

The healing and transformative potential of lucid dreaming for treating clinical depression

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Summary. Lucid dreamers, who become aware within their dreams that they are dreaming, are able to use this state of consciousness for self-exploration and self-development, including the possibilities of therapeutic work. Preliminary evidence suggests that lucid dreaming may contribute to mental health. This explanatory sequential mixed methods study explored the relationship between lucid dreaming and depression. One hundred sixty-three participants, mostly lucid dreamers and many of whom had experienced depression, completed a survey investigating the relationship between lucid dreams and depression. Six survey participants then took part in in-depth qualitative interviews to elucidate how experienced lucid dreamers, who had been previously diagnosed with or prescribed medication for depression, utilized their lucid dreams to purposefully and practically access and alleviate the crux of their depression in the past. Both quantitative and qualitative data support the idea that lucid dream work may be an effective treatment for mental health issues, including clinical depression. Three major themes that emerged from the qualitative interviews – self-exploration, creativity and empowerment, spiritual and transpersonal – illustrate possible mechanisms of healing and transformation in the lucid dream state. Future studies should explore the potentials of lucid dreaming treatment for depression within a clinical or therapeutic programme.

Keywords: lucid dreaming, depression, lucid dream treatment, mental health, healing, self-development

1. Introduction

Lucid dreaming is a state of consciousness where the dreamer recognizes they are dreaming and can therefore influence the ongoing dream narrative (LaBerge, 1985). When dreamers become lucid, the previously deactivated dorsolateral prefrontal cortex becomes active, and there is a shift in electrical activity within the brain allowing for increased directed thought, metacognition and awareness of being (Voss et al., 2009). Whilst it is common for lucid dreamers to use their time spent lucid engaging in pleasurable activities such as flying or sex (Stumbrys et al., 2014), a number of studies are now investigating the practical applications for lucid dreaming in association with improving mental health and well-being (Doll et al., 2009; Erlacher et al., 2020; Konkoly & Burke, 2019). Evidence suggests that lucid dreaming seems to possess therapeutic properties and positively influence the dreamers waking life due to an improvement in managing mental impulses, emotions, and conflicts (Gackenbach & LaBerge, 1988).

Lucid dreamers can utilize their dreams to practice and rehearse particular tasks, creative problem solve, ask dream characters to help them generate solutions, and overcome fears (de Macêdo et al., 2019; Erlacher & Schredl, 2010; Stumbrys & Daniels, 2010). For example, individuals who regularly have nightmares can use lucid dream treatment

(LDT) to face their traumatic experiences, change the nightmare outcome, and therefore relieve their suffering (Gavie & Revonsuo, 2010; Spoormaker et al., 2003; Spoormaker & van den Bout, 2006; Zadra & Pihl, 1997). In addition, the increased ability to master emotional awareness during lucid nightmares further reinforced the lucid dreamers' expectations that they could create changes during fearful or anxiety provoking situations in their waking state (Brylowski, 1990).

Lucid dreams provide an extremely vivid simulation on the environment in comparison to mental rehearsal purely in the waking or meditative state (Tholey, 1990). Therefore, lucid dreams can deliberately be used to practice skills and subsequently, skill enhancement that takes place inside the lucid dream is transferred to improve performance in the waking state (Erlacher & Schredl, 2010; Stumbrys et al., 2016). Based on these findings, developing lucidity and this aspect of lucid dream practice provides an opportunity for people to develop lucidity as a tool to cope with intense negative emotions (Stumbrys & Erlacher, 2017a). Indeed, the majority of lucid dreamers do perceive benefits of lucid dreaming on their physical and especially mental health (Erlacher et al., 2020) and about 40% of lucid dreamers report using their lucid dreams specifically for physical and mental healing (Stumbrys & Erlacher, 2016).

Yet a study by Taitz (2011) found a direct connection between lucid dreaming and depression: In a group of undergraduate students following a lucid dream training programme the frequency of lucid dreams was linked to greater depression. Similarly, the findings by Aviram and Soffer-Dudek (2018) show that active engagement with lucid dreaming techniques is associated with an increased propensity to psychopathology, including depression.

Depression, otherwise known as major depressive disorder or clinical depression is a potentially life-threatening

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mood disorder. This psychopathological state involves a myriad of persistent negative feelings including sadness, hopelessness, worthlessness, fatigue, and a loss of interest or pleasure in activities that were previously enjoyed (Bondy, 2002). Depression is a common mental health disorder affecting up to 20% of population (Richards, 2011). In spite of the prevalence, the search for effective treatments for depression is still ongoing, with the most common treatments being antidepressants (such as selective serotonin reuptake inhibitors, serotonin and norepinephrine reuptake inhibitors, tricyclic antidepressants) and psychotherapy (Olfson et al., 2016). Data submitted to the United States Food and Drug Administration, however, shows that the general response rate to antidepressants is relative to placebo, and often fails to reach clinical significance (Kirsch et al., 2008).

One of the promising approaches in preventing depressive relapse is mindfulness-based cognitive therapy (Kuyken et al., 2016), which focuses on developing non-judgmental present-moment awareness and metacognitive capacity to help individuals to disengage from depressive thoughts and feelings. The other promising approach, that is gaining momentum recently, is ketamine, which produces rapid antidepressant effects (Krystal et al., 2019). Alongside its neurochemical mechanisms, such as increasing glutamate release, ketamine also induces an altered state of consciousness marked by reduced alpha power in the precuneus and temporal-parietal junction (Vlisides et al., 2018). The subjective experience of 'high', enhanced perception and uplifted mood appear to be another path of action in ketamine depression treatment (Griffiths et al., 2021).

Notably, lucid dreaming also shares some common ground with these treatment modalities. Akin to mindfulness, lucid dreaming also involves similar metacognitive neural mechanisms, in particular in the domain of thought monitoring, and frontopolar brain areas associated with these functions are larger in lucid dreamers (Filevich et al., 2015). Moreover, dispositional mindfulness in wakefulness has been shown to be associated with lucid dream frequency, indicating the continuity of metacognition across waking and dreaming (Stumbrys et al., 2015). Similarly to ketamine, lucid dreaming is also an altered holotropic (i.e. "oriented toward wholeness", Grof, 2012) state of consciousness (Stumbrys, 2018), associated with the brain activity not only in the frontal regions, but also in the precuneus and temporal-parietal areas (Dresler et al., 2012). These correspondences, as well as widely self-reported positive effects of lucid dreaming on mental health, especially by those lucid dreamers who have a greater dispositional mindfulness and

a greater transpersonal trust (Erlacher et al., 2020), indicate that LDT might be a feasible approach for depression treatment. However, there has not been any thorough research conducted on LDT in depression and how the therapeutic properties of lucid dreams may aid in mitigating depression or similar types of cognitive disorders.

