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**A Phenomenological Thematic Analysis of Dreams After a  
Near-Death Experience**

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## **Abstract**

Dreams are subjective conscious states influenced by waking emotional events. For some people on the brink of death, a subjective near-death experience (NDE) is activated potentially giving a glimpse into disembodied and altered consciousness. Interviews with 10 participants who had NDEs were conducted to record phenomenological lived experiences of dreaming. Thematic analysis was utilised to arrange reports into four global themes: ‘Dreams are Teachers’ revealed how NDEs altered attitudes and beliefs about the value of information in dreams which had practical implications for solving waking problems, creativity, and exploring who one is and why they are here. ‘Suspended Dream Time’ draws on how dreams contain memories of past lives and provide insight into the future. The subjective nature of an NDE also impacts interactions within dreams. ‘The Conscious States of Dreaming’ illustrates how participants experienced their bodies and minds when connecting with dream content and the functions this served. The subjective consciousness of an NDE also influenced notions of reality which found expression in dreams. ‘Dreams are More Memorable’ captured how dreams became more vivid and emotional since returning from the threshold of death. These are then compared with relevant findings from other studies.

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To my mother, thank you for your support. To my father, while you have been gone for years, you would have a shared interest in this topic if you were still here. Certain beliefs and values bestowed by a near-death experience were aligned with your own, and you saw it as your duty to teach these. Thank you for passing on what you knew. One of these things was an open mind on spiritual matters, something you were highly committed to.

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## **Glossary**

### **Term**

### **Definition**

**Altered State of Conscious**

Alteration in the pattern of mental functioning different from the waking state.

**Astral Dream**

The ability to detach from the physical body in a dream and travel to other subjective spaces.

**Dream**

Subjective mental imagery mainly in REM sleep.

**Hypnagogia**

Audio and visual hallucinations upon sleep transition.

**Hypnopompic**

Audio and visual hallucinations present while transitioning out of sleep.

**Integration**

The acceptance of an event into a personal history where the self becomes aligned with the experience.

**Lucid dream**

Perceptual awareness in a dream that may be complimented by degrees of volitional control.

**Near-death experience**

Subjective state of consciousness on the threshold of clinical death.

**Nightmare**

Vivid and dysphoric dreams featuring negative emotions primarily fear, and threats toward the self and others which often involve awakening.

**Out-of-body experience**

Positioning and perception outside of the physical body. Sometimes present during NDEs.

**Post-traumatic nightmare**

Nightmares that often replicate aspects of a traumatic event and are a hallmark of post-traumatic stress disorder.

**Precognitive dream**

Learning of an event in a dream that has not occurred and is not based on past information.

# **Chapter One: Introduction**

## **Myself as Researcher**

My position entering the study is one of never being close to death or experiencing any form of transcendent subjective altered consciousness, be it a near-death experience or another type of experience of an anomalous or exceptional nature. Like many others, I have some fascination with areas relating to spirituality and the supernatural, along with some belief in these subjects. My interest in psychology has equipped me with a useful tool to at least speculate what may be occurring in certain situations but this is limiting.

Before the research, I had never interacted with anyone who I knew had an NDE but was familiar with the experience through some media exposure. Scanning my memory, I recall sitting with my father while watching a program that featured NDEs which triggered him to causally remark that my grandfather whom I had never met had one during the First World War at the Battle of the Somme (my father was over 60 when I was born). After being blown up in the air my father reported that my grandfather was in a very peaceful, beautiful garden. Upon being resuscitated he bemoaned, 'Why did you bring me back'. Like many others after the war, he experienced the effects of what was then referred to as shell shock which entered his dream experience. This is one of only a few stories I heard as he did not discuss the war with my father, but it highlights the momentous nature of NDEs and the commonality of this event, and how it is often left unexplored. It is these limiting insights I bring to the thesis. I will now provide an overview of dreams and associated well-being followed by the status of NDEs as a unique conscious state.

## **The Nature of Dreams**

Dreams have held a premium status throughout the history of humanity with beliefs about dreams ranging from being portals to other realms, predictors of the future, or more recently meaningless neurological waste (Moorcroft, 2013). These nocturnal experiences

when broadly defined are recollections of lived mental activity processed offline as the body shuts out external stimuli but also exist on a continuum of depth of imagery and emotion (Schredl & Wittmann, 2005). In the early days of dream research confined to laboratories, sleep stages characterised by rapid-eye movements (REM) were regarded as the sole dream mechanism. It is now known that non-rapid-eye movements (NREM) also feature mental activity, however, most dreams are forgotten before awakenings (Schredl & Wittmann, 2005). Accumulated research estimates that the recall rate of NREM dreams upon awakening is around 43% and exceeds 80% for REM dreams as these are more vivid and emotional. These two distinct dream stages reflect the time of night but can interact (Schredl & Wittmann, 2005).

Within NREM, recent episodic content (e.g., words, meanings, facts) relating to past experiences and events appears in around two-thirds of dreams. These provide a glimpse of what happened and are seldom faithful replays. Research using dream diaries and laboratory awakenings suggests that REM dreams feature fewer episodic memories, however, gravity-defying content and metaphors are more common (Fosse et al., 2003; Payne & Nadel, 2004). This reflects sleep-dependent creative cognitive processes where recent memories connect with extensive semantic memories (Cartwright, 2010). Various purposes are potentially behind this, including adapting to multitudes of waking functions, such as threats, and social situations, learning procedures, gaining insights, and forgetting obsolete information (Domhoff, 1996; Llewellyn, 2020). Dreams have been described as emotionally charged mental experiences with certain functions providing more direct insights and have implications for health (Junuthula, 2024).

### **Dreams and Wellbeing**

The application of the World Health Organisation (WHO) well-being index has revealed an existing association between these emotions and personal well-being, with

nightmares being a predictor of health, leave from work, and suicidality (Bodizs et al., 2008; Holzinger et al., 2020). Despite this, dreams have often been overlooked regarding human development and well-being. Emotions underscoring dreaming have a therapeutic function as more aggressive dream content, misfortunes, and negative emotions increase waking distress whereas friendly interactions and positive emotions improve psychological health (Pesant & Zadra, 2006). Further reflection can be applied upon awakening.

When negative content is persistent, this further compromises sleep patterns by intruding into waking life, requiring medical treatment within a diagnostic framework (Bodizs et al., 2008). Nightmares are also markers of psychological disorders, such as post-traumatic stress disorder (PTSD), and when successfully treated can reduce general clinical symptomology. However, the impact of dreaming on health is far more contextualised.

For some, dreams have more existential leanings and encourage dreamers to confront what they had been reluctant to face, examine spiritual possibilities, and reflect on relationships past and present (Kuiken et al., 2006). For example, waking beliefs in deities and spirituality provide vast personal and interpersonal health benefits that extend into dreams, by promoting prosocial attitudes, positive mood, and healthier lifestyle decisions (Balch et al., 2024). Exploring dreams within the context of important emotional and spiritual experiences increases self-awareness, insight, resilience, and acceptance, fostering psychological and physical development.

### **Altered States of Consciousness**

Altered states of consciousness (ASCs) of which both dreaming and NDEs are included are conscious states that deviate from waking consciousness (Baruss, 2020; Revonsuo et al., 2009 ). This definition is based on a biomedical reductionist premise revolving around the mind-brain structure operating in unison and is problematic for understanding the latter of these states. While neurological correlates are relevant for

explaining near-death experiences, this event challenges current insights into localised consciousness and physiological interpretations as this subjective state contains mystical consciousness involving higher mental activity with impaired neurological functioning (Greyson, 2007b). Unfortunately, while NDEs are considered anomalous they have therefore been conceived as neurocognitive misrepresentations of reality (hallucinations) with ensuing psychological problems becoming aligned with mental disorders through inadequate diagnostic frameworks (Greyson, 2007b).

Near-death experiences are better reframed within a post-materialist non-local paradigm beyond time and space with the brain being a filter. A materialist response to this non-local position is that at the threshold of death, the brain continues to show activity below the isoelectric electroencephalogram (EEG) (Radin, 2014). However, this ignores factors like how in around one in four instances (possibly higher) where NDEs are triggered, information like conversations from vantage points outside the body has been later verified (Radin, 2014; Van Lommel et al., 2001). These out-of-body experiences (OBEs) may be aligned with autoscopic hallucinations, despite certain differences between the two. The subjective near-death state also contains more diverse features including deceased relatives (Kruusen, 2024). While framing NDEs as hallucinations can be misleading, the event is paradoxical through being disruptive, requiring reconciliation with prior notions of reality throughout interpersonal settings (Facco et al., 2015).

### **The Near-Death Experience: An Overview**

The near-death experience is a subjectively deep state of hyper-awareness observed at the threshold of death which through advancements in medical and media technologies has received recent academic interest (Facco et al., 2015; Noyes et al., 2009). This experience by the 1970s received its name from Raymond Moody who recorded the indescribable, usually positive affectual, visual, transcendental, and paranormal aspects during this time (Greyson,

1983b; Moody, 1975). While commonly shared elements or core features have since been designated, NDEs are highly personal featuring characteristics that resonate with the phenomenological self, therefore no two NDEs are the same (Moody, 1975; Thonnard et al., 2013; Wilde & Murray, 2009).

Considerable debate exists regarding the frequency of NDEs with conservative estimates placed at around 12-18% of people after a brush with death, and an overall frequency ranging from as little as 0.1% to 15% depending on the population and type of NDE whether positive or negative (Greyson, 2007b, 2013; Melloul & Kinnunen, 2023). True occurrence is unknown as biomedical agencies do not preserve records or possess refined interventions, thereby discouraging disclosure (Schroter-Kunhardt, 1993).

Most research in this field is conducted in the United States and Western Europe. However, New Zealand studies are growing and often mirror overseas findings with some variation, such as from Māori who have been found to experience deeper and more frequent NDEs compared to Pakeha possibly owing to more confirming spiritual attitudes (Tassell-Matamua & Murray, 2014). Known triggers of NDEs are vast and estimates range from 3% for brain injury survivors and between 6% to 18% during cardiac arrest and when considering biomedical advancements, numbers may exceed one in three cases (Greyson, 2006; Hou et al., 2013; Kovoov et al., 2024; Van Lommel et al., 2001).

Subjectively, this event may be unsurpassable and is encoded deeper than memories of other important life events, such as flashbulb memories, making NDEs the most self-defining experience (Cassol et al., 2020; Cassol et al., 2019). Compelling aftereffects follow this event, with recent findings suggesting consequences regarding attitudes, expressions, and emotions related to dreaming.

Notwithstanding valuable, largely quantitative insights regarding the aftereffects of NDEs the meaningful contextualised lived experiences of dreaming after this event remain

poorly understood. Therefore, this phenomenological study offers a valuable exploration of substantiated cases into multifaceted dream experiences from a sample of near-death experiencers (NDErs) who discuss this event. This study, therefore, explores how beliefs surrounding dreams and experiences of dreaming change in various ways after an NDE. The thesis is a qualitative aspect of a quantitative study regarding the impact an NDE and trauma had on dream recall, creativity, problem-solving, imagery, OBEs, lucid dreaming, and nightmares (Lindsay et al., 2024).

### **Thesis Outline**

**Chapter Two** explores the current state and key findings of relevant literature, methodology, and theories regarding dreams and NDEs. **Chapter Three** examines the methodological, theoretical, epistemological, and ontological principles guiding the study. The study, which focuses on subjective lived experiences of dreaming, is informed by a phenomenological perspective. **Chapter Four** discusses the appropriate methods utilised in the study to capture lived experiences of the impact of an NDE on dreaming. **Chapter Five** provides the thematic analysis featuring central aspects of reported dreaming following an NDE by the sample. Four superordinate themes are presented, 'Dreams are teachers', 'Suspended dream time', 'The conscious states of dreaming', and 'Dreams are more memorable'. **Chapter Six** summarises the key findings of the thematic analysis concerning the major study and other relevant literature. The thesis will conclude with future recommendations and implications of the study.

## **Chapter Two: Literature Review**

### **Literature Review Introduction**

The literature review will begin with a brief historical overview of how dreams were conceptualised until the discovery of REM in 1953. These eventually produced studies into how dreams consolidate important biographical memories and downregulate emotions throughout the night. The literature review will then outline the aetiology of nightmares and how these in their most extreme form predict PTSD. As a study that explores diverse dream experiences, it is also necessary to include studies of hypnagogic and hypnopompic states, lucid dreaming, and the marginalised area of precognitive dreaming. An overview of NDEs is then discussed followed by known aftereffects common after this event. The literature review then covers findings into the outcome of NDEs on sleep and dreaming.

### **Dreams Throughout History**

Throughout the ages, dreams have been regarded with fascination, esteemed for important information, and were believed to transfer people between waking, sleeping, and spiritual realms (Hughes, 2000). Most primal and ancient societies such as the Mesopotamians, Egyptians, and Romans considered dreams as oracles from spirits and the gods regarding the future. The Torah and the Bible also reference dreams as divine messages. In ancient Greece, Aristotle argued that dreams cautioned about bodily conditions and illnesses, a finding that has now been verified (Segev, 2012). The reverence accorded to dreams meant they were incorporated within communal activities including religion, government, and military institutions with their interpretation being the specialisation of tribal authorities, such as elders, priests, seers, and shamans (Hughes, 2000).

While dreams can contain cross-cultural similarities (i.e., people, more negative emotions, misfortunes) there remains striking cross-cultural variation regarding dream beliefs, preservation, and interpretation (Moorcroft, 2013). Indigenous ways of knowing view

dreams as revelations from deceased relatives and ancestors in the spirit world. Dreams act as sacred vessels of communication between the conscious realm and some arrive at life-defining moments or times of great need inspiring transformative action (Shawanda & Manitowabi, 2023). Contrasted with Indigenous perspectives, scientific and societal advancements throughout the West have depleted the spiritual significance of dreams as in this regard they are seldom taken seriously (Phillips & Pargament, 2002; Weiten, 2013).

Early proto-scientific theories were speculative rather than based on the collection of dream reports. By the threshold of the 20<sup>th</sup> century, Sigmund Freud argued that dreams possessed unconscious symbolic meanings and day residue that could be understood through psychoanalysis (Hobson, 2002). Dreams offered an outlet for repressed waking desires of a “primal nature” referred to as “wish fulfilment” that threatened the conscious ego and social decorum (Moorcroft, 2013). However, limited advancements in neurological sciences hindered Freud’s insights and resulted in later revisions. Carl Jung also contributed many ideas to the function of dreams related to their compensatory nature for waking life through the collective unconscious believing dreams contain culturally shared archetypal symbols (Srivastava, 2024). However, contrary to the dream’s hidden meaning, information is provided directly through the dream acting as a bridge between the unconscious and conscious realms (Zhu, 2013).

In 1953s, pivotal momentum was triggered in Western dream science with the discovery that nightly sleep features 90-minute periods of REM and its association with dreaming (Aserinsky & Kleitman, 1953; Dement & Kleitman, 1957). REM sleep is paradoxical as it is characterised phasic activity of eye muscles and high-frequency EEG patterns resembling the waking state. REM alternates with three states within a sleep cycle of NREM, which is made up of stages one, two, and three, (N1, N2, and N3), with the last of these, slow-wave sleep (SWS), being the deepest (Blagrove & Lockheart, 2023). This helps

explain variations in characteristics of dreams in different sleep stages as produced by cortical activity, blockage of external sensory input, and neuromodulation (Schredl & Wittmann, 2005). The discovery of REM and neurological correlates generated renewed interest in laboratory studies, further uncovering the neuroscientific and cognitive basis of dreaming.

Insights into neurological dream mechanisms soon led to the activation-synthesis model (Hobson & McCarley, 1977). This hypothesis argues that the brainstem generates REM dreams in the pons region of the brainstem which activates the vision-associated geniculate that then causes REM resulting in the occipital lobe (the brain's visual area) and areas of the cortex to activate. This pontine-geniculate occipital (POG) based activation of memories and emotions is then given coherence or synthesis in the frontal lobes. Dreams are perceived as meaningless delirium, supporting the premise that dreams have little meaning (Zadra & Stickgold, 2021). However, dreams are not the sole domain of REM, and many aspects of dreams are like waking. The concentration of 80% of SWS in the first half of the night (early sleep) while the second half of the night (late sleep) contains twice as much REM likely contributes to selective memory consolidation (Payne & Nadel, 2004).

### **Memory Consolidation, Creativity, and Problem Solving**

By the 21<sup>st</sup> century, studies suggested a role for NREM and REM sleep in reflecting sleep-dependent memory network reactivation, replay, and consolidation by featuring processes unrelated to waking (Wamsley & Stickgold, 2019). Plihal and Born (1997) explored declarative recall of paired associated lists and the performance of a mirror tracing task with a small sample of 20 participants. Compared with three hours of waking, enhanced recall of paired associated lists was stronger after three hours of early sleep containing five times more SWS than late REM-rich sleep. However, three hours of late-night REM-dominated sleep enhanced mirror task performance (Plihal & Born, 1997). This implies that

SWS is associated with enhanced declarative learning while REM improves procedural task performance.

