep? *Frontiers in Psychology*, 11, 555731. <https://doi.org/10.3389/fpsyg.2020.555731>
- Norbu, N. (1992). *Dream yoga and the practice of natural light* (M. Katz, Ed.). Snow Lion.
- Phillips, R. E., & Pargament, K. I. (2002). The sanctification of dreams: Prevalence and implications. *Dreaming*, 12(3), 141–153. <https://doi.org/10.1023/A:1020166208750>
- Piedmont, R. L. (1999). Does spirituality represent the sixth factor of personality? Spiritual transcendence and the Five-Factor Model. *Journal of Personality*, 67(6), 985–1013. <https://doi.org/10.1111/1467-6494.00080>
- Piedmont, R. L. (2007). Cross-cultural generalizability of the Spiritual Transcendence Scale to the Philippines: Spirituality as a human universal. *Mental Health, Religion & Culture*, 10(2), 89–107. <https://doi.org/10.1080/13694670500275494>
- Piedmont, R. L., & Leach, M. M. (2002). Cross-cultural generalizability of the Spiritual Transcendence Scale in India: Spirituality as a universal aspect of human experience. *American Behavioral Scientist*, 45(12), 1888–1901. <https://doi.org/10.1177/0002764202045012011>
- Saunders, D. T., Roe, C. A., Smith, G., & Clegg, H. (2016). Lucid dreaming incidence: A quality effects meta-analysis of 50 years of research. *Consciousness and Cognition*, 43, 197–215. <https://doi.org/10.1016/j.concog.2016.06.002>
- Schädlich, M., & Erlacher, D. (2012). Applications of lucid dreams: An online study. *International Journal of Dream Research*, 5(2), 134–138. <https://doi.org/10.11588/ijodr.2012.2.9505>
- Schredl, M. (2004). Reliability and stability of a dream recall frequency scale. *Perceptual and Motor Skills*, 98, 1422–1426. <https://doi.org/10.2466/pms.98.3c.1422-1426>

- Schredl, M., & Goritz, A. S. (2015). Changes in dream recall frequency, nightmare frequency, and lucid dream frequency over a 3-year period. *Dreaming*, 25(2), 81–87. <https://doi.org/10.1037/a0039165>
- Schredl, M., Rieger, J., & Göritz, A. S. (2019). Measuring attitude toward lucid dreams: A six-item scale. *Dreaming*, 29(1), 91–99. <https://doi.org/10.1037/drm0000094>
- Snyder, T., & Gackenbach, J. (1988). Individual differences associated with lucid dreaming. In J. Gackenbach & S. LaBerge (Eds.), *Conscious mind, sleeping brain: Perspectives on lucid dreaming* (pp. 221–259). Plenum Press. https://doi.org/10.1007/978-1-4757-0423-5_10
- Sparrow, G. S. (2014). A non-dual perspective on the question of dream control. In R. Hurd & K. Bulkeley (Eds.), *Lucid dreaming: New perspectives on consciousness in sleep* (Vol. 1, pp. 325–346). Praeger.
- Stace, W. T. (1960). *Mysticism and philosophy*. Palgrave Macmillan.
- Stocks, A., Carr, M., Mallett, R., Konkoly, K., Hicks, A., Crawford, M., Schredl, M., & Bradshaw, C. (2020). Dream lucidity is associated with positive waking mood. *Consciousness and Cognition*, 83, 102971. <https://doi.org/10.1016/j.concog.2020.102971>
- Streib, H., Klein, C., Keller B., & Hood, R. W. (2021). The Mysticism Scale as measure for subjective spirituality: New results with Hood's M-Scale and the development of a short form. In A. L. Ai, P. Wink, & K. A. Harris (Eds.) *Assessing spirituality in a diversified world* (pp. 467–491). Springer. https://doi.org/10.1007/978-3-030-52140-0_19
- Stumbrys, T. (2018a). Bridging lucid dream research and transpersonal psychology: Toward transpersonal studies of lucid dreams. *Journal of Transpersonal Psychology*, 50(2), 176–193.
- Stumbrys, T. (2018b). Lucid nightmares: A survey of their frequency, features, and factors in lucid dreamers. *Dreaming*, 28(3), 193–204. <https://doi.org/10.1037/drm0000090>
- Stumbrys, T. (2021). Dispelling the shadows of the lucid night: An exploration of potential adverse effects of lucid dreaming. *Psychology of Consciousness: Theory, Research, and Practice*. Advance online publication. <https://doi.org/10.1037/cns0000288>
- Stumbrys, T., & Erlacher, D. (2012). Lucid dreaming during NREM sleep: Two case reports. *International Journal of Dream Research*, 5(2), 151–155. <https://doi.org/10.11588/ijodr.2012.2.9483>
- Stumbrys, T., & Erlacher, D. (2016). Applications of lucid dreams and their effects on the mood upon awakening. *International Journal of Dream Research*, 9(2), 146–150. <https://doi.org/10.11588/ijodr.2016.2.33114>
- Stumbrys, T., Erlacher, D., & Malinowski, P. (2015). Meta-awareness during day and night: The relationship between mindfulness and lucid dreaming. *Imagination, Cognition and Personality*, 34(4), 415–433. <https://doi.org/10.1177/0276236615572594>
- Stumbrys, T., Erlacher, D., & Schredl, M. (2013a). Reliability and stability of lucid dream and nightmare frequency scales. *International Journal of Dream Research*, 6(2), 53–56. <https://doi.org/10.11588/ijodr.2013.2.11137>
- Stumbrys, T., Erlacher, D., & Schredl, M. (2013b). Testing the involvement of the prefrontal cortex in lucid dreaming: A tDCS study. *Consciousness and Cognition*, 22(4), 1214–1222. <https://doi.org/10.1016/j.concog.2013.08.005>
- Tarab Tulku. (2000). Lucid dreaming: Exerting the creativity of the unconscious. In G. Watson, S. Batchelor, & G. Claxton (Eds.), *The psychology of awakening: Buddhism, science and our day-to-day life* (pp. 271–283). Weiser Books.
- Wangyal, T. (1998). *The Tibetan yogas of dream and sleep*. Snow Lion.

About the Author

Tadas Stumbrys, PhD, is Assistant Professor in psychology at Vilnius University in Lithuania and Core Faculty at Alef Trust, a UK based non-profit organization pioneering transformative postgraduate education via distance learning in consciousness, spirituality and transpersonal psychology, including MSc and PhD programmes in collaboration with Liverpool John Moores University. His research interests span the fields of dreams, consciousness,

mindfulness and transpersonal psychology, with a particular focus on the phenomenon of lucid dreaming on which he published extensively. Tadas served on the Board of Directors for the International Association for the Study of Dreams and is on the Editorial Board for International Journal of Dream Research. He is also Editor of Alef Trust scholarly journal *Consciousness, Spirituality & Transpersonal Psychology*.

About the Journal

The *International Journal of Transpersonal Studies* is a Scopus listed peer-reviewed academic journal, and the largest and most accessible scholarly periodical in the transpersonal field. IJTS has been in print since 1981, is published by Floraglates Foundation, sponsored in part by Attention Strategies, and serves as the official publication of the International Transpersonal Association. The journal is available online at www.transpersonalstudies.org, and in print through www.lulu.com (search for IJTS).