Taitz's (2011) research results suggest that individuals with greater depression in fact have more lucid dreams, and he therefore advocates the necessity for utilizing strategies seen in LDT's for more generalized mental issues, such as depression. Developing lucidity as a tool to cope with intense negative emotions provides an opportunity for self-healing, psychological growth, and integrating traumatic experiences (Stumbrys & Erlacher, 2017a). Ergo, it is likely that lucid dreaming can also be utilized as good application for mitigating and coping with other mental and emotional disorders, such as depression. Despite this, there are currently no studies eliciting how lucid dreamers have utilized the lucid dream state for successfully working through depression. Lucid dreaming may be an affordable, rapid, and holistic method for treating psychological problems. The aim of this research was to investigate and highlight how lucid dreamers can utilize their lucid dreams to purposefully and practically access and alleviate the crux of their depression.

2. Method

2.1. Design

The study employed a sequential explanatory mixed-method design (Creswell & Plano Clark, 2017). The first part of the study included administering a quantitative survey to examine the links between lucid dreaming and depression and explore whether lucid dreamers with the experience of depression have used their lucid dreams to alleviate it. This was followed by the second - qualitative - part of the study in which in depth interviews were conducted with a subsample of lucid dreamers, who had the experience of depression and used previously their lucid dreams to alleviate it, to shed light on possible mechanisms of lucid dream treatment for depression.

2.2. Participants

One hundred sixty-three participants (94 female, 66 male and 3 non-binary) from 30 countries around the world completed the initial survey. Their ages ranged from 18 – 78 years, with the mean age of 37.8 (SD = 14.2). A subsample of six participants, including three males and three females,

Table 1. Participants selected for the qualitative study.

Pseudonym	Age	Gender	Profession	Lucid Dream Frequency	PHQ-8 Rating
Evan	28	M	Psychology Student	1/month	9
Johann	29	M	Cognitive Science Student	1/month	7
Monica	27	F	Peace Corps	1/month	5
Lisa	28	F	Acupuncturist	1/week	4
Kate	45	F	Art Therapist	1/week	13
Nicholai	18	M	Computer Science Student	1/month	5

was selected for in-depth qualitative interviews (see procedure below). Their characteristics are depicted in Table 1.

2.3. Materials

The survey included a question on the frequency of lucid dreams and this was measured with an eight-point rating scale (Stumbrys et al., 2013): 0 = never, 1 = less than once a year, 2 = about once a year, 3 = about 2-4 times a year, 4 = about once a month, 5 = about 2-3 times a month, 6 = about once a week, 7 = several times a week. To ensure the comprehension of lucid dreaming, the following 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, or to influence the action of the dream actively, or to observe the course of the dream passively". This scale was shown to have a good re-test reliability ($r = .89, p < .001, N = 93$; Stumbrys et al., 2013). Further, participants who had lucid dreams were asked to indicate (using a five-point rating scale: 0 = strongly disagree, 1 = disagree, 2 = neither agree nor disagree, 3 = agree, 4 = strongly agree) if their lucid dreaming experience has helped them in some way. Four categories were provided: (1) lucid dreaming helped me when I was feeling depressed or low; (2) I have experienced some form of physical or mental healing from lucid dreaming; (3) lucid dreaming helped me to overcome something (e.g., phobia / anxiety / bad moods / public speaking etc.); (4) I have experienced a transformation (a dramatic change in my life) from lucid dreaming. Additionally, lucid dreamers were asked to indicate whether their lucid dreams occurred spontaneously or by using some techniques (i.e. deliberately) on a five-point scale: 0 = all my lucid dreams occurred spontaneously (without using any techniques); 1 = most of my lucid dreams were spontaneous, but some lucid dreams were deliberately induced (by using some lucid dream induction technique); 2 = about half of my lucid dreams were spontaneous and the other half were deliberately induced; 3 = most of my lucid dreams were deliberately induced, but some lucid dreams also occurred spontaneously; 4 = all my lucid dreams were deliberately induced.

Depression was assessed using the eight item version of the depression module of Patient Health Questionnaire (PHQ-8) (Kroenke et al., 2009). It is a slightly abbreviated version of PHQ-9 that is used to measure the severity of depression by scoring each of the 9 DSM-V criteria as "0" (not at all) to "3" (nearly every day). PHQ-9 score ≥ 10 was shown to have a sensitivity of 88% and a specificity of 88% for major depression (Kroenke et al., 2001). PHQ-8 omits the ninth PHQ-9 question assessing suicidal or self-injurious thoughts, but has very similar diagnostic properties as PHQ-9 (Kroenke et al., 2009). Further, two additional questions were included (1) if participants having been previously prescribed with antidepressants or diagnosed as depressed or with some form of depressive disorder; and if (2) they are being currently prescribed with antidepressants or being diagnosed as depressed or with some form of depressive disorder.

2.4. Procedure

Survey participants were recruited via online advertisements (posted to lucid dreaming related internet forums, social media groups, and via personal email lists and website links). The survey served as a screening instrument to select the participants for the qualitative study, which employed the

method of Interpretative Phenomenological Analysis (IPA). IPA focuses on investigating how individuals take meaning from their lived experiences (Pietkiewicz & Smith, 2014); which is particularly suited to researching unexplored territory (Reid et al., 2005), a point of relevance for this project as there are currently no studies elucidating how the lucid dream state is used for mitigating depression. IPA aims to remain consistent with an idiographic mode of inquiry, making small sample sizes favorable for studies (Smith et al., 2009; Smith & Osborn, 2008). Rather than generating a generalized theory for an entire population, subsequent studies are conducted over time which gradually adds to a more general claim (Smith et al., 1995). Such research approach is aiming for a purposive, homogeneous sample (Smith et al., 2009); in order to find and select specific individuals experiencing a particular phenomenon, for whom the research question will be significant.