Sleep is an optimal state for memory stabilisation as competing experiences are absent. Ellenbogen et al. (2006) explored the role of SWS in declarative recall involving learning an associated word task followed by a 12-hour retention interval. The sample of 60 was then assigned to either a wake or sleep condition, followed by the immediate learning of another word task 12 minutes before being tested. Introducing associated interference diminished recall of initial word pairs by 58% for the wake group compared to the sleep group suggesting sleep makes memories more robust (Ellenbogen et al., 2006). However, memory consolidation goes beyond strengthening declarative and procedural memories as new memories change within existing semantic memory networks (Wamsley et al., 2010).

A memory triage model based on accumulated studies is proposed by Stickgold and Walker (2013) where novel experiences are incorporated along several neural pathways within existing memory networks establishing cognitive flexibility for multiple memory functions. This includes continuously updating general knowledge based on overlapping regularities or gist of experiences. Connections between a stream of memories that make up cognitive schemas allow people to reconstruct important past events which is valuable for prescribing meaning to current experiences like changes to dreaming (Glaskin, 2015). All stages of sleep contribute to processing and consolidating memories for flexible cognitive reasoning. Through the systems consolidation model, Diekelmann and Born (2010) argue that SWS is central for generalising new experiences by connecting new and old memories, then strengthened during REM dreams.

However, REM may play a more prominent role in these memory connections as more distant connections have been observed within some studies. Walker et al. (2002) tested a sample of 16 participants with a cognitive anagram word task following NREM and REM

awakenings across 10 hours. A 32% advantage was significantly reported in the number of anagrams solved in REM awakenings compared to NREM indicating that REM is shaped by a distinctive neurophysiological profile based on plasticity and excitability that enhances weaker memory associations and flexible reasoning required for insights and creativity (Walker et al., 2002). While the small sample size meant the study was underpowered, limiting the study's validity. SWS is still valuable, as emotionally salient memories recorded throughout the day via salience tags are assessed for novelty at this time and stored during REM (Stickgold & Walker, 2013). This cognitive flexibility is opposite to crystalline, logical, and linear cognitive styles synonymous with waking. When preoccupied with waking problems dreams promote connections from non-waking angles; increasing the chances of novel insights from important events like NDEs (Hartmann, 1998; Walker et al., 2002).

This is supported by considerable evidence that dreams are a continuation of waking preoccupations and events of a conscious and suppressed nature. For instance, Schredl and Hofmann (2003) analysed the dream diaries of 133 participants who completed the waking activities questionnaire over two weeks, finding that the most reported dream activities were talking to friends, driving, and playing video games suggesting dreams reflect emotional investment. While considerable literature supports this continuity hypothesis, it is broad. Dream diaries used in this study while convenient meant only some dreams were recorded usually in the morning as discipline is require (Schredl & Hofmann, 2003).

Many studies into offline memory consolidation are sleep-related and participants cannot be assigned to dream and no dream groups as dreams are not observable when they happen (Malinowski & Horton, 2015). Less is known whether dreaming specifically of a subject enhances problem-solving and insight. In a replicated study, Wamsley et al. (2010) tested 99 participants to measure the direct effects of dreams on problem-solving by exploring if dreaming about a virtual maze task during NREM improved performance

compared to thinking about the task after its completion. Participants were trained on the virtual navigation task and retested 5 hours later with improved performance significantly associated with dreaming of the task after a 2-hour nap but not for the waking thinking group. However, only four participants out of 50 in the dream group referenced the task in dreams meaning the sample was small, and dreaming of the task was also associated with poor pre-sleep task performance potentially making emotional preoccupation (embarrassment) a spurious factor (Blagrove & Lockheart, 2023).

Early studies supported a preference for the consolidation of negative memories. For example, Wagner et al. (2001) found that retention of negative emotional texts was significantly enhanced compared to neutral texts following three hours of sleep but only for REM sleep suggesting that REM is responsible for processing emotions. However, positive biographical experiences like most NDEs are also integrated. More recently, Reid et al. (2022) compared sleep-dependent memory for positive, negative, and neutral short stories and images by presenting these to 61 participants and testing them after a 2-hour nap or a 2-hour wake interval with both positive and negative story tasks significantly recalled compared to the wake group. Negative memories may be more processed for adaptive reasons.

### **Emotional Regulation**

The emotions in REM dreams triggering fast, intuitive, and associative processes help resolve waking stressors while preserving reactive cognitive frameworks (Llewellyn, 2020). The mood regulatory function of dreaming proposed by Kramer (1991) argues that during the night emotions are contained by an emotional surge activated in dreams that gradually remove negative affect within successive REM periods. This containment of the affective surge decreases affect intensity and variation as dreams unfold in a progressive-sequential form of emotional desensitization often beginning negatively in early night NREM-rich

dreams but reflecting more positive imagery by late-REM dreams (Nielsen & Lara-Carrasco, 2007).

Some studies support this progressive dream sequence. For example, Nielsen et al. (1991) utilised dream diaries and external ratings of waking emotions with a small sample of 20 participants who recorded their dreams and waking life events and associated these with incidence and intensity on a lexicon of 22 emotional descriptors they experienced in these events. While dream emotions were often aligned with waking emotions, feelings of fear were found to be higher than the frequency of positive emotions, occurring in 68% of dreams, and were higher in dreams than in waking events. This higher frequency of fear supports an adaptive function as preparing for future events of a similar threatening nature (Nielsen et al., 1991). Mallett et al. (2022) assessed dream mood and content collected from home dream diaries recording that subjective ratings of dreams and immediate waking mood were significantly related to corresponding dream imagery. Word categories regarding personal concerns referencing negative themes such as death and anxiety predicted a worse morning mood when compared with dreams featuring positive words which were associated with enhanced morning mood even when pre-sleep emotions were negative (Mallett et al., 2022). However, these studies fail to consider the long-lasting emotional impact of dreams and how spiritual dreams have meaning for people's lives (Kuiken et al., 2006).

Another model is the cognitive level affect network dysfunction model (AND) proposed by Nielsen and Levin (2007) who argue that memories are reactivated and recombined into a safer narrative that deregulates fear emotions during REM. Scenarios may include negative characters presented in more helpful situations. The new virtual narratives or simulations also produce new fear-extinction memories that may eventually through consolidation superimpose original memories for the future (Nielsen & Levin, 2007).

Emotional regulation from dreams extends long-term to assist dreamers with confronting bereavement, can be realistic, and may persist for years as themes are time-orientated to reflect stages of grief. Black et al. (2021) explored the dreams of 216 bereaved participants who provided dream reports of the deceased that were content analysed along with measures of grief to understand how grief influences dream content. Positive interactions correlated with comfort during and after the dream and increased faith in an afterlife. Post-dream emotional regulation was enhanced the most when the deceased provided comforting words. This study found that these dreams were reported as helping regulate emotions, process trauma, and maintain a continuing bond between the deceased and the living (Black et al., 2021).

A progression of pictorial metaphors contextualising central emotions can be visible over time (Hartmann, 2010a). This occurs as new memories are weaved in with distant but related memories and trigger a cycle of metaphors or central imagery such as natural disasters signifying the primary waking emotions until a waking issue is resolved (Hartmann, 2010b). Further reflection and discussion of central imagery are therapeutic (Hartmann, 1999). Metaphors are generally difficult to recall from most dreams with nightmares being the clearest expression of this process (Hartmann, 1999).

## **Nightmares**

Nightmares are typecast as dysphoric REM dreams involving perceptions of threats to survival, security, and physical integrity to the self and others and can be associated with awakenings (Brekke et al., 2023). Nightmares can surface after stress and trauma or may be idiopathic with no clear origin. It is estimated that 2-6% of the general population experience nightmares regularly. Rek et al. (2017) found in 846 members of the general population who completed an online survey that nightmare occurrence and severity were associated with hallucinatory experiences, depersonalization, paranoia, worry, and long sleep duration.

However, the authors used a cross-sectional design that limits the generalisability of these results and lacks insight into the personal nature of these experiences (Rek et al., 2017).

Some studies have recorded common themes associated with nightmares. For example, Robert and Zadra (2014) compared 253 nightmares and 431 bad dreams from 331 participants. The most frequent nightmare theme was physical aggression followed by failure, death, being chased, evil forces, and unfortunate endings as opposed to interpersonal conflicts which were more common in bad dreams. Fear was the most common emotion in nightmares along with anger, sadness, and frustration. The study was correlational meaning causation cannot be inferred with certainty. Schredl and Goritz (2018) explored nightmare themes in an online study of 1216 nightmares in a population-based sample of 2879 participants revealing that nightmares cover a broad range of topics such as being chased, health-related concerns, accidents, and death or injury of a known person. While studies are absent, nightmares and appraisals may be influenced by NDEs.

This proposition is supported by the interaction of state and personality factors in determining who has nightmares. A central aspect of the variation of nightmares proposed by Levin and Nielsen (2007) is affect load- a cross-state continuity principle suggesting that emotional negativity from taxing life events and major concerns inhibit regulation functions, and affect distress- a dispositional trait factor that heightens distress, negative affect, and extreme reactions. For example, thin boundaries can be associated with dream vividness, detail, and emotions with the Boundary Questionnaire suggesting this trait represents higher sensitivity, imagination, and difficulty distinguishing between conscious states (Hartmann et al., 1998). Schredl (2003) compared trait factors (neuroticism, thin boundaries, absorption) and state factors in a non-clinical sample of 444 participants revealing that 12% reported nightmares and neuroticism was the most pronounced trait factor. However, the state factor of current waking stress was more relevant for variance in nightmare frequency suggesting that

nightmares often reflect waking continuity regarding significant events, experiences, and preoccupations (Schredl, 2003). This, along with coping style, and appraisal appears to impact nightmare frequency and onset as nightmares do not develop for everyone or in the same way (Nielsen & Zadra, 2005).

An evolutionary function of nightmares has been proposed suggesting nightmares simulate by offering perception, training, and avoidance of waking threats (Revonsuo, 2000). This threat simulation theory (TST) argues that an increase in diverse threat simulations follows when threats are present. Mathes et al. (2019) investigated the variation in the occurrence and quality of threatening events of 108 participants, comparing idiopathic nightmares with non-nightmare dreams. Most of the 306 dreams assessed in this study contained at least one threat, with an average of 0.89 of threats overall, with nightmares containing no more threats than non-nightmares, suggesting that dreams may have a general adaptive purpose. The dream self was usually the target of the threat, most reactions (119, 43%) were realistic for waking situations, and in nearly half the cases (129, 47%) the dream self-reacted to the threat (Mathes et al., 2019). However, TST does little to explain the replication of waking material, unrealistic threats, and the failure to flee threats in dreams after traumatic events like accidents that trigger NDEs.

### **Post-Traumatic Nightmares**

Trauma responses may include post-traumatic nightmares (PTNMs) signifying poorer emotional adaption (Mader et al., 2023). While most studies focus on veterans continuously exposed to trauma, what is common is that the shock of trauma fails to find comparable expression within current emotional memory systems with diminished control characteristic in dream settings during REM and at times, N1 and N2 sleep (Mader et al., 2023). In 50% of cases, the content of PTNMs replays the associated affective and visual aspects of trauma with the remaining symbolic or blending trauma-related and new material (Hartmann, 1998).

Controversy surrounds the exact amount of replication as recent trauma that triggers NDEs may be associated with memories of unresolved trauma presenting metaphors often located in childhood as emotions function as a bridge between these distant memories (Hartmann, 1998).

Higher replication of trauma is, however, a predictor of PTSD and is associated with the onset of other psychopathological processes (Phelps et al., 2008). Prospective studies show the influence of nightmares on post-trauma adaptation. Davis et al. (2007) collected data from 94 recent trauma-exposed participants who were seeking treatment and found that 50% reported trauma-similar nightmares, 29.5% experienced nightmares not related to the trauma, and 20.5% had replicative nightmares. The degree of waking distress, meaning emotional management of nightmares was associated with the similarity of nightmares to the trauma. Replicative nightmares were associated with greater depression, and overall PTSD symptom frequency and severity (Davis et al., 2007). This suggests that the severity of waking pathology and maladaptive beliefs about the trauma may influence the type of PTNM. Pigeon et al. (2021) explored the relationship between dream content and the onset of PTSD using Hall and Van de Castle's content analysis compared a small sample of 20 trauma patients with 27 non-trauma participants. The nightmares of trauma patients contained significantly more physical aggression, bodily misfortune, and self-negativity. Patients who developed PTSD had dreams that were significantly more negatively toned than those who recovered from their trauma suggesting that dreams were related to how new memories integrate with existing memories and certain subjective aspects mitigating this process (Pigeon et al., 2021).

Reduced perceptual processing within dreams is likely implicated in PTNMs. Paquet et al. (2020) assessed verbal reports of PTNMs from 53 participants seeking treatment shortly after trauma followed by using the Linguistic Inventory and Word Count a quantitative method that allows the study of affective and cognitive processes within texts. These

nightmares when compared to healthy dreams contained more words related to affective processes, and the negative emotions of anger, sadness, and anxiety indicating greater dysphoria. Lower levels of language use in dreams represent decreased logical thinking and more narrative thinking and were significantly related to higher severity of PTSD symptoms, depression symptoms, and nightmare frequency at the time of transcription (Paquet et al., 2020). The study was underpowered and preliminary, increasing the likelihood of confounding variables, however, it was concluded that cognitive language reflects active processes and memory integration, with nightmares declining when trauma is more effectively processed. Some dream states are more subtle and may or may not be realistic but contain positive and negative content such as voices and entities.

### **Hypnagogic and Hypnopompic States**

Hypnagogia refers to the phenomena present upon transitioning from wakefulness to sleep whereas hypnopompic is a similar state active upon awakening (Ghibellini & Meier, 2023). A biomedical perspective can frame these as hallucinatory as they combine waking awareness with REM processes, however, cross-cultural spiritual interpretations are also present and may increase with NDEs (D'Agostino & Limosani, 2016; Hufford, 2005; Lindsay et al., 2024). An international survey study exploring hallucinations (visual, auditory) and OBEs among 13057 people found that 3204 reports of hypnagogic hallucinations were recorded while 862 (27%) participants had hypnopompic experiences. Half of the reports were not related to mental illness suggesting these are common among healthy individuals (Ohayon, 2000).

Hypnagogic and hypnopompic states have been compared to waking states. When exploring audio features, Jones et al. (2010) found in a sample of 325 healthy participants that audio voices were usually direct, one-off voices, or with recurrent voices, rarely gave commands, or had interactive conversations. These voices were unclear in 35% of cases and

in 43% of reports only contained the odd word that was mostly recognisable. Regarding emotional tone, this was often neutral (38%) but also positive (18%), and negative (10%) in some cases. The same number of people responded to these voices that did not, and engaged conversations with perceived individuals were rare. The use of self-reports may hinder reliability and validity and combined with the hypnagogic state can make it difficult to report phenomenological features (Jones et al., 2010). There is not much known about the impact NDEs have on hypnagogic and hypnopompic states, although some insights exist into sleep paralysis.

Transitional states can be negative through sleep paralysis featuring malevolent visual imagery and presences, and physiological restrictions related to breathing and moving. In a qualitative analysis over three years based on surveys of 2715 students who had sleep paralysis Cheyne (2001) recorded neutral or a felt presence in less than a quarter of cases. There was a sense of the entity being close by and in half of the reports, participants felt they were being watched. Visual hallucinations were variable ranging from vivid and detailed although in a minority of cases were vague and unrefined. The most concrete threatening figures were stereotypical, such as succubus. Tactile hallucinations commonly involved intruders and being grabbed by the wrists and hands. Human voices were the most common auditory feature and if comprehensible are direct like the sleeper's name and commands. The REM mechanism may confabulate imagery with self-inflicted or externally imposed injuries (Cheyne, 2001).

Sleep-related OBEs are common in hypnagogic and hypnopompic states. These allow subjective observing from an elevated and extracorporeal perspective, are mostly spontaneous, and are experienced by 5-10% of the healthy population (Campillo et al., 2024). The quantification of OBEs is limited due to their spontaneous nature, however, Lindsay et al. (2024) found these increased after NDEs. Raduga et al. (2020) conducted a live survey

into how these phenomena are related with a large sample of 974 participants recording large correlations with 88% stating they had experienced at least one OBE, lucid dream, or sleep paralysis, and that at least one of these was common for 43% of the sample. Experiencing one of these REM states increases the likelihood of experiencing other states (Raduga et al., 2020). For example, Lindsay et al. (2024) reported more OBEs with lucid dreaming following NDEs.

### **Lucid Dreams**

Lucid dreaming refers to awareness within the dream and feelings of control (Stumbrys, 2018). A meta-analysis involving 34 studies over 50 years suggests that it is common as 55% of people have had at least one lucid dream; however, frequent lucid dreaming is less common as 23% of people report lucid dreams at least once a month, and 5% once a week (Saunders et al., 2016). Lucid dreams often occur spontaneously but this is rare and various induction techniques can cultivate dream lucidity. Schredl et al. (2020) from a small sample of 50 participants found that the wake-and-back-to-bed technique in a home setting increased lucid dreams from 6 to 18% and declined without practice. Potentially owing to conscious awareness, interest in lucid dreaming can increase when people become more spiritual in life such as following NDEs, however, this type of dream is not always viewed as spiritual (Luth et al., 2018; Stumbrys, 2021).