The inclusion criteria for the participant selection for the present qualitative study were (1) responding affirmatively to having been previously prescribed with antidepressants or diagnosed as depressed or with some form of depressive disorder; (2) a lucid dream frequency of 1/month or more; (3) selected "strongly agree" or "agree" to one or more on the four statements about positive effects of lucid dreaming (see Materials). The exclusion criteria were responding positively to being currently prescribed with antidepressants or being currently diagnosed as depressed or with some form of depressive disorder. There was a total of 28 survey respondents who fit these criteria of which 12 participants successfully completed the full interview process. Three male and three female participants were then randomly selected for undergoing the in-depth data analysis procedure.

The ethical approval for this study was granted by the Professional Development Foundation. Eligible participants received detailed information on the study and interview process. All participants were required to sign an informed consent form indicating their permission to be a part of the study. An explanation of a right to withdraw from the study was given and consent to record the interview was granted. Anonymity and confidentiality was preserved by creating pseudonyms and ensuring interview took place in a private environment. Online semi-structured interviews were conducted using the platform Zoom. Questions were comprised of open-ended and non-directive questions formulated to focus on lucid dream experiences, depression, healing, and transformation. Interviews lasted between 90-120 minutes. Speaking about depression could be a potentially stressful experience, so interviewees were reminded that they were able to stop or pause the interview at any time. Contact information for participants to speak with a professional who specialized in depression was prepared. Thankfully, none of the participants expressed any distress during the interview process.

2.5. Data analysis

IBM SPSS Version 22 was used for quantitative data analysis. Qualitative data analysis was carried by using a 6-step IPA approach (Smith et al., 2009). (1) Transcribing each interview in full by re-listening to and re-watching the recordings whilst utilizing the right margin for analytic comments to process the data in its entirety. (2) Analytic comments are used to cultivate emergent themes. Emergent themes reflect the source material and maintain the depth and complexity of the most important and interesting data whilst

simultaneously reducing the volume. (3) Emergent themes are alphabetized and input into an excel spreadsheet. (4) Emergent themes for each participant are cross analyzed and compared whilst searching for convergence and divergence. Themes lacking cross connections are dropped. (5) Prominent emergent themes across all six cases, suggesting a common element in the healing and transformative potential of lucid dream work for mitigating depression, are represented as superordinate themes. (6) Further analysis of superordinate themes is written up distinguishing participant's experiential accounts, the researcher's interpretations, and linking analysis to literature, reflections, limitations, and ideas for future development.

IPA is an approach which draws upon hermeneutics and integrates idiography, which purports to an in-depth analysis of single cases, individual perspectives, and unique contexts, in lieu of general or universal evaluation (Pietkiewicz & Smith, 2014; Smith et al., 1995). Typically, it is a methodology exploring existential matters of importance for the participant which are transformative, bring change, and demand reflection and (re)interpretation (Eatough & Smith, 2017). Based on the above findings and indication that IPA researchers are successfully investigating positive strategies and attributes contributing to quality of life whilst living with particular health conditions (Reynolds et al., 2008; Reynolds & Prior, 2003), it was concluded that IPA would be a propitious methodology to investigate lucid dreaming in relationship to depression.

3. Results

3.1. Survey data

The most of respondents ($n = 153$, 93.9% of the sample) reported to have lucid dream experience. For the majority of lucid dreamers (68.6%), lucid dreams occurred either entirely or more often spontaneously. The average PHQ-8 depression score was 9.3 ± 6.7 for the whole sample and 9.2 ± 6.7 for the lucid dreamers. Among lucid dreamers, 61 (39.9%) reported to be prescribed with antidepressants or being diagnosed as depressed currently and 99 (64.7%) previously. There was no association between lucid dream frequency and depression score for the entire sample (Spearman's $\rho = -.02$, $p = .834$). For lucid dreamers, an additional linear regression analysis was conducted, with PHQ-8 depression score as dependent variable and lucid dream frequency, spontaneous/deliberate lucid dreaming, age, and gender as independent variables (Table 2). None of independent variables were predictors of depression severity.

Table 2. Regression analysis for depression severity (PHQ-8 score) in lucid dreamers

Variable	Beta	t	p
Age	-.13	-1.58	.117
Gender (Female < Male)	-.11	-1.33	.187
Lucid dream frequency	-.01	-0.13	.900
Spontaneous < deliberate lucid dreaming	-.13	-1.61	.110

The majority of lucid dreamers agreed or strongly agreed to the statements that lucid dreaming helped them when they were feeling depressed or low; that they have experienced some form of physical or mental healing from lucid dreaming; and that they have experienced a transformation (a dramatic change in their life) from lucid dreaming (Figure 1). Less than half agreed with the statement that lucid dreaming helped them to overcome something (e.g., phobia / anxiety / bad moods / public speaking etc.), however, the proportion of lucid dreamers who disagreed or strongly disagreed with any of the statements was rather small (between 7.8 - 16.7%, Figure 1).

3.2. Interviews

Three superordinate themes - self-exploration, creativity & empowerment, spiritual & transpersonal - were present for all six participants who participated in the qualitative study (Figure 2). Verbatim citations below illustrating the themes are taken from the interview transcripts.

3.2.1 Self-exploration

This is a huge theme in lucid dream work and professedly the reason behind why many will choose to explore lucid dreaming in the first place.

There was a period of depression and I was like I really need to do something about this and I'm gonna try and use lucid dreaming. So, I went into the lucid dream and I was seeking out an answer: how do I help my depression? (Evan)

The major superordinate concepts explored through self-exploration in the lucid dream state were: experiencing new emotions, speaking with conscious dream characters and parts of the self, and re-wiring depressive thought patterns.

Experiencing New Emotions. Self-exploration entails the unearthing and tangible experience of new emotions. Participants recognized that their emotions could be worked with and explored in the lucid dream state in ways that were not attainable for them in the waking state. Symbolic representations of emotions were also uncovered through the dream scenery and environments.

I found it very interesting to see myself in the mirror and the mirror often reflected how I was feeling. (Johann)

My darker dreams are literally darker. The lights, shades, and colors are all greyer and gloomier. (Nicholai)

These new emotional experiences then appear to linger and transfer to the waking state.

I have a lucid dream and can regain a happy and beautiful experience... it will stay with me for days after and it helps me in my conscious wake. (Monica)

A good lucid dream can last the whole day. It can kick-start your day and keep you warm. If it's interesting as well, you will think about it at random times during the day and it can keep you [feeling] up (Nicholai)

Speaking with Conscious Dream Characters and Parts of the Self. Participants voiced being able to recognize parts of the self through the age of their lucid dream characters.

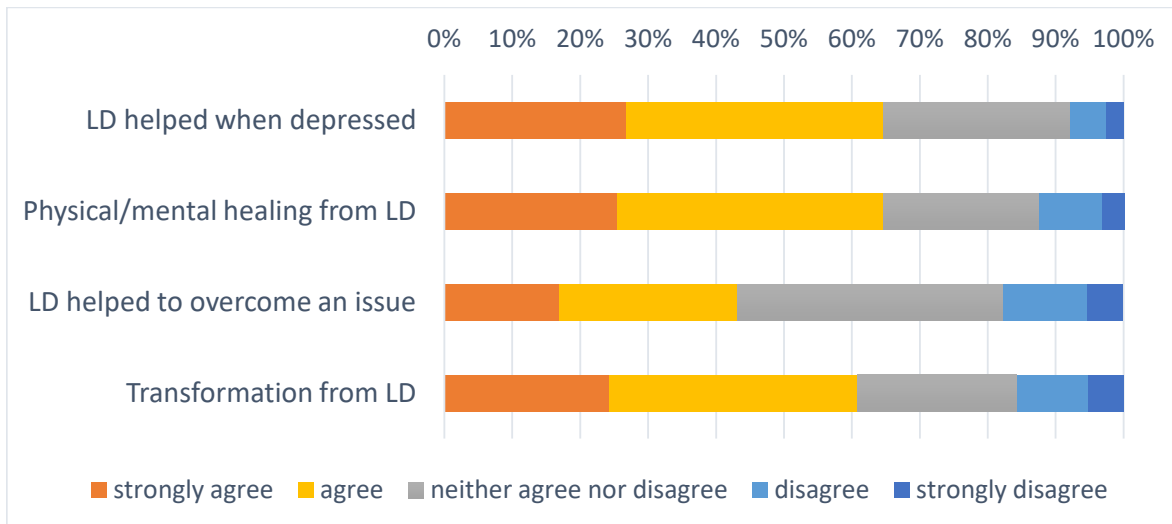


Figure 1. Perceptions of lucid dreamers on healing and transformative effects of lucid dreams

They are different layers of myself so we could also say some form of higher or lower consciousness. Sometimes in the dream I am 16 and sometimes 6. They also define the content of the dream. (Johann)

Dream figures can also appear as conscious and intelligent. Alongside support, characters can also facilitate a space to overcome fears or phobias.

I have a character I call a dream guide... if I was to put it briefly there's been multiple experiences that have provided me with wisdom... I wanted to overcome fear using lucid dreaming... he helped me to do that and played a part in that whole lucid dream. (Evan)

I have probably about 3 or 4 people...they appear to have their own life with their own stuff going on. (Lisa)

Curiously, reoccurring characters would often intentionally reveal to the dreamer that they were dreaming, triggering lucidity. All participants voiced some confusion as to why the characters would be purposefully granting them lucidity in the dream. Interactions with dream characters and parts of the self can on occasion be disappointing and unsatisfying. Participants hypothesized that the approach towards dream characters plays a part in the outcome received.

I had the feeling that whenever I was asking the dream to show me something before, I was somehow not respecting what it wanted to show me. Now I am trying to see it as an equal and not something I can command what to do. That seems to work better. (Johann)

Re-writing Depressive Thought Patterns. The six participants had all been previously prescribed with antidepressants, SSRIs (Selective Serotonin Reuptake Inhibitors), and other related medications for treating mental health. They each had their own varying reasons for wanting to stop the medications.

Ultimately, I didn't want to have to take a pill to achieve a certain state of happiness. (Monica)

Some participants experienced terrifying and reoccurring nightmares that were extremely stressful. Lucid dreaming enabled them to take back control over the negative thought patterns.

One night I had the [reoccurring] dream and the man got in the car and turned around and I said NO! I don't ever want this to happen anymore! He said okay and just got out the car and that was the last time I ever had that dream... I woke up and thought oh... I can change things. I was ready for it to happen again but it didn't. (Kate)

Participants described how changed thinking patterns made the biggest impact on their lives.

Overall, it was a bad day for me but – I was fine! It didn't affect me emotionally like it would have done in the past... That was the biggest noticeable difference. Having things that would usually upset me or get me down and just being able to brush it off and say – wow! I brushed that off. I wouldn't have been able to do that in the past but now it doesn't even take work for me... (Evan)

I still struggle now and then but I was certainly able to shift my perception of being alive. Through a purpose of being alive which was driven by that lucid dream. (Lisa)

Lucid dreams could be so enjoyable even if I went to sleep crying... its healing in itself but definitely an option for anybody ready to go the extra mile and stay non-medicated. (Nicholai)

Some participants kept track of changes after lucid dreams directly working on their depression which included better appetite, a decreased desire to stay in bed, more energy and motivation, and increased self-esteem.

3.2.2 Creativity and Empowerment

Once a lucid dreamer has developed the skills to induce and control a lucid dream and gained a firm grasp on exploring themselves through inner-work, the next step was to get creative and venture into exploring their surroundings. The four superordinate concepts explored creatively in the lucid dream state were: Fun & Freedom, Problem Solving Techniques, Goals & Achievements, and Inspiration & Integration.

Fun and Freedom. Participants began utilizing the lucid dream space to induce pleasurable experiences.