Lucid dreaming offers opportunities to defy rational boundaries. In an online survey involving 684 participants, half of whom were frequent lucid dreamers, Stumbrys et al. (2014) recorded that flying was the most popular activity followed by communicating with dream characters, spiritual experiences, and performing aggressive actions. It was common for participants to fail to execute their intentions in lucid dreams due to awakening or obstacles in the dream environment (Stumbrys et al., 2014). Self-reports of dreams through online surveys can have problems as dreaming is amnesic enhancing inaccurate reports and

sampling bias, although they are generally reliable. Online surveys also mean that questions cannot be asked when participants are uncertain.

Through awareness and control in a free environment, lucid dreams may assist with creative insights, nightmare reduction, and personal growth (Stumbrys, 2018). In an online study involving 528 respondents, Stumbrys and Erlacher (2016) recorded that doing the impossible was the most popular application and was reported by over 40% of lucid dreamers, with other common activities including solving waking problems. All applications of lucid dreams were reported to positively impact waking mood. A selection bias was present as most of the sample (73%) were lucid dreamers and half of these were frequent lucid dreamers which is higher than the general population but similar to most other online surveys (Stumbrys & Erlacher, 2016).

Lucid dreaming can be associated with improving mental health. These were reported in a within-subject design comparing the lucid and non-lucid dreams of 100 participants (Schredl et al., 2022). It was found that lucid dreams contained more positive emotions, fewer problems, and less verbal aggression and death themes supporting its utility for combating nightmares. Erlacher et al. (2020) conducted a questionnaire study with 386 participants with 90% reporting waking mental and physical health benefits and was related to lucid dream frequency, mindfulness, and spirituality. Like Schredl et al. (2022) lucid dreaming had mental health benefits as dreamers could alter negative dream content (Erlacher et al., 2020).

Results have been less promising when lucid dreams are applied after traumatic events. Holzinger et al. (2020) explored how effective lucid dream therapy, which aims to restructure the storylines of nightmares, was for treating nightmares experienced by 31 individuals with PTSD during six 60-minute therapy group sessions. Overall, there was no significant reduction in nightmares or improvements in life as recorded by the Quality-of-Life Scale or improved daily functioning. However, anxiety and depression decreased over the six

weeks suggesting this may reduce nightmares for people with certain psychological disorders (Holzinger et al., 2020). This study had a small sample and a high drop-out rate. Lucid dreams like NDEs can be related to disembodied consciousness, however, lucid dreams are now viewed as less supernatural than other forms of dreaming like precognitive dreams.

### **Precognitive Dreams**

Studies into precognitive dreaming emerged in the 1960s under broader studies involving extrasensory perception such as telepathy and clairvoyance (Sherwood et al., 2002). Precognitive dreams are those considered to predict future events in a manner impossible to infer from present information and dreaming as an ASC may be the most appropriate time for this ability with 33-68% of sensory modes being inactive (Sherwood et al., 2002). The highly controlled experiments Maimonides Dream ESP studies included 2 precognitive dream studies with a renowned psychic and judges, showing impressive effect sizes ranging between  $r = 0.73$  and  $r = 0.65$  suggesting precognition was likely present (Ullman et al., 1973).

Due to the expense of maintaining sleep laboratories exacerbated by the stigma associated with this area controlled studies have since been minimal (Sherwood & Roe, 2003). Nevertheless, the findings are still interesting with between 18% and 38% of people based on large samples reporting at least one precognitive dream (Schredl, 2009). In a two-week study, Schredl (2009) explored the frequency of precognitive dreaming and its relationship with personality traits, creativity, dream recall, attitudes toward dreaming, and psychopathology within a student sample. Most of the sample (60%) of ( $N = 444$ ) reported at least one precognitive dream, 26% had at least one precognitive dream a year, 3.3% experienced them at least once a month, and 0.9% once a week, with precognitive dreams making up 2% of all dreams. Significant relationships were found between precognitive dreaming and dream recall, thin boundaries, and absorption (i.e., exclusively focusing on a

single object). The relationship of personality traits with belief and recognition of dreams as potentially precognitive is an area of contention implying certain traits relate to precognitive expression. Absorption was associated with dissociation and immersion in fantasy and may make someone more inclined to interpret dreams as precognitive (Schredl, 2009).

The contents of precognitive dreams have been explored. Parra (2018) conducted a questionnaire study with 234 participants and compared these to controls. In total, 48% of participants had precognitive dreams, with 4.3% having them frequently. These were reported as trivial in 15.4% compared to serious events such as death. For 18.4% of reports, types of symbolism required careful interpretation; 22.7% stated that the dreams were moderately to perfectly vivid; and 27.8% reported to be moderately to highly emotional. As with Schredl (2009), participants who reported precognitive dreams also scored significantly higher on measures of absorption compared to controls (Parra, 2018).

To promote greater academic interest in precognitive dreaming in an economic and controlled manner, home-dream designs may be promising. Vernon et al. (2024) created a home-dream design to measure precognitive effects with 101 participants who upon awakening in a relaxed home setting, could record their dreams and submit these via an online link to potential targets. Participants were tested to see if they could dream about it and rated future images as more like their dreams than decoy images. After dreaming, they were randomly shown four images and rated these from 1 to 100 regarding dream similarity. Results for the target images were significantly higher than for decoys and contrary to studies like (Schredl, 2009) no significant relationship was found with personality dimensions such as thin boundaries, sensory processing sensitivity, and anomalous experience and belief. As the study was conducted online and participants identified targets after completing ratings there was a likely precognitive effect (Vernon et al., 2024). Given that genuine effect was recorded, understanding what may enhance dream precognition is still absent, with the

current study potentially exploring an event that may influence this type of dreaming among others.

### **Summary of Dream Studies**

This overview of the science of dreams since the discovery of REM sleep covers the state of methodological and theoretical findings on the influence of waking experiences, sleeping cognition, and physiology regarding the functions of dreaming. Contemporary psychological studies into dreaming argue that dreams, both forgotten and remembered, serve mostly non-random adaptive functions supporting creative problem-solving, personal insight emotional regulation, enhanced embodied awareness, enjoyment, and personal industry, and may foretell the future. However, despite these valuable insights, dreams are still cloaked in mystery, and there is a lot more to be discovered about why people dream, the experiences that shape dreaming, and dreaming's relationship with waking consciousness. One event with enormous emotional depth is the near-death experience. While studies have considered areas such as PTSD and trauma, NDEs in this regard are unique.

### **Near-Death Experiences**

A near-death experience is a profound subjective event that can be triggered when a person is close to death or under considerable distress (Greyson, 2013). What is now called a near-death experience found expression in folklore, religious beliefs, philosophy, and literature such as Plato's Republic (Fritz et al., 2024). Before enhanced academic interest from the 1970s, NDEs could be misaligned with other conditions such as depersonalization, and disassociation (Martial et al., 2017). Moody (1975), who devised the term, established 15 defining features of NDEs the most common being a sense of peace, joy, unconditional love, ecstasy, cosmic unity, OBEs, seeing a bright light, suspended time, and existing in the threshold of another dimension (Fritz et al., 2024; Moody, 1975). Other core aspects include meeting spiritual or religious beings, or deceased relatives, life review, seeing a tunnel, the

ineffability of the experience, freedom from suffering, hearing beautiful music, a dark atmosphere, vivid awareness, and a voluntary or involuntary return (Lindley et al., 1981; Moody, 1975).

This transcendental and profoundly life-changing event can be reported after all life-threatening situations on the verge of death including surgical procedures, asphyxia, combat, childbirth, accidents, burns, drowning, and attempted suicide (Van Lommel, 2006). At least 20 explanations for NDEs have been proposed including altered blood gases, cerebral anoxia, hypoxia, hypercapnia, altered retina function, fantasy proneness, and escapism as a coping mechanism as the brain attempts to ease one into death (Greyson, 2007b; Long, 2021; Stefansson et al., 2006). These explanations fail to consider all features, evidence, and universal consistencies regarding NDEs.

The NDE population does not differ from the general population regarding demographics or markers of health, such as PTSD, intelligence, disassociation, and personality traits, such as neuroticism (Greyson, 2000). Children have just as vivid and intense NDEs as adults with the memory of the event remaining intact throughout their lifespan, although due to their age, experience fewer life reviews and deceased relatives and more living relatives (Bush, 1991; Greyson, 2000, 2006; Turnball, 2024). Other transcendental experiences not occurring on the brink of death do not always have the same phenomenological features or aftereffects found with NDEs (Athappilly et al., 2006).

Cross-cultural diversity in some studies is controversial, as culture and personality may have interpretive functions. The expectancy hypothesis was supported by Pasricha and Stevenson (1986) with a small Indian sample of 16, who had met with the Hindu God Yama, the Hindu god of death, and Yamadutas (messengers), who returned them to this world as it was not their time. However, globally shared fundamental core features are the norm throughout studies.

Most studies are quantitative or include qualitative aspects while featuring insufficient sample sizes. Self-reports are often utilised throughout these studies which may increase the likelihood of participant bias. The standard measure used within most of these studies to assess the depth of NDEs has been the Near Death Experience Scale (NDES) (Greyson, 1983a). This quantitative scale was devised from 80 common characteristics of an NDE and features 16 items consisting of affectual, cognitive, transcendental, and paranormal dimensions.

While many NDE studies have featured in peer-reviewed scholarly journals throughout the past 50 years, qualitative studies are largely absent (West, 1998). This is detrimental as serious clinical implications are found from this event and require suitable responses regarding the subjective and specific meanings prescribed to this experience (Morris & Knafl, 2003). Within 266 publications between 1977 and 2013 addressing NDEs, opinion articles were the most prevalent, and longitudinal and cross-sectional studies had greatly increased since 2000. Between 2000 and 2013 there was little original data in this field (Sleutjes et al., 2014). However, in recent years this has increased with neuroscientific studies exploring this issue more (Cassol et al., 2020; Martial et al., 2017).

Scholarship has revealed the complexities of integrating the multi-level outcomes after near-death experiences. These studies into aftereffects began in the late 1980s after core NDE aspects were established showing the long-term impact of this event (Noyes et al., 2009). By the 2000s, to further differentiate the outcomes between traumatic events with and without NDEs more non-NDE and control groups were added for comparative purposes which will now be covered.

### **Psychological Consequences**

While NDEs are generally life-enhancing, integrating the experience as a part of the self is ongoing due to multiple factors. The privilege of entering and returning from a more

vivid reality alters prior cognitive schemas, generating many questions (Jahromi, 2021). Psychological distress often results upon the return to a lower consciousness, especially in children (Greyson, 1997). Morris and Knafl (2003) utilised a naturalistic inquiry by interviewing 12 NDErs within a clinical setting to explore the nature of NDEs and prescribed meanings, such as altered conceptions of the self, future, and emotions. The immediate aftermath was met with existential frustration, confusion, depression, and questioning one's sanity. Some participants regretted returning to this world and knowing something remarkable had happened but struggled to articulate this and received little guidance (Morris & Knafl, 2003). Long-term meanings were also recorded involving an awakened consciousness that redirects the life course, focusing on a new life purpose, psychological adjustment, and integrating a wide range of new values. These may have important outcomes for dreams as interconnected with waking life.

The psychiatric community has typically aligned NDEs with pathology. However, NDEs unfold differently from other mental illnesses and evidence argues for specific health interventions underpinned by the positive impact of the experience (Athappilly et al., 2006). Greyson (2001) utilised the Impact of Event Scale (IES) to assess 194 participants after trauma, 148 of whom had an NDE finding that compared to controls, this group reported more intrusive symptoms of PTSD (i.e., intrusive thoughts, nightmares) however, they also displayed fewer avoidance symptoms. When compared to a criterion sample of people who had PTSD, NDErs scored considerably lower on the IES regarding PTSD symptoms, failing to reach the cutoff for this condition. This is indicative of the mitigating effects of NDEs on trauma meaning intrusive symptoms as reminders of the experience are insufficient for a diagnosis of PTSD (Greyson, 2001). The current study seeks to further explore how nightmares are appraised due to an NDE.

The most compelling change and mediating factor in the complex coping process relates to views about death (Groth-Marnat & Summer, 1998; Schwaninger et al., 2002). In a prospective longitudinal study, the Life Change Inventory (LCI) was utilised along with three sets of interviews to capture aftereffects after 2-year and 8-year follow-ups conducted with a non-self-selected group of 344 survivors of cardiac arrest of which 68 had an NDE (Van Lommel et al., 2001). At both measuring frames, NDErs had less or no fear of death when compared to survivors of cardiac arrest without an NDE along with more pronounced attitudinal shifts such as enhanced interest in understanding themselves, appreciation of the mundane, increased self-confidence, intuition, and emotional sensitivity (Van Lommel et al., 2001).

A recent trend in scholarship relates to the relationship between specific NDE features and life changes. Pratte (2022) measured the impact of individual items on the NDES on happiness, life satisfaction, mood, and perception of purpose with 51 NDErs finding that item ten, 'Did you seem to be aware of things going on elsewhere?' 'significantly impacted mood' and life purpose was significantly associated with item four- 'did you suddenly seem to understand everything?' Important findings throughout the literature supported by this study were that negative NDEs further hinder adaption and most NDErs (54%) reported that aftereffects were challenging (Pratte, 2022). This study was correlational meaning causation cannot be inferred as participants cannot be allocated to experience an NDE. These quantitative studies reveal important insights however, nuances are absent as particular biographical details of changes remain unspecified.

Phenomenological studies have contributed to understanding the personal meanings given in the wake of an NDE. Wilde and Murray (2009) conducted an interpretive phenomenological analysis with three NDErs to explore the biographical context of who they were before and how they viewed themselves after an NDE. Participants contemplated and

researched the meanings of what they were told and saw, and these helped them reevaluate their lives, who they truly were, and their life goals. Shifts in life goals included being more people and humanitarian-centred. Zingmark and Granberg-Axell (2023) conducted a phenomenological hermeneutic study featuring four participants, finding that the event produced restructured notions of reality and expanded perceptions, impacting values and beliefs towards life and death. It was found that a true self emerges as removing the fear of death lifts restrictions on people's lives and decisions. Participants stated that they felt becoming more mindful, alive, grateful, and vulnerable since their NDE. This study was conducted only 10 weeks following patient NDEs during sudden cardiac arrest, indicating that altered worldviews may be immediate. However, like other qualitative studies, the small sample size means limited diversification (Zingmark & Granberg-Axell, 2023).

### **Social Outcomes**

The psychological shifts common after NDEs interact within a social context. Many NDErs become less self-obsessed and more socially orientated. Jahromi (2021) conducted a descriptive phenomenological study with 18 NDErs recording that this event positively impacted their relationships through greater compassion, open-mindedness, prosocial attitudes, and being less judgemental towards others, accepting, and helpful towards humanity (Jahromi, 2021). Long and Woollacott (2024) conducted a quantitative survey and from 2011 to 2021 regarding the transformational aftereffects of 834 NDErs, the largest sample recorded, comparing them with individuals who faced life-threatening events (LTEs). Most NDErs, (88.5%) reported changes in their lives and 54% reported that these were substantially positive, including enhanced interest in social concerns and greater community participation (Long & Woollacott, 2024). This is likely owing to the dissolution of the personal ego. However, the LTE sample was small as it only contained 42 participants, and a control group was absent. It was an internet-based survey, which is now more common, and

believed by the authors to be as reliable as printed surveys. However, self-selection bias was a potential issue meaning participants may not represent all experiences (Long & Woollacott, 2024). As NDErs become communally focused, familial relationships are more important, meaning they have a critical role in integration.

Family and friends must adapt to the rapid and durable shifts in ideas, values, and actions experienced by an NDEr. Qualitative studies have shed some light on how NDErs make sense of their relationships. Insinger (1991) conducted in-depth interviews within a thematic analysis with 11 NDErs to explore altered familial and social networks. The ineffability of NDEs creates difficulties when broaching the subject and friends and family may feel uncomfortable. Altered attitudes and values regarding goals, reduced materialism, and humanitarian concerns may conflict with prior family values straining relationships. Generally, emotional bonds can be strengthened and NDErs are often admired by loved ones who believe they have special insight (Insinger, 1991).

Studies have provided an array of issues relating to the complexity of disclosing an NDE. Hoffman (1995) applied a mixed methods approach, including qualitative verbal accounts of 50 NDErs over three years and the barriers to determining disclosure. Knowing about the existence of this experience before it happened helps deal with feelings of isolation as an interpretive, schematic framework is available. A process of cascading disclosure was reported as disclosing one aspect necessitates other disclosure patterns. Contextual factors are relevant as certain traumatic events that evoke NDEs (i.e., suicide) conjure up notions of innocence, guilt, and stigma (Hoffman, 1995). Listener selection is guided by caution and vigilance as rejection and disconfirming responses especially early on hinder integration and positive initial reactions are vital for encouraging continued disclosure.

Studies show the importance of validating the experience as real. Bianco et al. (2017) conducted an interpretive phenomenological analysis through a discourse analysis exploring

the interpersonal meaning-making processes of 6 NDErs and recorded the problems impeding NDE integration. Greater insight into the self and what was wanted from life was achieved, and detachment from the concerns of the daily world was common. Like Insinger (1991) this altered worldview impacted relationships. This study found that other opinions even when critical could lend insight into the experience, but validation was empowering helping to integrate NDEs (Bianco et al., 2017 ). However, being qualitative the sample was small and included participants who had not been in a life-threatening situation and scored lower on Greyson's NDES.