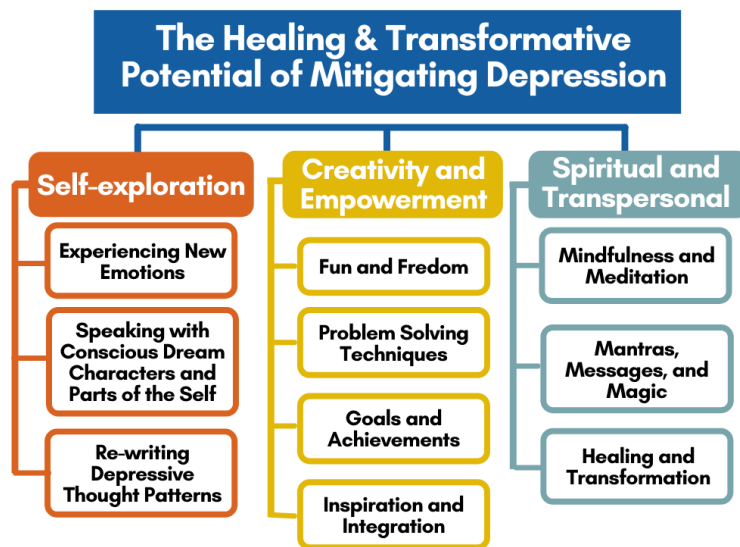


Figure 2. Themes that emerged from the interviews

I had a long list of things I wanted to try like flying into the universe, growing a third arm, 360 vision, transforming into an animal (Johann)

I landed on this island... there was a big party with a lot of people having fun... I started placing people there... it really made me laugh and I really enjoyed that whole lucid dream. (Lisa)

Some of the most prevalent activities explored are flying and sexual encounters. Exploring sex lucidly, as well as providing sexual healing energetically, is also extremely beneficial and healing for those who do not have access to the sexual encounters they desire in their waking life. Similarly, flying enabled participants to feel both incredible and in control.

It just feels great! I feel in control and it is definitely a high. If I wake up after a flying dream I just feel like amazing, you know? (Kate)

Problem Solving Techniques. For those with depression, oftentimes summoning the motivation to get up and take medication or visit a therapist can be an inconceivable task. For individuals who cannot find release or may not be able to afford generalized therapeutic approaches, creating your own lucid dream techniques provides an alternative course for problem solving.

When I'm lucid dreaming I kind of feel like I am able to trick my subconscious and feel like ha-ha! I owned it and I won! I gained control over something that most people don't gain control over. I'm in charge here – I can conjure my surroundings! I can conjure different people! I can do anything I want! I think that has been the biggest shift... it doesn't have boundaries like real life does. It's like hijacking the system. So that was probably my big transformation ever since I entered the world of lucid dreaming. (Monica)

In the altered state of consciousness provided by the lucid dream, it was common that participants could problem solve from seeing their life from an alternative perspective which often time filtered through to shift their waking state

perspective as well.

On one occasion, the dog asked if I would like to change bodies to see how things look from his perspective. When I woke up, I thought I should look from a part of me that has this conflict and look at the whole situation from its point of view which helped me quite a lot to solve the problem. (Johann)

Goals and Achievements. Participants regularly referred to using the dream space to actively work on themselves. Goals ranged from weird and wonderful dream experiences to performing more serious tasks in order to directly assist and improve upon real waking life problems. By engaging in lucid dream rehearsal, the participants are able to justify their experience and feel empowered.

You can see yourself as the maker and not a person that things are happening to. You are a creative problem solver, someone that makes things happen. There's something very powerful when you accept that kind of identity within yourself. (Kate)

It's very rewarding to achieve something in a lucid dream because you know that you will always have that ability in your mind and no one can take it away from you. (Nicholai)

Participants described finding themselves stuck in waking life and recalling their lucid dream experience to help them reach a desired result.

I thought I can't reach it and then thought hey, remember how you felt when you were in the dream? You just have to imagine that and suddenly I was there! (Johann)

When newly tested behaviors work well in lucid dreams, they are consciously created into new mental models and possible ways to respond to challenges in waking life.

Inspiration and Integration. Participants shared a range of ways they were inspired by their lucid dreams and the methods they used to integrate their dream experiences into their waking life.

If I have a really sensory dream with great colors and it's

lucid it will definitely make me feel amazing that day and give me something to bring back to my memory that I can play with and enjoy. I also try to create a sample of them in the wake state. (Kate)

I've only ever done one drawing related to a lucid dream... it seemed to have a very strong message so I took it very seriously. I got it out of my mind and onto a piece of paper. (Lisa)

Remembering and reliving lucid experiences in the waking state is an effective tool for creative expression and additionally for connecting with others. All of the participants expressed how they now wish to use lucid dreaming for helping or connecting with other people.

I'm more than willing to share these beautiful experiences that happen when I'm dreaming and I would say that effects the way that people communicate with me... I'm an introvert so that's a big way I can connect... and that's healing within itself – connecting with other humans and talking about it and sharing those experiences together. (Monica)

3.2.3 Spiritual and Transpersonal

Utilizing their lucid dream practice for spiritual and transpersonal exploration was heartily affirmed by all participants who divulged their experiences to create three superordinate spiritual and transpersonal lucid dream concepts: Mindfulness & Meditation, Mantras, Messages & Magic, and Healing & Transformation.

Mindfulness and Meditation. The participants each had their own experiences to share in connection with meditation and mindfulness helping with depression which developed through their lucid dream practices. Some participants answered that the biggest insights gained from lucid dreaming was the deepening of spiritual and meditation practices which led them to question reality, consciousness, and connection to self and other.

What is our reality? What is dream reality? What is consciousness and ourselves? In the dream we think of our self as being separate from the other dream characters but somehow, we are not. We are creating the dream together. I transfer this idea to waking life... living together with my roommate... every day we are sharing and creating an experience together so this makes us quite connected and dependent upon each other. (Johann)

Some described how incorporating mindfulness and meditation in their lucid dreams enabled prolonged positive emotions in waking life.

The biggest insight was gaining control over the third of your life that you otherwise spend not mindful. I try to incorporate mindfulness in my real life every day and I don't know if I'll live again so... taking charge of that third is a big chunk of time and being in control over that to me is truly living life to the fullest – being able to utilize my sleeping time well. (Monica)

I was able to just meditate, be completely mindful, and let myself feel the good emotion. That lucid dream is probably the most memorable one I've ever had and one I've thought about a lot... it lingered for weeks after! The dream was so powerful it made me feel like it opened

a portal in my brain or something... it made me feel a deeper connection to life itself. (Monica)

The participants all underwent such huge self-transformation with their individual lucid dream practices and depression that many of them began researching it and incorporating it into their work so others can experience the benefits too.

I just made a start of my dissertation and I've been looking into healing pain through lucid dreaming. (Evan)

Lucid dream work therefore, has such a profound effect on the dreamer that they wish to integrate their experiences not only into their own waking lives, but additionally share this transpersonal modality with others as well.

Mantras, Messages, and Magic. One technique or trainable skill that appeared useful for participants was the utilization of a mantra. Mantras are words or phrases that we can use as a psychological backup to remain lucid in our dreams and also as a reminder that we are strong (Johnson, 2017).

So I stop, close my eyes, put my hands over my head [does action] and say the mantra out loud. I will be depression free for a month of three and then boom I get hit with a wave of energy. It goes through me and felt like lightness, it gave me more energy, it made me happier, all these things kind of instantly! (Evan)

They described lucid dreams like tuning into another form of communication and energy.

I feel like there are signs and I'm receiving... I'm receptive when something has an image of importance that's arrived in my dream and its content I can work with. (Kate)

When participants were asked to elucidate the overall messages they received from their individual experience of lucid dreaming, all of the participants used the word magic to describe them.

When it comes to physical and mental healing, a lot of that would correlate to the magic that is actually real. It's not fake magic, this particular magic is very real. Life itself is very magical and being able to draw myself into these magical moments is very healing, especially spiritually. It effects my aura, persona, the way I talk to people, all the results that come out of every decision I make because I am mindful of that connection to the magic. (Monica)

It's truly magic and it's not like anything else spiritually. It works and exists and nobody can deny it just because it can be hard to do. (Nicholai)

Healing and Transformation. Participants had lucid dream experiences which confronted and worked through unresolved blockages, utilized creative techniques to become more empowered, and were successful in their spiritual unfoldment, their identity was shaken and a new relationship emerged in the way they previously defined themselves in the world. One participant noted that it transformed the way he viewed sadness and depression as a man.

I just assumed men do not get sad. I was completely out of touch with my emotions, I guess. (Nicholai)

Interestingly, another participant elucidated that due to the nature of depression, they had very low expectations, and surprisingly, this had no impact on the results.

Even though I read multiple reports of other people healing various ailments with lucid dreaming my expectation was low to non-existent. That was a big transformation factor for me. Not expecting much going in but actually receiving quite a lot. (Evan)

One participant felt that the element of control within lucid dreams made him feel like the situation was fake and compared it to a child talking through a toy like a puppet. Despite this, they gave several separate lucid dream accounts where the dream was able to surprise them and develop in a way that was unexpected. Therefore, they still expressed interest in continuing lucid dream work in the future.

All of the participants in the qualitative study agreed or strongly agreed they had experienced some form of mental or physical healing or a dramatic change or transformation with depression in their life from lucid dream work. Participants felt lucid dreaming could be highly beneficial in particular for depression.

It's not a drug and it's not an addictive substance. It's a natural body process. (Monica)

The places your mind takes you are just reflections of things you think about, fears, anxieties, and alternatively good stuff as well. It's a good way to explore with no risk. (Lisa)

4. Discussion

This study explored the potential of lucid dreaming for mitigating depression, using a sequential explanatory Mixed Methods approach – a quantitative survey which was followed up by qualitative in-depth interviews. Both quantitative and qualitative data support the idea that lucid dreaming may be helpful in treating depression. A large proportion of the respondents for the quantitative survey had personal experience with depression (either being currently or previously diagnosed with depression or prescribed with antidepressants) and the majority of them perceived lucid dreaming as being helpful to them when they were feeling depressed. The findings from the qualitative study elucidate specific ways how lucid dreaming can alleviate depression.

Namely, lucid dreaming facilitates self-exploration, enabling the individual to better understand new and old emotional experiences through insightful inner dialogues with conscious and subconscious parts of the self. Lucid dreamers can recognize unintegrated and fragmented parts of the self through dream characters, environments, and other re-occurring dream themes and nightmares. These repetitive themes highlight the origins of their depression and trauma, and therefore provide the opportunity for the dreamer to rewrite depressive thoughts, patterns, and memories. Further, it promotes creativity and empowerment, by providing access to immediate pleasurable and freeing experiences that could be near impossible to achieve for a person suffering with depression whilst awake. The lucid dream environment creates a space for the dreamer to actively work on mental, emotional, and physical life problems through rehearsal. Skill enhancement, confidence, and an empowered and inspired mindset translates over to the waking state creating visible positive changes in their waking life. Finally, the spiritual and transpersonal aspects of their lucid dream practice bring a stronger connection to meditation, mindfulness, and relationship to self and other. Wisdom, insights, and mes-

sages were received whilst lucid allowing for unresolved blockages to be worked through and healing to take place. New perspectives on the individual identity are cultivated with a greater awareness, leading to a shift in the perspective on sadness and depression.

In contrast to previous research (Taitz, 2011), the present quantitative study did not find an association between lucid dreaming frequency and depression. While a study by Taitz (2011) included undergraduate students who were inexperienced lucid dreamers with lower levels of depression, the present sample consisted of more experienced lucid dreamers, spanning a broad range of ages and many of whom had experienced depression, which was due to the recruitment strategy as those with previous lucid dream and depression experience were invited to participate. The lack of the relationship suggest that lucid dreams may not be detrimental to mental health (Stumbrys, 2021), but rather the opposite: The majority of lucid dreamers did perceive positive effects of lucid dreaming on helping with depression, contributing to physical/mental healing and transformation. This is in line with a recent study by Erlacher et al. (2020), where 81.3% of lucid dreamers strongly or partly agreed that their lucid dreams contributed to their mental well-being.

The findings of the qualitative study reveal a certain process – the healing journey – that was undertaken by lucid dreamers to treat depression. All six participants in the qualitative study began their healing journeys by using lucid dreaming as a tool for self-exploration. They were able to experience emotions that were previously unmet. Dreams and our waking life emotions are highly interrelated (Gilchrist et al., 2007; Nielsen et al., 1991), therefore it is not unusual for a depressed individual to have darker dreams in the beginning of their journey as was the case for participants in this study. Participants explored new emotions and how to integrate them by interacting with conscious characters in their lucid dreams. Dreams can be considered as communication exchanges between sub-conscious and unconscious fragments of the self with the conscious self (Jung, 1960; Tholey, 1988). This was evident for some of the participants who were faced with challenges, at times presented to them by their dream characters or dream guides. If a lucid dreamer was successful in integrating denied parts of the self, transformation and healing took place.