Disclosure is more difficult for negative NDEs owing to religious notions about the afterlife being used as an interpretive framework (Hoffman, 1995). In an excellent unpublished interpretive phenomenological analysis, Melloul and Kinnunen (2023) found that people who have distressing NDEs were often pathologized when trying to talk about their NDE and were encouraged to keep quiet. This is emotionally detrimental as rather than enhancing a life purpose, feelings of inadequacy, abandonment, and being haunted by aspects of the experience are prevalent contributing to worse mental health and increasing the likelihood of PTSD onset (Melloul & Kinnunen, 2023).

The value of living in service to others alters careers has been included in findings in qualitative studies. Generally, this aligns with personal and spiritual values following the experience. In a single case study involving a physician, longer-term transformations were reported resulting in subsequent changes to this career to understand NDEs (Woolacott & Peyton, 2021). This led her to refocus her medical career toward hospice and palliative care. The NDE placed her in a better position for this role as the absence of the fear of death was felt by the dying. While this was only a single case study, qualitative studies support the notion that careers are geared toward others and that NDErs have a calming effect on those around them reflecting deeper spiritual convictions (Wilde & Murray, 2009).

## **Spiritual Beliefs**

The near-death experience is primarily a spiritual awakening altering views of the soul, God, and the afterlife (Gibbs, 1999). Musgrave (1997) surveyed 51 NDErs to explore lifestyle changes following an NDE including altered beliefs finding that 42 (82%) reported absolute faith in God since their NDE, compared to 15 (29%) who had a strong faith before their NDE, and most, 47 (92%) reported death as a new beginning. However, 13 (26%) believed there is only one way to God compared to 33 (65%) refuting this. The study also found that 34 (67%) were very spiritual or religious compared to 7 (14%) before an NDE, and 10 (20%) reported being quite spiritual or religious. The use of standardised questions, however, created methodological issues as religion and spirituality in some studies like this one are presented interchangeably (Gibbs, 1999).

When religious and spiritual beliefs are explicitly reflected within measurements personal spiritual attitudes are usually more pronounced for influencing beliefs, often replacing religious dogma. In an Australian study comparing religious and spiritual attitudes prior to and after NDEs, Sutherland (1990) found that 72% of 50 NDErs viewed their NDE as more indicative of a spiritual dimension rather than reflecting religious dogma. 84% reported no interest in religion compared to 50% before an NDE while 80% believed in reincarnation after an NDE compared with 43% prior an NDE (Sutherland, 1990). Following an NDE, individuals often report a longing to return to the source conceived as an ultimate destiny or home that all eventually merge (Stout et al., 2006 ). Traditional religious institutions are too rigid to accommodate new universal values and NDEs seldom reflect dogmatic symbolism and ideas.

Some studies suggest that NDErs are more inclined to incorporate multiple philosophical ideas into their spiritual system related to alterations in perceptions of reality and glimpses into past lives during and after the near-death experience. Wells (1993)

investigated direct beliefs about reincarnation by interviewing 14 NDErs finding that 13 either firmly believed in reincarnation or were open to the possibility compared with only three before an NDE. A quantitative questionnaire in the study reported that 70% of 29 NDErs believed in reincarnation compared with 30% of 30 non-NDE participants. Beliefs about the nature of reincarnation range from individual souls forming a collective consciousness embodied within material existence, intuition of living before, and increased spiritualism (Wells, 1993).

The spiritual purpose of existence focuses on eliminating bad karma and learning lessons. In a New Zealand study, Lindsay and Tassell-Matamua (2021) also used a mixed methods approach comparing NDErs with non-NDErs and a control group completed an online survey and the After Death Belief Scale found that NDErs measured significantly higher for spiritual belief types such as spirituality, embodiment, reincarnation, and disembodiment spirits. In the qualitative component, a thematic analysis with 18 NDErs showed 15 believed in life after death, 6 believed in reincarnation, and most (12, 67%) outright rejected religious doctrine (Lindsay & Tassell-Matamua, 2021). Positivist frameworks used to study dreams mean that little is known about the nature of spiritual meanings placed on dreams.

Studies measuring various NDE aftereffects reveal how personal beliefs (i.e., reduced fear of death) and social views (i.e., acceptance) coincide with universal spiritual views. Long and Woollacott (2024) recorded that belief in God substantially increased from 37% to 72%, and 25% to 84% for NDErs whereas there was only a slight increase for non-NDErs from 36% to 45% and 29% to 38%. Qualitative responses collaborated these findings including 'It's really enhanced my belief in a larger universe' and 'I can't attend church without wanting to debate their beliefs, and yet I know how they believe is just as valid as I see life', 'much more devoted to prayer, close to god, like to read the bible but not here to preach' and

‘what I now know is that all paths lead to home and we all must love each other and help one another’ (Long & Woollacott, 2024). This was an American study, and less is known from a New Zealand perspective. Jahromi (2021) recorded the importance of enhanced spiritual-religious participation, and a certainty about life after death. Participants felt closer to God and reported believing they had a special life purpose.

### **Physiological Integration**

Physiological sensitivities are common after NDEs. Some studies recording these used mail surveys which can bias the type of participants who participate. Early evidence provided by Ring and Rosing (1990) found that when administering seven mail questionnaires covering various aftereffects completed by 74 NDErs and 54 non-NDErs, the former exhibited striking increases in psycho-physiological changes. These included psychic awareness, psycho-energetic effects, and psychokinetic functioning. Items selected on a Kundalini scale measuring energetic effects were pertinent to a condition known as electric sensitivity syndrome including increased allergies, hearing acuity, hot and cold flushes, mood fluctuations, and sensitivity to light (Ring & Rosing, 1990). The authors implicated kundalini activation in these alterations, a subtle form of bioenergy thought to be located at the base of the spine that finds expression upon psycho-spiritual transformation, although this is unproven (Greyson et al., 2015).

The presence of NDErs has been recorded to be physically beneficial for others. Greyson et al. (2015) recorded a calming effect NDErs had on people and animals in a large sample of 216 NDErs compared to 54 participants who had a close brush with death without an NDE. Many NDErs were told that others described feeling less burdened and rejuvenated in their presence. Another important finding also recorded earlier by Ring and Rosing (1990) was the new ability to heal others, through energy work. This can be converted into a profession, however, for the most part, this healing is done informally due to less egotistical

and materialist motivations. This involves mental diagnoses and activating the body's natural healing system (Greyson et al., 2015).

Some studies suggest greater psychic and intuitive abilities after NDEs. An early study conducted by Sutherland (1989) specifically examined reports of psychic phenomena in 40 NDErs comparing these to psychic tendencies before an NDE and found significantly enhanced beliefs in psychic abilities in 14 of 15 items including clairvoyance, precognitive flashes, and perception of auras. In particular, most participants reported feeling guided and attuned to an inner wisdom suggesting NDErs trust themselves more (Sutherland, 1989). The sample reported believing to have the same level of psychic abilities before an NDE as the general population meaning NDEs potentially did not bias post-NDE reports. Recently, within the phenomenological study of Jahromi (2021), transcendental abilities were acquired, which the authors subdivided into 'foresight' and 'transcendental perceptions'. Participants inherited emotional and mental faculties such as accurately anticipating the future. Everything seemed to radiate with beauty, and halos were seen around others. Some of these aftereffects reportedly fade over time while others require adaptation.

The preceding discussion focused on the common aftereffects following the profound emotional and visual aspects of near-death experiences. Predominately quantitative and some qualitative studies have so far uncovered useful insights into a broad range of aftereffects impacting the mental, social, spiritual, and physiological states of NDErs. There is still an absence of research into NDEs outside of the US and Europe and more so, the suspected, and only recently more verified diverse impact of NDEs on sleep and dreaming.

### **Sleep and Dreaming Following Near-Death Experiences**

While this thesis explores the multilevel contextualised impact of NDEs on dreaming, sleep-related alterations have been recorded. In a New Zealand study, the effects of NDEs on sleep habits and quality were explored with a trauma group, and controls who did not

experience a life-threatening event (Lindsay & Tassell-Matamua, 2020). Indicators based on self-reports revealed that sleep quality was hindered for both groups exposed to trauma, such as sleeping an hour less than the general New Zealand population, with time taken to fall asleep being twice as long, and waking throughout the night, implying that the traumatic event rather than an NDE may be the protagonist behind altered sleeping patterns. However, NDEs may have mediated this relationship as deeper NDEs were associated with more changes (Lindsay & Tassell-Matamua, 2020). In another New Zealand study conducted by Lindsay et al. (2023) involving 26 NDErs, 12 participants who had a near-death event without an NDE, and 19 participants who had not come close to death, wrist actigraphy was used over two weeks along with subjective sleep scales. This study found significant alterations for NDErs regarding sleep latency, sleep duration, and sleep efficiency compared with the two other groups. NDErs were more likely to have dysfunctional sleep and sleep state misperception meaning they experience less sleep compared to the general population. The authors speculated that the arousal caused by dreaming may mediate this (Lindsay et al., 2023).

Spiritual dimensions of dreaming were explored in another recent New Zealand study into the sleep patterns of Māori. Haami et al. (2024) conducted a whakapapa-informed thematic analysis into the personal experiences of wairua (spirit) during the sleep of nine Māori participants, one of whom referenced the effects of an NDE on dreaming. A Whakapapa-based research design is metaphysical and incorporates the genealogy of holistic ways as the spiritual underscores how Māori interpret reality (Haami et al., 2024). This study showed the value of contextual lived experiences as two layers of findings were recorded. Dreams played a role in spiritual guidance for the immediate and distant future. Overall, spiritual influence on sleep and dreaming was invaluable for reconnecting with deceased

loved ones, completing waking tasks, and interacting with non-human entities (Haami et al., 2024).

Dreaming and death have often been connected at a philosophical level. Lucid dreaming, like NDEs, preserves self-perception with some arguing that lucid dreaming is a transpersonal experience that can be utilised for spiritual practice and gaining insight into the nature of consciousness (Stumbrys, 2018, 2021). Lee (2004) suggests that in dream yoga practiced in the Tibetan tradition, how the mind appears in the lucid dream state will be how it appears in the Bardo state, as lucid dreaming like NDEs may be connected to the conscious state of death as both are detached from a restricted physical body. The goal of dream yoga is non-dual awareness in dreams and to remain in this across waking and sleeping. The lucid dreamer can also engage with others in a new dimension of consciousness within the inner realm. Like the bardo state, dreams unfold in complex ways in multiple directions (Lee, 2004).

Some studies have compared NDEs to dreaming. Using secondary sources, Lin and Xiao (2022) compared aspects of dreams and NDEs concluding that both contain similarities but are distinct. Each is a temporary disconnect from reality, susceptible to memories of previous experiences, and can be interpreted through cultural, religious, and spiritual frameworks. However, considerable differences are evident as NDEs feature a clear sensorium, vivid reality, and more powerful emotions making them more memorable. The brain is sometimes impaired during an NDE and still functional in dreams, and NDEs usually feature deceased entities whereas dreams also contain the living (Lin & Xiao, 2022). Dreams are usually not perceived as real and therefore these do not inspire committed verifiable lifestyle changes (Long, 2021; Zingmark & Granberg-Axell, 2023).

A physiological proposition for the subjective and visual qualities of NDEs has implicated REM intrusions common in sleep disorders. When exploring the lifetime

prevalence of REM intrusions, Nelson et al. (2006) found those relating to sleep paralysis and audio hallucinations were more associated with an NDE group compared to controls speculating that REM intrusions may partly be responsible for NDEs and syncope. They propose that REM is activated during clinical death, and this also explains why consciousness awakens before the body during hypnopompic emotions and imagery. However, Greyson (2013) disputes this REM hypothesis as anaesthesia during cardiac arrest inhibits REM intrusions, NDEs contain specific, usually positive aspects, whereas REM intrusions are often more negative. An interesting finding nevertheless was that people who have NDEs are more likely to confuse their dreams with waking reality (Nelson et al., 2006).

Insights into sleep and the subjective effects of dreaming until recently are still minimal. Some early studies into psychic phenomena included items superficially measuring dreaming as an aftereffect. These recorded that NDEs enhanced areas related to dreaming, such as conscious awareness, vividness, sense modalities, recall, and unusual dreams (Kohr, 1983; Schwaninger et al., 2002; Sutherland, 1989). Funkhouser (2021) recently distributed an online questionnaire to 46 NDEers recording that 45% of dreams were experienced as more emotionally positive and 20% more negative since their NDE. Half the sample reported more vivid dreams, over a third had improved recall, and nearly half had more spiritual dreams. Around half of the sample believed that their NDE provided them with better insight into their dreams. The study supports the continuity hypothesis of dreaming as NDEs are highly vivid, emotional, and spiritual events. However, it was a pilot study and not highly detailed (Funkhouser, 2021).

It is in a recent New Zealand context that dreams after an NDE have been given wider attention. For example, (Lindsay et al., 2024) altered the Mannheim Dream Questionnaire and recorded higher interest in dreams and perceived meaningfulness for NDEers compared to those with trauma without an NDE and a control group. Creative benefits were also found

more from dreams for NDErs, and this group also experienced more OBEs, lucid, and precognitive dreams with medium to large effects. Hypnogogic and hypnopompic REM intrusions were also observed. The study concluded that subjective NDEs and not trauma were responsible for the alterations in dreaming for NDErs (Lindsay et al., 2024). Based on these findings, NDEs produce various changes to dreaming previously left unexplored.

### **Research Aims**

The current phenomenological study will explore the subjective effects of NDEs on dreaming. Qualitative studies can record how dreams are experienced at certain times during the lifespan, with contextualised aspects influencing experiences and perspectives. Both dreams and NDEs provide insights into human consciousness and the mind-brain relationship, however, the potential impact NDEs have on dreaming has so far been neglected throughout scholarship. Additionally, understanding the effects post-NDE dreams have on sleep in general and waking has implications for health and well-being as alterations to dreaming require integration with other NDE aftereffects. The study asks how this experience reshaped dreaming in the following ways:

- 1) Changes in attitudes, beliefs, and meanings now assigned to dreams.
- 2) Practical functions, imagery quality, and emotional depth.
- 3) Types of entities, interactions, and level of awareness in dreams.
- 4) Extrasensory perception in dreams.

Responding to these questions can be achieved through a methodological perspective that includes various contextual levels. This will now be covered in the next chapter.

## **Chapter Three: Methodology**

This thesis applies a reflexive thematic analysis to represent important dream experiences after NDEs. A reflexive thematic analysis is a refined qualitative analytic approach recognising researcher subjectivity with experiential intentionality of phenomena unfolding within a lived world (Braun & Clarke, 2021). Therefore, reflexive thematic analysis is an ideal framework for generating rich multidimensional patterns of dreaming activated by NDEs. Additionally, reflexive thematic analysis of intrinsic subjective dream narratives includes contextualised aspects of dreams that consider broader interpersonal factors and how these impinge on personal meanings. An excellent advantage of reflexive thematic analysis is its accessibility and applicability across various paradigms (Braun & Clarke, 2021). These include critical realism and phenomenology, which propose certain assumptions about data and underlying possibilities.

### **Critical Realism and Phenomenology**

To ensure that participants' experiences of dreaming following an NDE were meaningfully represented, the study was guided by appropriate ontological, epistemological, and theoretical assumptions (Willig, 2022). Epistemology provides criteria for what constitutes the adequacy and legitimacy of knowledge and the researcher's relationship to it, while ontology considers the beliefs forming the basis of reality and what is knowable (Crotty, 1998). Crotty argues that a selected methodology must be positioned within a specified theoretical context and assumptions guiding the research process as this enhances the integrity of the analysis and the study's findings.

Since the beginning of the 20th century, psychology has adhered predominantly to empiricist and positivist natural sciences based on a singular, external reality (Riley & Chamberlain, 2021a). Both approaches derive from objectivism arguing meaning is extracted from objects measured through hypotheses to create regularities or mechanical 'laws' based

on cause-and-effect relationships in isolation from consciousness, and contextual historical, social, and cultural subjectivities (Riley & Chamberlain, 2021a; Varpio et al., 2020). An opposing subjectivist position argues that this creates questionable data as the real-world context behind life experiences is removed. Drawing upon this premise, a constructivist paradigm places humans as conscious entities that do not discover 'truth' rather they are its architects (Varpio et al., 2020). This is because an objective reality is not possible, only one that people construct through conceptual schemas of their experiences of reality built upon a foundation of contextual elements, especially language, with the researcher aiming to gather accounts of these realities (Crotty, 1998; Varpio et al., 2020).

A critical realist ontology underscoring this study argues for truth based on past forces in an objective reality independent of the researcher's ideas, however, this reality is in flux, as all systems whether biological or personal are subject to change through personal agency (Pilgrim, 2019). Empiricist claims regarding conceptual understandings discovered by detached science are unfeasible as science is a social activity, and claims of objectivity are dubious as bias is inherent within the human condition. Absolute universal laws are nonsensical as cultural, biological, and linguistic mediation of perspectives, representations, and interpretations means only a partial understanding of phenomena is realistic.

A critical realist ontological stance is associated with a phenomenological epistemology as the central agency is subjective conscious experiences in a lifeworld (Brinkmann et al., 2020). Phenomenology (conceptualised by Edmund Husserl Lawthom and Tindall (1994)) argues that a comprehensive research paradigm must explain subjectivity and intersubjectivity including cultural and spiritual forms to produce a complete eidetic of the spirit. Accordingly, consciousness exists as a full and rich stream of flux conscious states including NDEs and dreaming as existence is based on such subjective experiences (Moran,

2013). Whatever exists in consciousness is recovered through reflection and can produce changes in attitudes toward phenomena (Moran, 2013).

The lifeworld refers to the contextually bound intersubjectivity, location, and mental orientation that furnishes the ground for all mental performance and scientific exploration (Eatough & Smith, 2017; Moran, 2000). Objects in this lifeworld are contingent on intentionality, meaning the person's location, context, and mental orientation (Lawthom & Tindall, 1994). Central to phenomenology is the concrete essence of lived experience in the lifeworld, and while positivism provides an outline of these experiences, the lifeworld is the location of existence. Humans experience the lived world as embodied entities acting through the physical organism and local spaces in subjective, meaningful ways (Lawthom & Tindall, 1994). Phenomenologists seek to understand experience not as predictive and consistent across time, but as temporal and subject to change. It is idiographic as specific and unique idiosyncrasies rather than generalisations are the goal and the latter if applicable must begin from the particular along an individual basis (Eatough & Smith, 2017; Lawthom & Tindall, 1994).

### **Phenomenology, Near-Death Experiences, and Dreaming**

Phenomenology offers an ideal epistemological lens for studying common but anomalous experiences that deviate from positivist notions and accepted norms of reality as personal meanings that often relate to spiritual, transcendental topics (Wilde & Murray, 2010). Regardless of empiricist notions of legitimacy, any subjective experience can be studied. As potentially confounding the mind-brain relationship, NDEs challenge measures applied objectively meaning phenomenological research methods are suited to exploring the essence of this event (West, 1998). Individuals after NDEs experience dramatic personal, interpersonal, and spiritual reality shifts, and while quantitative methods such as Greyson's NDES are useful regarding the frequency and depth of this event, the essence of dreaming

after this life prioritising state when focusing on lived experiences can achieve complex insights (Turnball, 2024).

Rather than being the object of study, dreams in the context of an NDE are explored in specific times during integration and as ongoing and contextually informed meaning participants make sense of these within social and cultural systems (Riley & Chamberlain, 2021a). Within this study, it is not just the dreams that are of concern but rather how the dreams arise and inform the relationship between how the NDEr makes sense of the NDE in an ongoing manner on their terms. Awareness on the threshold of death calls into question what was previously known regarding notions of embodiment, the mind's existence within the body, and human experience (Hoffman, 1995). While NDEs are subjective, they can feature OBEs which are disembodied experiences involving enhanced perceptions beyond the typical physical realm of understanding. This also relates to the spatiality of the lifeworld as knowledge of what exists as reality, and time and space are related to bodily capacities (Lawthom & Tindall, 1994).

### **Phenomenology and Hermeneutics**

The complexity of this event must not be imposed upon participants. Hermeneutics regards the theory and practice of interpreting the meaning of texts to achieve intelligibility (Cassidy et al., 2011). Opposing paradigms of phenomenology exist, with Husserl arguing for a descriptive approach bracketing techniques to mitigate researcher bias (Turnball, 2024). This leans on realism as experiences are taken as scientifically rigorous and objective. The current study, however, applies a hermeneutic model popularised by Martin Heidegger, who fused phenomenology within an interpretive double hermeneutic approach (Riley & Chamberlain, 2021b). This is suited to exploring dreams as it aims to make meanings explicit between participants and their lifeworld, sometimes through metaphor. Bias mediates the

research and is unavoidable for interpretation as human agency is intertwined with contextual elements of lived experience, such as language within a dialectic.

As subjective social beings, language is shared between the researcher and participants in this double hermeneutics interactive process to capture the core meaningful essence of dreaming after NDEs. Both actors work together to reconstruct reality based on prior beliefs, perceptions, and experiences derived from a social existence propagated by these shared linguistic understandings (Varpio et al., 2020).

Throughout the research, preconceptions are recorded and reflexively managed as experiencers preserve their status as central authorities of dreaming within the context of NDEs with reports accepted at face value. The researcher keeps an empathetic and critical distance when engaging with participants in interpretive dialogue based on their broad horizons, or subjective histories and conceptions regarding how they make sense of dreaming in the context of an NDE in idiographic and divergent ways (Horrigan-Kelly et al., 2016; Suddick et al., 2020). The likelihood of achieving this is also contingent on selecting appropriate methods.

## **Chapter Four: Methods**

The importance of dreaming after a transcendental event requires that participants express themselves on their own terms. Semi-structured interviews are ideal for conducting phenomenological research by encouraging a voice, freedom, and transparency. Participants can explore themes and make connections in a manner not initially transparent to the researcher (Health et al., 2009). This is opposed to structured interviewing where predetermined, standardized questions elicit limited responses and fail to extract in-depth meaningful answers that go deeper beneath the exterior and minimise the subjective interpretation required by the researcher (Zhang & Wildemuth, 2009). Alternatively, unstructured interviews where researchers construct questions in the field were unsuitable as these are opportunistic, increase power imbalances, are overly conspicuous, and are prone to miss key insights (Mueller & Segal, 2015).

### **Participants**

Before recruitment commenced, the researcher was provided with a preexisting dataset comprising three relevant interviews conducted by the study's co-supervisor, Nicole Lindsay as part of an affiliated study focusing on sleep (Lindsay & Tassell-Matamua, 2020). For both the original and present research, participants had to be at least 18 years old to be eligible to participate. There were no exclusion criteria regarding the timing and form of experience. The study applied a purposive sampling procedure as it required a homogenous sample consisting of people who had an NDE, and that they felt this had an impact on their dreams (Sullivan & Riley, 2012). Beginning in March 2024, the study's remaining participants were recruited through an advertisement (see Appendix A) placed on several online community notice boards, a Massey University Psychology students' online platform, an NDE online forum, two local libraries, Otago University, and an Otago newspaper

The study was also advertised on the main supervisor’s Twitter account and contacts gathered by prior Massey researchers containing participants from past NDE studies. By early April, 11 individuals contacted the researcher who received an information sheet (see Appendix B), participant content form (see Appendix C), and NDES (see Appendix D). From these, four individuals completed and returned the NDES and participant consent forms, with one later withdrawing from the study, leaving three participants for a 27% response rate, bringing the total sample to six. The remaining four responded through the Massey University database. Details of the sample are provided in Table 1.

Table: 1 Participant Details

<b>Pseudonym</b>	<b>Age</b>	<b>Age of NDE</b>	<b>Religious belief</b>	<b>Ethnicity</b>	<b>NDE trigger</b>	<b>NDES score</b>
Ariel	62	18	Judaism	Jewish	Overdose	N/A
Luna	56	1 day	Spiritual	NZ Caucasian	Born Blue	N/A
Ava	N/A	2	Spiritual	NZ Caucasian	Asphyxiation	N/A
Tayla	65	57	Spiritual	US Caucasian	Overdose	21
Jimmy	74	25	Anglican	NZ Caucasian	Hepatitis	14
Basil	74	71	Presbyterian	US Caucasian	Surgical procedure	13
Susan	59	18 months	Agnostic	Australian Caucasian	Near drowning	N
Sophia	33	31	Open-minded	NZ Caucasian	Horse accident	13
Leonore	43	34	Atheist	NZ Caucasian	Blood clot	15
Amelia	46	12	Spiritual	NZ Caucasian	Brain bleed	13

N/A=Not Applicable

## **Screening**

The NDES is the standard tool for determining the presence of an NDE (Greyson, 1983a). This scale measures the core experiences of NDEs with 16 items on four dimensions: cognitive, affective, transcendental, and paranormal. An ordinal scale of 0-2 is utilised to assess NDE presence and depth with a cutoff of 7/32 indicating the presence of an NDE. The NDES has high internal consistency (Cronbach's alpha = .88), split-half reliability  $r = .84$ , and test-retest reliability over six months  $r = .92$ , and longer,  $r = .83$ . When administered to the same sample after 20 years, correlational coefficients were significant between the scores for the 16 items, four dimensions, and the overall scale (Greyson, 2007a). A limitation of the NDES is its failure to record distressing NDEs increasingly verified since its inception categorised as inverse, empty, and hellish (Greyson & Bush, 1992). These now range between 11% and 22% and require special academic and clinical attention (Greyson, 2023). All but one participant made the cutoff for a core experience with the one exception being included owing to her memories of the event still being as vivid and resulting in many aftereffects, one of which, was dreaming.

## **Data Collection**

The study utilised semi-structured interviews as the sole method of collecting meaningful dream experiences. One participant (Basil) supplemented his interview with a written account not used in the thematic analysis. This is the most applied interviewing technique and has many advantages relating to sensitive topics like near-death experiences and aftereffects (Smith & Sparkes, 2016). The application of semi-structured interviews created a relationship between equals during interviews as NDErs had a voice in an empathetic and non-judgemental setting to freely discuss how a life-changing event impacted their dreaming. While some broad questions were formulated on an interview schedule before the commencement of the study (see Appendix E), these were not strictly adhered to, with

questions added as interviews progressed based on participant insights and responses (Runswick-Cole, 2012). The interview schedule was based on the insights reported from the wider study of Lindsay et al. (2024) which the researcher was well versed in, such as findings regarding creativity, problem-solving, nightmares, OBEs, lucid dreaming, sleep paralysis, and vivid dreams.

Interviews were conducted between April and May 2024. Six participants opted to be interviewed privately online via zoom at a date and time determined by participants. This was due to preference and geographical limitations. Two participants were locally based in Otago, two were from Auckland, two were from the United States, and one was based in Australia. One in-person interview was conducted at the Dunedin Public Library. Before interviewing commenced, demographics were recorded, and participants described the circumstances surrounding their NDE. Interview length ranged between 42 minutes to 1 hour and 47 minutes, with an average duration of 70.6 minutes. These were recorded through Zoom software and a backup digital device. Interviews were transcribed using OtterAI with participants emailed transcripts for member checking within 10 days upon request. Before interviewing, they provided informed consent based on knowledge of what was expected from them through their participation. All participants received a koha in the form of a \$30 voucher.

### **Ethical Considerations**

Ethical approval was granted on 29 February 2024 by Massey University Human Ethics Ohu Matatika 1, Application OMI 23/53. Important ethical guidelines were clearly outlined within the information sheet and reinstated before interviewing. Any prior and following questions or details requiring attention from participants were addressed through email. Safety measures were implemented for the researcher in the advent of a home interview through a researcher safety plan, however, this did not eventuate (see Appendix F).

Measures were taken to uphold privacy and confidentiality throughout the study. Data was stored on a password-protected computer with identifiable data, such as names, emails, and residences, preserved within an individual file connected to transcribed data through a numbers system. Personal information was also removed from transcripts before analysis.

Once interviews were transcribed, anonymity was maintained through pseudonyms. This included any non-NDEr or entity whose name was given. Data including transcripts, personal information, and audio files were stored on a Massey University OneDrive. No data entered any clouds that were not completely anonymised. Direct quotes used in the analysis to exemplify themes are recognizable only to participants. Other identifiable information such as other people's names or details was excluded from the analysis or given pseudonyms. Upon completion of the study, consent forms were transferred to the study's two supervisors, and audio recordings were deleted.

Owing to the personal nature of NDEs and events that trigger them, it was anticipated that participants may become emotional while being interviewed. Signs of any distress displayed by participants were monitored but failed to eventuate. Participants could pause interviewing and were given access to several around-the-clock mental health care numbers. The study's co-supervisor, Nicole Lindsay, an NDEr with an extensive background in NDE research was present during four interviews to assist with general interviewing and training. The right to withdraw from the study was in place for up to two weeks after being interviewed. Any feedback given on the day or later by participants was highly positive and consistent with the therapeutic value of discussing an NDE found in other studies. Steps were made to incorporate a Māori worldview bound through the partnership under Te Tiriti, however, no Māori NDErs participated in the study to attend to in discussion.

## **Thematic Analysis**

A thematic method that analyses texts enables descriptions of NDEs ensuring the inclusion of all self-reported aspects of themes within discourse (Cassol et al., 2018 ). Most studies have used close-ended NDE questionnaires regarding NDE aftereffects, however, studies indicate that these experiences are encoded deeper than other events suggesting detailed contextualised subjective narratives are produced by this event (Cassol et al., 2019). Reflexive thematic analysis (RTA) was selected as the most suitable and flexible method for identifying and arranging meaningful experiences of dreaming into coherent global and organising themes (Willig, 2022). A highly influential paper described TA as a widely used but poorly understood method. Criticisms toward this approach focus on its application in a non-reflexive manner and disorientated, non-focused application. As a response, reflexive TA is a specific approach of TA embracing the researcher's subjectivities or biographical presence as an evolving analytic tool of deep reflection and engagement with data (Braun & Clarke, 2021; Varpio et al., 2020). The researcher is empathetic to reports of alterations in the nature and attitudes towards dreaming believed to derive from NDEs as promoted by a reflexive TA perspective (Willig, 2022).

Once transcribed and de-identified the 10 interviews of the two datasets were uploaded to the Miro coding platform from individual Microsoft Word files. Once transcriptions were arranged in Miro, immersion in the data set began with the reading of transcripts individually through an idiographic approach to identify relevant dream content for each participant. A coding framework based on 24 codes was created consisting of relevant concepts derived from Lindsay et al. (2024) and recurrent patterns in the interviews. Listening to audio copies of interviews assisted with the tone of what was said. The most relevant constructs were recorded and shaped into meaningful, interpretive codes.

Themes were identified when the contents of the 24 codes were placed within 9 clusters. These 24 featuring over 700 text segments were reduced to 25 basic themes most commonly representing the meaningfully lived experiences of dreaming after NDEs but were diverse, covering a range of dream types, such as OBEs and lucid dreaming. These basic themes were then placed within three groupings based on related conceptual content and were then assembled into 11 organising themes under the central aspects of the four global themes. Three global themes contained nine organising themes unified by 21 basic themes with one global theme featuring two organising themes and four basic themes. Under the global theme of 'suspended dream time', for instance, were the organising themes of 'war and remembrance' and 'invitations to the future' tied together by the basic themes of war, familiarity, the idiographic self, death, and colours.

## Chapter Five: Results

The following themes characterise phenomenological shifts in subjective experiences of dreaming upon encountering and returning from the hyper-lucid state of a near-death experience. Dreams thereafter featured multi-dimensional particular and homogenous qualities holding personal, social, spiritual, and embodied consequences for this group based on meaningful interpretations formed through lived experiences. Generally, these represented positive alterations of dreams and classifications of these emerging during various stages of contextually mediated integration of this profound, transformational event. The interpretations participants derived from dreams assigned to their waking biographies also highlighted waking consciousness of this new NDE reality and how perceptions and meanings they gave to dreams shaped their views of the spaces and people around them. Furthermore, participants described how dreams occupied a premium place in understanding consciousness on the threshold of death.

The chapter covers 11 organising themes under the four overarching global themes. The first global theme captures aspects of dreams that become prominent after dreams were worthy of recording in 'Dreams are teachers'. These dreams played important functions in who participants believed they were and what they experienced while awake. The theme 'Suspended dream time' continues the analysis as new understandings of time and space entered participants' dream life in memorable and contextualised ways. Then, 'The conscious states of dreaming' explores embodied awareness within dream spaces and how these played out. 'Dreams are more memorable' concludes the analysis by exploring the realism commonly associated with dreams since NDEs and events and the ensuing influence on the emotional well-being of the sample. An overview of these global and organising themes is provided in Table 2.

Table 2.

Overview of global and organising themes including examples of illustrative quotes.

Themes	Theme content	Direct quotes
<b>1. Dreams are Teachers</b>		
1.1. That's My Curriculum	After a profound event NDErs became more interested in journaling and reflecting on dreams.	<i>'I journal them and treat them like I'm in college'</i> (65-year-old-female NDEr who began journaling dreams after her NDE).
1.2. Creative Insights and Problem solving	Dreams inspired and assisted with creative waking enterprises and problems	<i>'So, I found it interesting while writing the book, I had no recollection of her adult life and she didn't tell me anything about her life. I had to find those aspects out myself'</i> (74-year-old male NDEr interacting with NDE entity in his dreams).
1.3. Introspection and Growth	Some NDErs found their dreams gave direct insights into what was happening in their lives and who they were.	<i>'I take them as a warning if I'm not behaving impeccably, that I need to change a bit, fine-tune who I am to become a better person'</i> (57-year-old female NDEr describing a view of dreams).
<b>2. Suspended Dream Time</b>		
2.1. War and Remembrance	Many NDErs experienced dreams believed to exhibit important moments from past lives.	<i>'So, this man wearing one of those big trench coats would come into my room and would just stand over me'</i> (Female NDEr who had a recurrent past life dream).
2.2. Invitations to the Future	This explores precognitive dreams confirmed shortly after awakening	<i>'I arrive at the house and all these dead people are in colour'</i> (59-year-old female's dream shortly before her best friend died).