Once participants had a better idea of where their depression and negative thought patterns were stemming from, they began to actively work on re-wiring them in the lucid dream space. Depression is strongly associated with negative thought patterns (Trick et al., 2016). Where antidepressants may act as a temporary band aid for bad feelings, they will not help participants to actively work through negative thought loops enabling them to get to and fix the root cause of their depression. All but one of the participants expressed having bad experiences with antidepressants and related medications. Therefore, rewiring negative thought patterns was an evident and extremely empowering part of their lucid dream practice. Similarly, mindfulness-based approaches focused on the development of metacognitive awareness and letting-go of ruminative thought patterns are also associated with decrease of negative automatic thinking (Frewen et al., 2008).

Continuing their healing journey, participants then began to get creative with the way they utilized the lucid dream space and started to explore the boundless potential of the lucid world built by their own mind. This is a stimulat-

ing modality for those with depression as it allows them to begin having fun and enjoying themselves again. Participants explored flying, sex, and other liberating activities (cf. Stumbrys et al., 2014). They worked with dream imagery and characters to get a better understanding of blockages happening for them in the waking state. Fruitful work can be accomplished in lucid dreams by working directly with images in order to understand the source of a problem from an altered perspective or state of consciousness (LaBerge & Rheingold, 1990). Acquiring control and creative problem-solving techniques in the lucid dream space worked as a compelling mind hack for re-writing mental programming, deprogramming the self from deep-rooted psychological assumptions about reality, and opening up participants' minds to their creative potential reflected in inspirational ideas being brought back from their lucid dreams and used for helping them at work and for their own personal hobbies such as creating art or writing poems.

Utilizing their lucid dream practice for spiritual and transpersonal exploration was heartily affirmed by all participants who divulged their experiences to create three super-ordinate spiritual and transpersonal lucid dream concepts: mindfulness & meditation; mantras, messages & magic; and healing, & transformation. Understanding lucidity, required participants to understand what it means to be awake and present. In this way, lucidity is similar to mindfulness (Stumbrys et al., 2015). Not only mindfulness and meditation are associated with the frequency of lucid dreams (Baird et al., 2019; Stumbrys et al., 2015), but also with a greater ability to exert control over the dream plot in lucid dreams (Stumbrys & Erlacher, 2017b). Several participants noted that they were able to feel an increased sense of awareness, consciousness, happiness, and felt more meditative in their waking state succeeding mindful and spiritual experiences in the lucid dream state; some stating that these experiences would linger for months at a time. Another form of effective spiritual practice was the utilization of mantras, the repeating of a word or phrase. Some participants used mantras to induce and trigger their lucid dreams, whilst others used them to focus on manifesting a particular result within the lucid dream (Johnson, 2017). Mantras allowed participants to remain aware of their goals and attain effective results such as feeling happier, more motivated, less depressed, and energized. Further, the spiritual and transpersonal aspects of dreamwork facilitated participants to redefine their identities and how they relate to the outside world; all agreeing or strongly agreeing that they experienced a form of mental or physical healing and a dramatic change or transformation with depression in their life from lucid dream work. A recent study corroborates these findings showing that both a greater dispositional mindfulness and a more spiritual attitude (i.e. greater transpersonal trust) are associated with stronger effects of lucid dreaming on mental and physical health (Erlacher et al., 2020). While lucid dreaming itself is a transpersonal experience, it can also act as a gateway to further transpersonal and mystical experiences (Stumbrys, 2018), which have also been linked with persisting positive effects on mental health (Davis et al., 2019; Griffiths et al., 2011; Taylor & Egeto-Szabo, 2017).

Lucid dreaming can be used as a therapeutic modality for transpersonal psychotherapy and coaching or as a spiritual practice to explore the nature of consciousness (Stumbrys, 2018). All participants expressed interest in lucid dream work being available as a type of coaching or therapy pro-

gram for working with depression. Studies on meditation and the neuroscience of consciousness state that many of our core and mental processes such as awareness, attention, and emotional regulation, including our capacity for happiness and compassion, should be conceptualized as trainable skills (Lutz et al., 2007). Viewing our life as a waking dream and practicing the concept of waking up in our lives is also known as lucid living (Johnson, 2017).

Finally, after identifying the healing and transformative potentials of lucid dreams, several limitations of the present research need to be noted. The findings of the qualitative are based on a relatively small sample size, although it is intrinsic to the nature of IPA, it does put a limit on the generalizability of the findings. Despite implementing a thorough bracketing process, it should be acknowledged that there was likely unconscious beliefs and expectations which affected the way interviews were conducted and the way data was interpreted and analyzed.

Participants in the qualitative study were those who are no longer using anti-depressant medications and most were in mild levels of depression currently. As the study was based on their retrospective reports, it is not known what were their levels of depression at the time when they used lucid dream treatment. However, there were many respondents in the quantitative study who strongly agreed that lucid dreaming was helping them with their mental health and working through depression; but still scored highly on the scale for more severe states of depression or were still taking anti-depressants and were therefore excluded from the qualitative section of this research. Future research should consider looking at lucid dreaming treatment for more severely depressed individuals or individuals who are still currently prescribed anti-depressants and looking for an alternative holistic treatment to try.

Since the qualitative part of this study was retrospective, it is possible that there were some confounding factors which could have also had an impact on the participants' mental health, for example, medications being administered, attending therapy or trying alternative therapeutic modalities. Total duration of depression, number of previous episodes, responses to past treatment modalities may have also played a role. Future studies should take into account these possible confounding factors. However, it should be noted that there were several participants in the qualitative study who addressed this point during their interviews and explicitly noted that it is because medications like anti-depressants, SSRI's, and traditional psychotherapeutic practices were not effective for them, that they decided to try lucid dreaming; and in their own opinion, lucid dreaming was what made the difference for them in terms of treating their depression.

Furthermore, five out of six participants in the qualitative study were lucid dreamers for whom lucid dreams occurred spontaneously rather than through deliberate induction. It would be interesting to test in future research whether lucid dreaming as a treatment for depression could be extended to depressed individuals who are not natural lucid dreamers but could go through a program that develops their ability to lucid dream and try some of the approaches that were explored in this study.

4.1. Potentials of Lucid Dreaming Treatment for Depression

According to the present findings, lucid dream treatment appears to be a feasible intervention in alleviating depression. It seems to share some similar mechanisms of action with mindfulness-based cognitive therapy and ketamine treatment for depression. In relation to the former, lucid dreaming also facilitates metacognitive awareness into noticing and rewriting depressive thought patterns, deepening meditation practice, and cultivating a more mindful attitude in both their dreams and their waking life (cf. Kuyken et al., 2016; Segal et al., 2002). In relation to the latter, lucid dreaming provides a similarly empowering altered state of consciousness marked by increased perception, uplifting mood and transformative transpersonal experiences (cf. Griffiths et al., 2021; Kolp et al., 2014). It also shares similar neural mechanisms with the other two treatment modalities, including the activation of prefrontal brain areas both in lucidity and mindfulness (Dresler et al., 2012; Filevich et al., 2015; Wheeler et al., 2017), as well as the activation of the precuneus and temporal-parietal areas in both lucidity and ketamine (Dresler et al., 2012; Vlisides et al., 2018).

The results from this study support lucid dream work being an effective treatment for mental health issues for a range of people with differing backgrounds, beliefs, and types of mild to moderate clinical depression. For a larger and more general population to be able to utilize lucid dream work for mitigating depression, a program needs to be developed. There are currently no lucid dream coaching or therapeutic programs designed specifically for treating depression. By utilizing the three superordinate themes that emerged during the data analysis process, there is potential for a 12-step program which would walk patients with depression through a healing and transformative path to recovery using lucid dream practices.

Provisional Outline for a 12-step Programme Currently Still in Development:

Step 1) Self-Exploration: Participants are instructed on how to begin using a dream journal which has space for them to highlight and identify prominent characters, environments, emotions, reoccurring themes, and other notable dream content.

Step 2) Emotionally Induced Lucidity: Participants suffering with depression will likely find that negative emotions such as stress, anxiety, anger, and sadness are heightened in their dreams. Therefore, taking a common negative emotion that appears in both their dreams and waking life, can be used to trigger lucidity. The participant will focus on one negative emotion and whenever it is felt they will consciously rank its intensity on a scale (the higher the ranking, the more likely they are to be in a dream). This allows the participant to use a negative emotion and experience for the positive opportunity for inducing lucidity and eventually to be able to lucidly work with this emotional state.

Step 3) Setting the Lucid Dream Task: The participant will work alongside the lucid dreaming coach or therapist to come up with a task that they would like to lucidly explore in connection to their emotions. A good place to start will be instructing the participant to speak with other dream characters and conscious dream characters that oftentimes represent fragmented parts of the self.

Step 4) Intermediate Induction Techniques: Participants

are taught additional lucid dreaming induction techniques (cf. Stumbrys et al., 2012) to further increase their lucid dream frequency. They are also given additional personalized reality checks to perform in connection to other regular dream signs (e.g. reoccurring characters & environments).

Step 5) Fun and Freedom: The participant works with the lucid dreaming coach or therapist to decide on something fun or freeing that they would like to experience inside the lucid dream. This could be common enjoyable experience such as flying and having sex, or it could be requesting to experience something that they haven't in a long time such as the feeling of pure happiness or relaxing on a beach.

Step 6) Problem Solving: The participant should at this stage be feeling more confident in their emotional stabilization and exploration, alongside their lucid dreaming abilities. They can at this point work alongside the lucid dream coach or therapist to go through common problems that are highlighted in their dream journal or have come up in their sessions. They will then create a plan for how the participant can creatively work on this problem from within their lucid dream.

Step 7) Re-writing Depressive Thought Patterns: The participant works with the lucid dream coach or therapist to select a bad memory or current thought process in connection to their depression that they would like to re-write. They begin this process together in the waking state creating a blueprint for the work that will take place in the lucid dream.

Step 8) Inspiration and Integration: The participant and lucid dream coach or therapist review what the participant has been working on inside their lucid dreams and look at ways to use the knowledge and insight gained to continue this work by bridging the practices into the participants waking life. For example, if the participant tried out expressing their true feelings to someone whilst lucid, they would then work on how to have these kinds of conversations in their waking life. At this stage, the participant is expected to see actual results from the work they have been doing in the lucid dream state transferring through to their waking state.

Step 9) Mindfulness and Meditation: Participants are in a better frame of mind to begin trying additional techniques that are known to be beneficial in both their lucid dreams and waking life. They are introduced to a meditation or mindfulness practice which will both benefit them in the waking state and additionally increase their lucid dream frequency. They will then be taught how to use meditation in connection to negative emotions. They will also practice meditation techniques immediately upon achieving lucidity in their dreams which will cultivate stable and lengthier lucid dreams.

Step 10) Messages: Now that the participant can experience a much more stable mindset and lengthier lucid dreams, they will enter their next lucid dream with the intention of receiving a message or insight into the crux of their depression.

Step 11) Conscious Healing: The participant can now begin working on a deeper level of energetic healing and using cross scanning meditation practices to lucidly remove where negative emotions and depression feels stuck in their body.

Step 12) Transformation and Transitions: Participant works with the lucid dream coach or therapist to review all the transformations and changes that have occurred so far. At this point the participant should have uncovered a deeper understanding surrounding their depression and the crux

of their depression. At this stage a plan can be created for how the participant can continue dreaming and living lucidly upon completing the programme.

4.2. Conclusion

This study indicates that lucid dreaming might be a feasible approach in alleviating depression and enabling healing and transformation. Lucid dream experiences can be utilized for self-exploration, creativity and empowerment, transpersonal and spiritual practices, empowering depressed individuals to redefine themselves, re-wire negative thought patterns, integrate new life skills and creative techniques into their waking lives, and enabling them to develop a better relationship with their mental health. The findings highlight lucid dreaming and its new potential as a healing and transformative transpersonal modality for mitigating depression. Utilizing a 12-step programme, like the one outlined in this study, within a clinical or therapeutic setting for depressed individuals should be explored in future research.

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