### 3. The Conscious States of Dreaming

- 3.1. On the Threshold of Dreaming      Examines experiences containing visitations some useful for creativity and comfort while sometimes scary.      *'I woke up and there are all these people around me pulling me by the arm and saying come on, it's your time' (74-year-old male NDEr describes upsetting hypnopompic experience).*
- 3.2. On a Ride in Dreaming      Covers views and experiences of lucid dreams and how these were triggered, and activities in these dreams.      *'If I'm lucid that happens easily. As soon as I'm lucid I'm like woo hoo, I'm on a ride' (57-year-old female NDEr view of lucid dreaming).*
- 3.3. Leaving the Body      Explores traveling when dreaming and OBEs.      *'I started to like fly out to this apartment building across the river and I was looking in windows and I could see every apartment' (62-year-old female NDEr having an OBE dream).*

### 4. Dreams are More Memorable

- 4.1. So Vivid      Here, the intensity, and realism of dreams after a near-death experience is detailed.      *'I can have dreams that are so vivid, sometimes they'll stay with me for two weeks' (46-year-old female NDEr who experienced incredibly vivid dreams).*
- 4.2. Dysphoric Dreams      This organising theme covers attitudes and experiences of negative dreams.      *'I remember being quite upset by the man's body being ripped apart and it woke me up' (33-year-old female NDEr who had nightmares after her NDE).*
- 4.3. Continuing Bonds Through Dreams      Offers accounts of deceased relatives visiting in dreams.      *'I'm sure I introduced her to my daughter in a dream' (74-year-old male NDEr visited by his deceased mother in a dream).*
-

## **Dreams are Teachers**

This global theme begins with ‘that’s my curriculum’ exploring how near-death experiences initiated increased interest in recording dreams throughout the sample who when returning from NDEs recognised the changed meanings in dreams. This involved improved recall through disciplined journalling, memorising dreams, and requesting information. ‘Creative insights and problem-solving’ then highlights how by doing this, dreams further gifted participants by offering insights blocked during waking in other ways, that is, for creativity and assisting with waking issues. ‘Introspection and growth’ extends on this by looking at discovered personal insights given by dreams that when properly studied informed participants about who they truly were after returning from clinical death. Dreams provided less obvious or neglected details with remarkable clarity and were viewed as appropriate guides within an altered reality.

### ***That’s My Curriculum***

‘That’s my curriculum’ chronicles how dreams after NDEs shifted from representing nothing out of the ordinary to becoming a valuable spiritually based source of information. For most participants, this was underscored by keeping detailed diaries, which enhanced recall by preserving dreams for study to extract deeper personal and spiritual meanings. The first excerpt is from Tayla who felt the effects of an NDE influence beliefs about dreams. The excerpt starts after Tayla was asked how having a near-death experience facilitated this shift and provides an overview of beliefs and practices common throughout the sample:

I think it provided a wake-up call. It changed my conscious awareness of my dreams. I’m supposed to be taking this stuff seriously, not laughing at it. I journal them and treat them like I’m in college. A lot of it starts with I dreamt last night... Sometimes I get the message after I’ve written them down. That’s

my curriculum. I'm afraid to ask my dreams for anything as I don't want to usurp the curriculum (Tayla 65-year-old NDEr).

Tayla describes the dramatic alteration that her near-death experience had on her perceptions of dreaming. A greater depth of conscious awareness is now required as dreams have become more deserving of respect through what they can teach expressed metaphorically 'like I'm at college'. This new valuable metaphoric educational perspective is further solidified by Tayla placing dreams within a 'curriculum' that must be strictly adhered to. A central tool for this is journalling which facilitates the transfer and recall of dreams followed by their interpretation. Central to this new reverence and authority that dreams behold over Tayla's life is that she does not question what is planned for her by her dreams, and while being interviewed described this meant not specifically asking to dream of anything, implying dreams are charged with what she receives and are above her understanding.

For many participants, this more serious perspective required adhering to multiple awakenings in order to better remember and therefore harness the meanings behind dreams. Owing to the spiritual constitution of dreams extracting information went further than journalling. Unlike Tayla, most participants discussed directly appealing to dreams for specific content with this being a consistent practice after an NDE and with varying degrees of success. The next excerpt from Susan demonstrates that for her, dreams, as a non-local source, provided information regarding spirits trying to connect with her. Here, she discusses asking dreams for their names to begin this process:

So, you know, there's a thin line between life and death since my NDE. I heard a cough in my kitchen one day, and I said, 'Let me dream about this person's life'. All I need is a name, and I meditate on it So, I've got this person's name, and I've started documenting it' (Susan 59-year-old NDEr).

Susan illustrates how she understood that when wanting to know something she could go directly to her dreams as a source of information. Susan saw dreams as a passageway to specific details beyond the mortal, material world, increasing the odds of attaining knowledge not as available while awake. This represented a common view throughout the sample relating to the sensed spiritual qualities toward dreams brought on by a near-death experience and the desire and ability to connect to these more.

Perceptions of dreams radiated with multileveled value enriching participants' lives by becoming perceived as a new source of meaningful information specifically meant for them. For most participants, before being impacted by NDEs, dreams had little major significance in the lives of this group, whereas now dreams formed a central aspect of their new reality as a higher spiritual source they connected with. For Tayla, this new appreciation towards dreams as teachers within a designed program destined for her was approached with caution by not wanting to influence the content of dreams, a perspective common throughout the sample as participants understood that dreams provided novel information related to various waking dimensions. However, most participants like Susan, also appreciated they could approach dreams directly for information, and dreams sometimes responded. Another central tool incorporated by most in the sample that represented the esteem and value associated with dreams was active journaling which preserved the provided information. This allowed the application of details in meaningful and practical ways during waking life.

### ***Creative Insights and Problem-Solving***

Participants noted how their NDE inspired greater interest in dreams, with many reporting that their dreams assisted with 'creative insights and problem-solving'. Some dreams featured characters who triggered creative tasks pursued during waking and further supported participants in dreams as this creativity unfolded. Dreams were described as a tool that helped participants navigate new projects until their completion and explore personal

issues, in some cases, triggered by this event. Participants described how their dreams provided ‘creative insights and problem-solving’ once their lives had become defined by a new creative sense of purpose or serious barriers via their NDE.

For some participants, dreams featured information for creativity when life became more stressful or when others required help. For example, some described how their dream characters could motivate them to resourcefully respond to their struggles by connecting with them in dreams. For one, creativity was a collaborative effort with a dream character conducted within and outside dreams to understand the dream character. The first excerpt represents the clearest example of dreams generating creativity. During Basil’s NDE in 2020, he had a vision of a deceased ex-college girlfriend, Zaide, whom he had not seen in 50 years. Shortly after, Basil’s dreams set the stage for a continued reunion. Zaide soon suggested that Basil write her biography regarding her life struggles. The excerpt starts with Basil outlining what learning about Zaide’s life involved:

She never told me those aspects in my dreams. I had to find those out myself, although she seemed to give me hints in my dreams where I should look for answers. During the period I was writing the book, I had no recollection of her adult life, she didn’t tell me anything (Basil, age 74 years).

Basil recounts how his NDE with Zaide inspired the opportunity for a creative project between the two through the dream space. This focused on Zaide’s life experiences that Basil did not know as they hadn’t seen each other for years. While initiated by Zaide in a dream; she did not provide any life details to help with this project in the following dreams. Rather, clues or fragments are provided directing Basil on where to go to learn about her life. The inference is made that Basil had to develop her character for the book by learning about the events of her life during the day.

While giving pointers on where to inquire when writing their book, within dreams, Zaide also monitored what Basil found and wrote during waking. Looking back on writing the book, he mentioned how it was a project that consumed him:

We were discussing how the book should be written, and what should be included. The next night, I would dream again, and she would say ‘yes that’s the way that happened, what you wrote yesterday, or no that isn’t what happened, but this is how it should be’.

This added detail of Zaide’s creative contribution suggests that after researching and writing during the day, Basil would become caught up in a dream cycle involving Zaide who verified what he had written and corrected mistakes until the completion of their book. Through this, it is further cemented that she largely withholds more technical biographical information from Basil who is responsible for gathering these biographical aspects.

Most participants reported that dreams consistently provided answers to waking problems. Sometimes content once recorded could also be creatively altered to help make sense of issues. The next excerpt features Leonore, who after her NDE triggered by a blood clot, was diagnosed with PTSD. At the advice of a therapist, she documented her own dreams and found solace in reading back through them and creatively used certain language, such as song lyrics to give meaning and make sense of her health issue. The excerpt begins with Leonore discussing how she does this:

Memories, the past, song lyrics. If I listen to a song, I’m dreaming that I’ve heard and wake up with, it’s quite often dreams don’t make sense. But when I look at it and play around with words, language, and numbers and actually stop and think about it can relate to how I’m feeling (Leonore, 43-year-old NDEr).

In this way, Leonore uses language existing from other creative formats within dreams that on the surface seem less meaningful given her situation. However, once reflecting on the dream, meaning is creatively applied to Leonore's health condition giving her greater insight into how she feels. Dreams, as this illustrates had utility when intentionally altered for personal use by exploring one's mental state when confronting waking health issues and in this respect could assist with their management.

In summary, owing to the subjective impact of returning from the threshold of death, dreams initiated and supported creativity and problem resolution. In some cases, as depicted by Basil, dream characters inspired and assisted creativity but dreams also allowed for interactions within their confines, including with an NDE entity. In this sense, the inspiration provided by dreams developed into waking creative priorities and concerns, however, dreams seldom offered more than participants required and further activities. Specific information in dreams was meaningfully utilised after being altered to relate to personal issues. This provided a creative outlet for achieving insights into and managing psychological issues triggered after this event. Exploring dreams further contributed to other insights such as building a stronger character within a post-NDE reality.

### ***Introspection and Growth***

The theme 'introspection and growth' was constructed to represent how participants used dreams for self-reflection and personal development. Aspects of personality reportedly hidden while awake were easier to identify when examining dream characters and narratives and provided insights into an individual and interpersonal identity. Most participants' dreams responded in kind to this identity project, being responsive and withdrawing when neglected at certain timeframes. The first excerpt is an apt example of dreams becoming tapped as a resource for what was previously unexamined beneath the surface. Ariel grew up

disconnected from who she was and questioned why she was told she had to return during her NDE. Shortly after, she became committed to studying her dreams and found out why:

I realised that the more I would read through my dreams as a tool for growth the more the dreams would tell me. So, it was almost like once the dreams realised, I was paying attention they started giving me more and it became my primary focus to stay connected to my inner self through these dreams (Ariel, aged 62 years).

Ariel articulates the value of dreams in reconnecting participants like herself to who they were before an NDE. She describes how her dreams were consciously receptive and willing to reciprocate the time spent seeking to understand herself through them. As she states here, this became her central goal after her NDE, later noting how this dedication was a good investment as it linked her to her previously unexplored Jewish heritage providing her life with greater meaning and answering why she had to return to it. This reconnection extended to a collective cultural framework, further cementing her place in the world by creating a sense of belonging through Judaism.

This ability of dreams to reveal personal and interpersonal traits was a remarkable source of strength and perseverance for participants after returning from the threshold of death. In the next excerpt, Ariel reflects on what happened when she stopped studying her dreams later in life:

For many years I didn't remember dreams at all, and I'm just starting to remember them again. I kind of, at a certain point in my 20s, lost touch with all this, and I stopped writing down the dreams and I kind of fell out of touch with myself. Now I'm in my 60s, I'm just beginning to come back to that. I never felt as connected as I did when I was studying those dreams.

This description represents here another common thread among participants like Ariel after their NDEs as insights personal or otherwise halted when interest and commitment waned. However, most of the sample knew they could return to their dreams if desired or when invoking interest. Ariel's recent turn back to her dreams for 'introspection and growth' after a 34-year gap testifies to how important dreams were in retrospect for personal insights.

Relatedly, some participants found that paying closer attention to dreams enhanced their sense of awareness and daily direction by reminding them they were going off course. Like Ariel, Luna's dreams helped reconnect personal aspects neglected throughout waking life. For example, she describes the necessity of studying dreams to develop and reinforce who she truly is:

They direct my behaviour. I can take them as a warning if I'm not behaving impeccably, that I need to change and fine-tune who I am to become a better person if I'm subconsciously acting out badly. If you're all over the place you can pick out places like jealousy and do some shadow work on this (Luna).

Luna describes how dreams guide her by projecting important personal qualities easily neglected during waking. She considers dreams more confronting regarding her behaviour as these can make her more aware when she is in danger of deviating from who she is. Luna then works on these self-defining aspects to become more whole. These types of experiences were also described by other participants and a belief that dreams since NDEs served a purpose of looking out for their best interests, and helping them make positive inroads toward 'introspection and growth'.

For most participants, the quantity of biographical information received through dreams for integration was manageable, accommodating the present while gradually building resilience for the future. The next excerpt comes from Tayla who like Ariel and Luna when

interviewed mentioned the restorative qualities of dreams and how she could rely on these to affirm and direct her life. In the excerpt, Tayla describes the process of receiving information from dreams over time and what this means:

I feel like I get a download from a master computer every night, where I get the information, I'm supposed to get downloaded, whatever glitches need to be repaired to help me face the next day, week, or month, and remind me of who I am (Tayla).

Like Ariel and Luna, Tayla discovered dreams contained deeper personal meanings that when harnessed, were an ideal source of self-becoming. Dreams were described as helping heal and replenish what was depleted throughout Tayla's waking life, recharging her enough to face this life by also gradually building greater tenacity and resilience. This was done in a way that could be processed, never going beyond her capabilities.

In summary, this theme illustrates in the aftermath of the participants' NDEs, their rigorous attention to the study of dreams appeared to enable novel insights into idiographic characteristics regarding personality, and virtues underpinning identities. For Ariel, this went further as once upon appreciating her Jewish heritage through dreams, she connected to who she was individually and interpersonally. In response to understanding their place in the world, dreams were described as responsive to participants' desire to learn about who they truly were by consistently providing information that maximised this important life goal. Compared to waking life, dreams reportedly shined a unique inner spotlight, better revealing their purpose through these personal aspects, which before NDEs were not given as serious contemplation. Furthermore, dream narratives were considered to provide a moral compass, cautioning some participants when drifting from this course by directly revealing where work was needed regarding self-improvement. This was appreciated momentarily and later depending on the situation as greater meaning and resilience resulted in their lives.

## **Suspended Dream Time**

‘Suspended dream time’ is a theme constructed to represent participants' descriptions of how perceptions of time and space became altered within dreaming. This is proved via two subthemes. Firstly, ‘War and Remembrance’ investigated how some participants suspected or were certain at points after NDEs that they experienced dreams that showed glimpses of themselves in past incarnations. While certain participants now questioned the origin of the contents of these dreams, distinguishing and consistent features were captured that separated these from other dreams.

Secondly, the sub-theme ‘Invitations to the Future’ shifts the focus of time to precognitive dreaming to a space where some participants reported that who they dreamt about and what they dreamt was symbolic and given meaning due to outcomes shortly after these dreams. The ways precognitive dreams used colours to convey what was being foretold had idiographic and converging importance with death being another central aspect.

### ***War and Remembrance***

Many participants reported finding few problems when assigning waking biographical, interpersonal, and embodied meanings to their dreams. The origin of some dreams, however, could be more anomalous, yet still highly meaningful. A theme germinated around certain dreams as containers of tragic and joyous moments from past lives. ‘War and remembrance’ bore witness to how participants believed they had lived during other times, with death and feelings of familiarity often being remembered in these dreams. Sometimes, these dreams went back in time over centuries. The next excerpt features Susan who recounts a dream she had when younger. In this dream, she saw herself as a German woman living in 1740:

I dreamt I was a huge German woman in the past. I was in her body. It was insane, and I watched my children get murdered. I know I was her, and I know those people. They're not my people; I don't know them (Susan).

Susan describes being alive in another body, location, and historical space. She is adamant that she was the person in this dream witnessing her 'children get murdered' and senses a familiarity with the people in the dream but bluntly disconnects herself from this group. This comparison between the contemporary self and dream character was one factor used to determine if participants saw dreams as representative of a past life.

While Susan felt a disconnection between these times, sometimes this was not so easy, as past lives entering this life through dreams for some held deeper resonance within the present. This could involve inheriting the trauma of the dream's climax, reenacted during different life stages becoming resolved when learning the source of the dream. The next excerpt represents the traumatic themes associated with past life dreams and how these could be felt in the present. Ava had her NDE when she was two and since the age of six, a recurrent dream caused her many issues which she related to her NDE. As a child, she would cry a lot and was terrified of death, confusing and frustrating her parents as they had no explanation for this. The excerpt begins with Ava describing a shadow figure dressed in military attire entering her room:

So, this man wearing one of those big trench coats would come into my room and would stand over me and just watch me for a little bit. Then he would lift a gun to my head. It was long enough to be terrifying, and I would talk myself into rolling over and reach the gun and it would go off (Ava).

Ava describes the feelings of dread and paralysis she experiences in the dream. After producing the strength to confront the dream character, the dream ends with her death implied by the firing of the gun. In her early 20s, Ava experienced a sense of Déjà vu after meeting a

man and after describing the dream to him, the man's countenance turned white. They determined that he had murdered Ava in the dream, as he had met others he had murdered in his past life. This and its placement around the Second World War allowed Ava to resolve the issues stemming from this dream.

'War and remembrance' also resonated with a participant who inherited the same heritage. The next excerpt is from Ariel whose central motivation behind recording dreams was outlined in 'introspection and growth'. In total, Ariel reported three dreams she suspected at one time, or another echoed back to past lives. Like Ava, the excerpt shows Ariel in a life-threatening situation, however, her dream was highly personal as it was more specifically related to the Holocaust:

There were a few men, and they were pointing their guns at me. They were asking me questions and I refused to answer them. Finally, they said if you don't answer our questions, we're going to have to shoot you. I still didn't answer, and they shot me (Ariel).

Similar to Ava, Ariel resisted military figures in her dream, with both of their dreams ending with their executions, however, Ariel's dream is in the context of an interrogation. Unlike Ava, Ariel did not have this dream confirmed by others, however, she had other dreams based around the same period one of which she confirmed. In Ariel's second past life dream, she was part of an organisation around the same time and place:

I was with a group of men, we were all wearing brown suits and hats and sitting around a big table, kind of hanging out. I was aware of what my name was, and it was the city of Bremen Germany. It was just a bunch of people having a good time.

Ariel's description mentions that she knew her name and location and like in her other dream and today, she was Jewish. After receiving this name, she later researched this group

on a website with the members listed and identified herself. The meaning Ariel assigns to the dream is embedded within its social value as enjoyable, characterised by a shared identity between the men and herself. In Ariel's final past life dream, she was a young man in his twenties who witnessed the devastation of a historical bombing: 'I had blond hair and a fair complexion, and I was in Dresden, and it had just been bombed, and I was looking through the devastation and just feeling shocked'.

For certain participants, past life memories in dreams represented a shift away from the destructive and barren scenes of war, and toward hope for the future. The next excerpt is from Luna, who like Ariel, discussed how she felt more linked to her dreams. While being interviewed, she mentioned an affinity with Russia and sometimes spoke and watched television in Russian when dreaming. In a past life dream, Luna and her sister found themselves in an abandoned city in Russia shortly after the Second World War. The excerpt begins with Luna describing their desperate situation:

All we had left was a musical instrument. We were homeless, we didn't have any money or food, and we were in a city almost empty of people. A motorcyclist came along, he was riding one of those post-war motorcycles and my sister gave the instrument to the person on the motorcycle, and he took me to live with them and I became an apprentice (Luna).

Luna discusses how a dream revealed the past life moment of improved circumstances following the war depicted within a barren Russian city where she and her sister possessed nothing but an instrument. While separated from her sister this allowed her to build a new life illustrated by becoming an apprentice instrument maker. Luna stated afterwards that the dream represented moving from despair to hope, something she aligned with a higher purpose in her life.

There are degrees of current resonance with past life selves in these dreams and except for Luna, these participants lived in Germany. Luna felt affiliated with her past life through her familiarity with Russian dream content giving the impression this was due to a past life in Russia. Another meaning she prescribed to the dream is why she is here now. Susan saw herself as German the furthest back in time and in her current life, she felt the greatest detachment. Ava, like Susan felt no ethnic affiliation to her past life. However, not knowing the source of the dream, its recurrence, and being so young, she experienced the most embodied distress through this type of dream, which only resolved upon meeting her perceived killer in this life thereby establishing the source of the dream. Ariel's dream when she was a German resonates with the time of her other past life dreams when she was Jewish, and one is associated with the war. This makes these dreams highly relatable to some participants' contemporary biographies and each other.

The perception of dreams as containing memories of past lives was contingent on the time in biographical histories as beliefs about the nature and origin of these dreams shifted. Personal and interpersonal factors aligned with specific historical settings within these dreams to help participants identify them as past lives.

### ***Invitations to the Future***

While participants reported that the deceased appeared to them in their dreams, this was usually after they had died as meanings were more based on the past and present. 'Invitations to the Future' examined dreams at another extrasensory level as aspects relating to imminent death were featured in these dreams because death is inevitable. Some discussed entering ceremonial gatherings that hinted at death themes which were confirmed shortly upon awakening. Furthermore, colours, who wore them, and how, underscored the meanings of what these dreams foretold, requiring interpretation based on idiographic ideas. Explicitly,

lighter colours were described as representing background characters and themes, and brighter colours demonstrated central characters and details.

The first excerpt provides a strong example of a dream premonition featuring special details contributing to its realisation. When Luna dreamt, clothing and colours had personal and spiritual significance, revealing important information about characters and settings meaning it was essential to pay careful attention. The excerpt begins with Luna discussing how one night in a dream she arrived at an important event featuring the royal family when the Queen was dying:

Everyone was dressed up quite formally and my sister and I are looking at our tickets. The royal family came down a procession through the aisle in between everybody down at the ground level. It was a huge line of beings from white to grey. You can sort of see their clothing but there are more colours of white and grey, so this was the royal family. They were elegant and serious and the next thing, the Queen came marching down through the crowds, and she was wearing this beautiful blue dress with silver sparkles and her handbag was yellow. I remember looking down and thinking, that's not the Queen that's just a hologram. I know it was the Queen I saw before but this just doesn't seem real (Luna).

Luna discusses a dream where she and her sister arrive to see the royal family in a ceremony. While she seems to be standing from some distance, she can still make out the colours of the royals and what the Queen is wearing. Luna describes the Queen as standing out through her sparkling blue dress. She later stated how this indicates the soul group one belongs to and their solar plexus which, according to Luna, was strong for the Queen during the dream. Upon awakening from this dream, Luna was immediately informed by her partner that the Queen had just died which is Luna prescribed this as a precognitive dream.

Sometimes precognitive dreams of death were more personal and referred to the celebration of life. For example, since her NDE, Susan reported many dreams of people and pets dying. She met her best friend 10 years earlier and later received a premonition relating to death during a dreaming. Like Luna, the dream starts with Susan walking into a social gathering, but this is at her best friend's home:

I arrive at the house, and all these dead people are in colour. She's sitting in bed, and everyone's got a gift, and I'm in black and white, and she's sitting there talking to a priest and laughing and I'm sitting there with all the people in colour. They asked me, where's your gift? I said, what gift? It's her gift day. Carmin Maranda was there, and I went to the back and all the people who were alive in my life were in black and white (Susan).

Susan's dream illustrates a symbolic gathering at her best friend's home where she recognises the deceased appearing in colour. In the dream, she uses this identifier to distinguish them from the living who like herself are in black and white. This connected with a peculiarity she mentioned during interviewing that in her dreams she could see things paradoxically like her best friend's 'gift day' being her funeral. While her best friend was sitting up and laughing in the dream, Susan would reveal she died unexpectedly two days later. The dream's precognitive nature was revealed later at the best friend's home as the daughter came in and said, 'I want everybody at the funeral to be wearing colours, like Carmin Miranda'.

These precognitive dreams revolve around themes of death presented indirectly in dreams. For Luna, this involved seeing a well-known figure at a ceremony symbolising her last moments, whereas, for Susan, the dream foretold how she was expected to dress at her best friend's funeral. Both described the importance of colours when separating the living from the deceased. Brighter colours represent and provide information about the main dream

characters while lighter colours represent peripheral dream figures, thereby, creating a threshold between life and death. For Luna, colours and clothing had greater meanings for the central dream characters, whereas, for Susan, the colourful clothing in the dreams was expected later at the funeral during waking for those who had appeared black and white in her dream. In both dreams, the use of these colours contributes towards the deceased appearing lively and vibrant despite being on the threshold of death.

### **The Conscious States of Dreaming**

‘The conscious states of dreaming’ was constructed to reflect the participants’ reports of high levels of mental activity experienced during their dream states and their engagement within spaces triggered by dreams. The first sub-theme, ‘On the threshold of dreaming’ explores the presence of voices and imagery during the hypnogogic and hypnopompic states that were both appreciated and upsetting for participants. These dream states allowed NDE entities to channel their traits through participants but when unfamiliar were met with terror. The second sub-theme ‘On a ride in dreaming’ then summarises NDE-motivated attitudes and experiences toward lucid dreaming, where participants gained awareness and control within the dream environment and applied this for personal and interpersonal ends. Finally, the subtheme, ‘Leaving the body,’ explores exiting the body in dreams, and dreams as a pathway to other realms redefining dream consciousness, settings, and interactions between the mind and the body.

#### ***On the Threshold of Dreaming***

‘On the threshold of dreaming’ embodies audio and visual material within transitional states. These states further cemented beliefs in the disembodied existence of the soul. The desire to be reminded of NDEs was often met with unfulfilled longing throughout the sample. Transitional dream states combining dreaming with waking opened the door slightly wider to further communication with NDE entities who were close to some participants when alive

using this time to direct, encourage, and channel who they were through them. In these cases, entities, when alive, were revered which increased in meaning after NDEs and found greater expression within these transitional dream states. Accordingly, these episodes connected the near-death, dreaming, and waking states as participants and these entities connected.

The first excerpt explores the inheritance of certain qualities from NDE entities during an emotional time for Leonore since her NDE. When interviewed she explained that transitional states contained the most interesting material. During her NDE, she experienced a visit from her great-grandfather whom she knew as a child. The excerpt was chosen as an example of the special authority assigned to NDE entities that found expression ‘on the threshold of dreaming’. It begins with Leonore discussing another important visit when struggling to cope one night with her PTSD upon transitioning to sleep. This is followed by Leonore placing meaning on what her great-grandfather said within the context of his life and NDE:

I had a very interesting conversation with my great-grandfather one night during a PTSD flare-up when our souls connected. He said, look this happens, this is what you’ve got, you’re just going to have to get on with it. You know, everybody’s got something...

He was a very pragmatic man and that kind of backed me up and I believe in that kind of spiritual thing because I’ve experienced that kind of thing. They sent the right one, they could not have sent anyone else to have talked to me that I would have listened to. But I feel like he visited me that night a year ago (Leonore).

Leonore indicates that at a critical time during a transitional dream state, her deceased great-grandfather provided words of comfort. She recalls how pragmatic he was when alive and believes he channels this quality as they become spiritually embodied as one within this

state. Considerable spiritual meaning is placed on this experience derived from her exposure to a spiritual dimension, where they met again. This with her affiliation with him when he was alive were the central reasons behind his unique status at this time, with Leonore believing that he alone was sent from an omniscient space using the dream dimension to help her during this dark time.

Transitional states featured suggestions and guidance for another participant regarding a new waking task. For example, Basil told of a similar experience to Leonore's in which his NDE entity spoke to him while 'on the threshold of dreaming'. A self-described 'science person' this state allowed him and his NDE entity to work together toward a goal. The next excerpt recounts what occurred one night after Basil slipped back into a dream state:

I kind of fell back to sleep, in that quasi-dream state, you know, I'm half awake. And you know, she says, why don't you write a poem? I can't write poetry, I don't even like writing. And she says, well, you know, I'll help you out with that. So, I thought about it, what I was going to write, and I got up and went to the computer and in 20 minutes I wrote the prologue to the book. That's another thing that amazed me (Basil).

Basil describes the moment his NDE entity communicated with him while slipping into a dreaming state. Here, she suggests he write a poem; something initially met with resistance as he didn't know how. This was resolved once Zaide offered to assist him in this task. Like Leonore's transitional experience with her great-grandfather, the presence of NDE entities in these states enhanced confidence with uncertainty, with participants going beyond their limitations.

For other participants, entities when unrecognisable and visual were terrifying, leaving negative embodied and emotional reminders of their presence. The next excerpt is from Jimmy who articulates these features from a waking experience from years earlier that

was still firmly ingrained in his memory. It begins with him transitioning to find himself surrounded by several visitors:

They were pulling at my arms and saying, ‘come on, you’ve got to come with us’. I said no, and I looked across and saw my daughter and wife sleeping and I yelled at the top of my voice no, and they let go. The marks from where they were pulling me were incredible (Jimmy, 74-year-old NDEr).

Jimmy describes the horror of waking to see entities before him pulling on his arms and ordering him to go with them. He later stated the fear this induced, mainly related to not seeing his family again as implied by how he looks over at them during this experience. To Jimmy’s relief, they eventually leave him alone once he yells for them to do so, which is the only control he possesses during the experience. The realism for Jimmy is increased by the physical marks created by these entities during this experience viewed within the dream.

According to these reports of transitional dream states, the space between waking to dreaming was considered by participants to be optimal for entities from NDEs to communicate audibly. Such experiences were recalled as significant, pivotal dream-like experiences and were made possible by an NDE that made these entities relevant again in the lives of two participants. These auditory engagements helped participants innovate by building confidence through guidance as deeper connections were possible and these participants could communicate and work with these entities. Characteristics, advice, and ideas were passed on, giving these participants new perspectives on their waking circumstances. Alternatively, transitioning from dreams to waking for participants like Jimmy included visual and physical aspects in the form of unfamiliar entities that were threatening by harming the body and aimed to remove a participant from his family. These embodied and disembodied aspects were malevolent and ambiguous, and through invoking distress, created unanswered questions relating to their source.

### *On a Ride in Dreaming*

The theme, 'on a ride in dreaming' explores consciousness and its consequences once the dream state is attained. Many participants expressed how the lucidity of being in a subjective near-death state afterward led to an interest in lucidity in dreaming. Some participants became aware when dreaming and executed gravity-defying movements, however, mundane content combined with poor control, and the extensive effort required to have lucid dreams reduced the impact of lucid dreams. The next excerpt was selected as an example of this predicament and involves Sophia who discussed an interest in lucid dreaming immediately after her NDE two years earlier. Here, she outlines her two lucid dreams, the first was spontaneously triggered, and the second was induced:

My first one was when I was sick one night, and I think it was just a product of being sick. I remember that I was flying around a cave and then noticing that I was flying around a cave and just taking control of that, but I noticed too much and then I woke up.

The second one was when I was more aware of things. It wasn't interesting. I remember it was like in a neighbourhood, and I remember the point where I became lucid. I went into a house, and I was able to navigate my way through, but I had poor control. I felt like a baby, I didn't manage to hold on to it (Sophia 33-year-old recent NDEr).

Sophia summarises her brief experiences with lucid dreaming, providing an overall sense that these were characterised by inexperience. In the first lucid dream, she describes how she could fly within the confines of the dream space. Once aware, this inexperience became an issue as the dream setting was too stimulating, causing her to awaken. Despite learning from this first lucid dream and having slightly more control in the second lucid dream, it was less entertaining and more mundane with Sophia again eventually becoming

distracted and awakening. She later stated abandoning further lucid dreaming viewing it as not worth the effort.

Other participants like Tayla, also expressed an increased interest in lucid dreaming but never had them. Leonore and Ariel also experienced lucid dreams and concurred with regarding the limitations behind lucid dreaming. In Leonore's case, lucid dreams resulted from an overactive brain when her PTSD was triggered, and little control was present. Ariel taught herself how to have lucid dreams but derived nothing novel from them.

The entertainment value of lucid dreaming sampled by Sophia was experienced more with greater control; however, this could distract from other valuable dream qualities impacted by the subjective near-death state. The next excerpt from Luna, who experienced about two lucid dreams a month, suggests that lucid dreaming when maintained was a source of recreation making it possible to explore the dream. However, as she explains this came with trade-offs as it distracted from serious business:

Usually, lucid dreams are not that useful to me because they usually get so exciting and all I want to do is just go flying and visit people. In the dream, I'm always seeking to know and learn more and if I'm not lucid that happens easily, and as soon as I'm lucid, I'm like, 'Woo Hoo, I'm on a ride'. I just want to zoom up into the air and walk through walls and do all that sort of thing. When I want information, I'm better when I'm not in charge (Luna).

Luna describes the possibilities attainable by lucid dreams when higher control is present and enjoys being able to explore the dream space. However, this involves the trade-off of the central purpose of learning within dreams, with enjoyment within the dream space disrupting this goal that requires receiving what dreams intend for Luna.

The reports throughout the present participants implied once NDEs initiated an interest in dreaming, this extended to the desire to become aware and act within this

environment. Sophia described that this was motivated by the ability to fly when learning this was possible during a lucid dream. However, for her, the results in the form of mundane content and poor control produce an evaluation of lucid dreams as not worth the effort, something often mirrored by others in the study. Luna's lucid dreams were the exception in the sample as the control she exercised within dreams allowed her to fly and interact with others with greater ease. However, this was not assessed as entirely positive as she also reported how lucid dreams could distract from more important opportunities within this dimension as for Luna other types of dreams were assigned to a higher plane.

### ***Leaving the Body***

Some participants also maintained conscious awareness when dreams triggered a mental state transcending the body while visiting locations and dimensions beyond the boundaries of physical and usual dream spaces. Despite disembodied consciousness, upon return these dreams fulfilled the functions of greater mind-body unity, insights, and enjoyment, further evolving participants toward oneness. The first excerpt explores this mind-body connection underpinning OBEs. Ariel's OBE dreams were difficult to articulate but felt natural rather than forced. The excerpt begins just after Ariel leaves her body and finds herself exploring a nearby physical space:

I was going from apartment to apartment to see what all the people were doing there. I was at the point where I had a choice like, should I start to see what they're doing. I thought it was none of my business, so I decided to go back to my body.

It was kind of pleasurable. I don't know how to describe it, but it was like my body needed it. It's an organic process. I didn't feel like, 'OK, let's go do this'. It was a way of reconnecting (Ariel).

Ariel's dream involves flying around a physical space containing an urban setting within the waking world. She is unprepared and seeing into other people's apartments, decides, not wanting to impose, to return to her body. Ariel further notes that this was not something she consciously planned to do, rather, it was her body that naturally knew when this should happen. As she suggests, the experience was physical, allowing greater alignment between her mind and body to achieve wholeness. These bizarre, and positive physically induced OBEs were how these were experienced.

Leaving the body was valuable for developing greater unity, however, it went beyond being a mere organic process that explored known physical spaces outside of dreams. Traveling through dream realities inaccessible during waking was possible and for one participant could be acted on. The next excerpt explores this notion of the body going through other dream spaces requiring the development of conscious focus in dreams to travel with greater movement and within higher dream areas. When interviewed, Luna explained entering portals located close by within astral dreams involving universes accessed or assembled according to vibration levels. The excerpt has Luna discussing an important dream using the metaphor of an onion to describe how these universes are built and accessed:

So, you've got the many layers of the onion, and you've got the cells, and each cell of the onion was like a different universe, and you can move through the skins, or you can move through the cells, and each cell was like a different universe that you could dial up, that you could want, or vibrate, so when you're vibrating at a particular level you can go into what you desire. I was in communication with an oversoul, so I was speaking out loud what I wanted to see and then it would happen. I was pushing my boundaries and trying to experience as much as I could (Luna).

Luna explores the possibilities presented through this astral dream that demonstrates her travels in dreaming where she creates different spaces. This occurs through her dialling up these universes which during the interview she explained is metaphoric for focusing her energy on what she desires to see and experience within the dream space. These vibrations or frequencies determine who one is within the onion, the reality they create, and interpersonal connections as souls are joined to others in these dimensions as represented by the onion's layers who like themselves, function at the same levels of frequencies.

Leaving the body allowed travel which offered various opportunities as this took place inside and outside of dreams. OBE dreams described by Ariel were highly disembodied and embodied experiences as awareness and travel were achievable followed by greater unity between mind and body upon reconnection. These were naturally induced by the body rather than conscious will, however, once the mind was released, returning to the body was determined through conscious volition. Contrary to this, Luna's astral dreams were often preserved more within the dream space. These dreams transported her to different places, or layers made possible through focused will created in dreams. To summarise the global theme, most participants reported higher awareness within dream states and experienced these as more engaging. The thematic analysis will now conclude with the final global theme.

### **Dreams are More Memorable**

This global theme explores the visual and emotional intensity experienced within dreams. The first subtheme, 'so vivid' covers the noteworthy realism and intensity depicted in dreams and compares this to waking. This could have consequences for 'dysphoric dreams' which discuss beliefs, perceptions, and experiences of threatening dreams and the mitigating emotional effects of the aftermath of the traumatic and subjective states. NDE-based attitudinal shifts altered assessments of aggressive dream content in positive and negative ways. Finally, the subtheme 'continuing bonds in dreams' describes a move away from

threats and honours participants to interact with deceased loved ones in dreams, responding to unresolved issues and regrets formulated since death. These dreams were reported as important and allowed participants to emotionally move forward in their respective, personal ways by responding to emotional wounds and grievances.

### *So Vivid*

‘So vivid’ pertains to how participants noted the unusually realistic nature of dreams recalled following NDEs. Beforehand, they spoke of how nothing stood out about dreams or their resemblance to waking or general meaning. This organising theme explores the decreased line between dream settings and characters compared to a neo-NDE reality. In this way, dream imagery became incredibly vivid, increasing the likelihood of influencing waking decisions and actions while sometimes being difficult to articulate. With enhanced realism, dreams received premium importance and often referred to important past biographical settings and people. Most participants experienced dreams that sometimes took them back to times thought forgotten. The first excerpt represents this tendency of past waking spaces to be accurately expressed in dreams. Basil, who shortly after his NDE relived his college experiences with his deceased past girlfriend within dreams enjoyed walking around their old college campus and having conversations exactly like they had when interacting in their youth. In the excerpt, Basil describes the realism of the past setting where they last interacted in life:

The dreams with Zaide have always been clear and distinct, not as bright as the NDE. We used to walk around the campus a lot and sit on a favourite bench made of granite. Sometimes during the spring evenings, it was kind of cold, that’s how realistic it was. So, the dreams were very vivid, accurate, and clear (Basil).

Basil illustrates how an NDE made his dreams resemble waking, as these for a while became realistic and accurately transported him and Zaide back to a location where they last knew each other years before. Before his NDE, Basil noted during his interview that he would dream 'not very often, maybe once every two weeks'. Importantly, while highly vivid, he notes that the dreams were not comparable in clarity to his NDE meaning he can tell them apart. This dream realism extended to sitting on a popular bench on a similar level to waking as it was experienced through the body adding to its feeling of tangibility and being present in this time while set in the past. While interviewed, Basil stated that Zaide looked just like she had when she was younger and within dreams, and early on their conversations were repeated verbatim, only taking on new content later.

The participants reported how vivid dreams sometimes made it difficult to escape upon awakening, leading to confusion as portrayed in the next excerpt from Amelia, who experienced dreams 'so vivid' that these could be problematic during waking. The excerpt has her explaining how she could get caught up in dreams and the confusion this created:

I can have dreams that are so vivid, sometimes they'll stay with me for two weeks. They're so vivid I feel like it's happened. Quite often I can get reality mixed up with my dream life because of this and people get confused and I'm like 'No, but it really happened' (Amelia, 46-year-old NDEr).

Amelia explains the problems sometimes associated with vivid dreams due to difficulties with leaving these behind upon transitioning back to waking. The impact was so intense that it could last for days, making it difficult to separate what happened in dreams from waking events until others challenged her version of these events. Generally, this was related to mundane events with little serious consequences.

For most of the sample, dream imagery since having an NDE was often more realistic, especially when content was directly relatable to NDEs, as was the case with Zaide triggering

the college setting depicted in Basil's dreams when they last interacted in life. The realism and intensity of dreams after near-death experiences often mirrored scenes of known spaces accurately to the point that sometimes went beyond mere vision as these could be physically experienced. For Basil's dreams, the lines between these and waking while thin could be distinguished. Some participants like Amelia experienced dreams so 'so vivid' that these were difficult to separate from waking and eventually blended into an conscious state until challenged by others.

### *Dysphoric Dreams*

Interpretation of threatening dream imagery could be complicated within 'dysphoric dreams'. These explored participants' experiences, perceptions, and reactions to what were considered nightmares. Most participants spoke of feeling detached from negativity when dreaming or did not have nightmares. The positive emotions tied to NDEs underscored a re-evaluation of threatening dream content for others. The next excerpt comes from Tayla whose new spiritual perspective extended into dreams as destructive content was assessed within the context of her post NDE life. These included believing that the Hindu goddess Shiva now protected her and would appear in dreams when this was required. The excerpt begins with Tayla explaining a deeply metaphoric dream she believed was sent by the deity followed by the meaning she assigns to the dream:

I was in a double-decker bus, and I was in the top with my family, and here comes this big tornado. I told my family, quick, huddle together in the centre, and here's a white sheet we can cover ourselves with.

I'm like who gets covered in white sheets, dead people?

It's like Shiva saying, 'get ready', I'm going to mess things up. But I don't have much of that fear element, that's another thing that's happened. You can't have something new without the destruction of the old (Tayla).

Tayla describes a dream in which a tornado is closing in on her and her family within a confined space. However, things are more complicated as by interpreting metaphors, guided by new waking beliefs, she implicates the goddess Shiva in this dream who through this dream is telling Tayla to prepare for change. In other words, the dream now has significant spiritual meaning as this deity seeks to guide Tayla. This does not scare her, as propagated by the NDE, rather, her position is based on the dream forecasting a natural aspect of life, in that it is fluid and requires moving away from the past into a new horizon, rather than being threatening.

While spiritual transformations could alter interpretations of threats following NDEs; traumatic content from accidents combined with negative visual memories at this time also underpinned reactions to ‘dysphoric dreams’. For one participant, difficulties making sense of this event limited positive attitudes when defining grotesque content within dreams. This was articulated in the next excerpt from Sophia who described the setting of her near-death experience as ‘a scary dark place’ she was suddenly projected into after a horse accident broke her ribs. While the experience was mind-expanding, the ensuing disruption compelled Sophia to describe it as a ‘red-pill, blue pill’ trade-off, prompting many questions exacerbated by nightmares. In the excerpt, she recalls a nightmare reminiscent of being stuck in limbo:

There was a guy with his chest opened, having his ribs ripped apart and his heart stolen by someone invisible in another world. The weird thing was I could see both the guy being pillaged for his organs and the guy doing the pillaging from the other world, and I remember being quite upset by this man’s body being ripped apart and it woke me up (Sophia).

Sophia describes the violent imagery and progression of a dream she experienced as distressing, prompting her to awaken. This is acted out by a character being in one world and another positioned in another world harming this character. Like Tayla’s dream, Sophia is

exposed to threatening imagery, however, it is more ambiguous and removed from any meaning within a positive framework. Rather, it is interpreted how it appears and was believed to combine the traumatic accident and NDE space. Sometimes threatening content in dreams explicitly referred to the events behind these with meanings extending further throughout the participant's history.

The final excerpt from Leonore demonstrates how the contents of traumatic events were expressed in dreams even when NDEs were positive. These combined two life-threatening situations, one from childhood, and the other from the more recent near-death event:

I had a dream I was driving in a car, and a motorcyclist was ahead of me, and it crashed and flipped over his handlebars and was lying on the ground. I looked up and there was a crash 300 meters up the road ahead of me, and I heard a crash behind me. I rang an ambulance and said look, there's a crash up here, there's a crash with me, and there's a crash behind. I couldn't decide whether my crash was in the present, past, and future (Leonore).

Leonore's description was a common one within her dream experience. Like others, this dream was given meaning in a therapeutic context related to her current struggles with PTSD revolving around its traumatic content. For Leonore, confusion and destruction characterise this typical traumatic dream that emerged at different after returning from an NDE. As a result, like Sophia, dreams were highly distressing but in Leonore's case were made sense of solely through traumatic events. This is despite Leonore later stating that her NDE was the most emotionally pleasant experience in her life.

Tayla's, Sophia's, and Leonore's accounts represent the less common spectrum of threatening dream aspects present after their NDEs and associated beliefs and attitudes. Interpretations of dream imagery underpinned by altered spiritual beliefs sometimes meant

threatening dreams could be considered necessary as fear elements were replaced with positive attitudes and related to what was happening within waking life. Without this positive interpretive framework, threats within dreams could not preserve constructive outcomes relating to fearful aspects that emerged at the time of NDEs. Sophia described frequent nightmares reminding her of both her accident and subjective near-death experience, creating further barriers to how she made sense of the event. For Leonore, meanings generated from these nightmares were solely contingent on threatening content referring to accidents.

### ***Continuing Bonds Through Dreams***

Continuing with the powerful impact of certain dreams, this organising theme considers dreams' lasting positive emotional effects offered by 'continuing bonds through dreams' with deceased entities who appeared during important moments. As it was common for participants to be visited in dreams by the deceased, a prevalent theme emerged: dreams acting to bridge life with death. Accordingly, these dreams reshaped the nature of these relationships by allowing participants to continue relationships by reconnecting with the deceased. In this regard, dreams were a sympathetic space attentive to changes in life on hand to provide support. The next excerpt from Jimmy represents how dreams brought the deceased to the living during pivotal moments. It begins with him explaining the disappointment that his mother's death created for him:

I was sort of upset because my mum had passed before I got married. My wife never met my mother, and I know that having my firstborn was quite upsetting that she had no grandmother, and I'm sure I introduced her to my daughter in a dream and that sort of thing (Jimmy).

Jimmy recounts how the joyous events of his marriage and daughter's birth were somewhat spoiled by the realisation that his mother was not there to share these important times. While he does not recall the exact unfolding of the dream, it was a dream that provided

a space for his deceased mother to see her granddaughter, and through this knowledge, Jimmy received some comfort that they indeed met. This is because Jimmy's unmet waking desire, now impossible in the physical space of life was made possible in the subjective dream state. Such dreams featuring loved ones while not within NDEs, received more attention following this event as these would occur when participants wanted to share something new in their lives and resolved a longing to see loved ones again who let them know that while they were gone, they were still a presence and could continue where they left off in life.

For some participants, dreams went beyond continuing bonds by being a platform for creating new beginnings, thereby leaving strong feelings of support and resolving historical emotional issues within families. These dreams featured loved ones delivering important information. The next excerpt is from Tayla, who felt bereaved that her deceased mother was not present enough when alive. In the excerpt, Tayla discusses a dream in which her mother let her know that she would now make up for this:

My mom and I didn't have the best relationship, but my mom came to me, and she said listen; I'm going to be in the background taking care of things. She said I'm just going to be taking care of washing these dishes (Tayla).

Tayla's interpretation of this dream was highly personal and related to what she knew of her mother. The words spoken in this dream by her mother had metaphoric meanings Tayla knew how to interpret based on her upbringing. While growing up, cleaning was a way of achieving feelings of control when things were difficult which she associated with her current interpersonal situation with family and struggles. The value of the dream for Tayla in building resilience and moving forward is depicted in the next excerpt as her mother's presence in this dream was interpreted in the context of existing issues:

Then I find out my sister's been diagnosed with stage four cancer. My Mom was very pragmatic. When crisis hit, we clean house, that's the only thing we had control over. I really believe she came to me with this knowledge, to say, hey, things might get a little rough but I'm here in the background, and I'm going to do the pragmatic thing. I never felt she was a presence; I'm sorry Mom, now she's involved from the other side. My mother coming to me in this dream has been a comfort to me big time.

When describing the dream's emotional impact, Tayla expresses her conviction that this dream was powerful enough to allow her mother to let her know she would be active at a critical time. Unlike in life, she is now more supportive, as the dream simultaneously addresses Tayla's emotional wound left by her mother's distant parenting. In this way, Tayla understands that although not visible in waking her mother is still a spiritual presence who like Jimmy's mother is aware of how things unfold within Tayla's life and familial networks.

These dreams through providing an environment for continuing relationships between the living and deceased were considerably valuable for generating positive emotions in the short and long term. Uniquely vivid and emotionally powerful interpretations were prescribed to these dreams received with strong gratitude upon awakening, enhancing views of dreams as spiritual conduits. Extending on this, dreams responded to important biographical and interpersonal events like the arrival of Jimmy's daughter by providing a spiritual sense and reminder that while not here, deceased loved ones watched over participants. Similarly, as discussed by Tayla, dreams ensured participants that these entities in doing so supported them. Past wounds still carried after the death of the loved one were replaced by confidence and resilience owing to the multilevel emotional impact of these dreams. This ends the global theme of 'dreams are more memorable' where dreams replicated waking more and referred back to aspects of NDEs and the events that triggered these. Participants also paid greater

attention to the deceased in dreams which they attributed to being more aware of life after death since an NDE.

## Chapter Six: Discussion

### Changes in Dreaming

This research extended upon quantitative research conducted by Lindsay et al. (2024) regarding the multi-facet aftereffects of NDEs on dreaming. Renewed phenomenological experiences of dreaming were a fluid process where new meanings gradually developed as new understandings, beliefs, and practices about dreams emerged. Dreams were receptive to participants, helping them innovate and grow as individuals. With this, realism, positive emotions, insights, and psychic attributes characterised dreams making them memorable and promoting and reinforcing positive attitudes. Awareness and engagement in dream states sometimes generate insights, growth, and enjoyment contributing to their spiritual meanings. Furthermore, the nature of a post-NDE reality regarding the soul, time, and space, were reflected in past life dreams and precognitive dreams.

These findings generally support the interconnection of dreams with waking life concerns and preoccupations suggested by the continuity hypothesis, as a post-NDE reality based on open-mindedness, empathy, and attitudes toward death, were shown to impact dreams which in turn impacted waking life (Greyson, 2006; Schredl & Hofmann, 2003). Furthermore, NDE entities and settings significantly altered perceptions of dreams and waking activities. A phenomenologically informed thematic analysis reveals NDEs as socially contextualised as the dreams transformed by an NDE are relational, transcending, and interconnected to personal and spiritual perspectives. The continuing bonds enhanced by dreams containing the deceased have consequences for the representations and recollection of those depicted within the wider social networks of participants (Black et al., 2014; Stickgold & Walker, 2013). These included children unacquainted with the deceased and siblings impacted by serious illness.

Prior research regarding post-NDE dreaming is scant, and quantified, existing as one subjective aftereffect within wider psychic shifts or narrowly existing solely as a psychological aftereffect or reducing the relationship to the neurological mechanism of REM (Funkhouser, 2021; Kohr, 1983; Nelson et al., 2006; Sutherland, 1989). While these studies supported a relationship between NDEs and dreaming, the current study further argues that dreams, not just trauma are a key component of life in a post-NDE reality requiring further clinical understanding.

### **Dream Attitudes, Practical Utility, and Growth**

The emotional and perceptual qualities featured during NDEs restructured attitudes toward dreams as messages from a non-local source. Specifically, dreams had greater spiritual meaning mostly in non-theistic ways as participants believed dreams were consciously receptive to life's demands, motivating and guiding biographical events within a new reality. In this sense, dreams, viewed as benevolent provided trusted information participants intuitively knew they could depend on.

Within the current study, dreams took on a spiritual quality consistent with dream sanctification. This involves dreams having sacred and spiritual qualities (Phillips & Pargament, 2002). While a source of remarkable insight, this is uncommon throughout the West. Academic circles generally dismiss dreams as deriving from a non-local source despite findings on existing benefits this has for personal growth, especially in the wake of traumatic events (Paquette, 2018; Phillips & Pargament, 2002; Weiten, 2013). Accordingly, the further one is removed from believing dreams are spiritual messages, the less attention dreams receive. Given that most of the sample were spiritual after their NDE this is no surprise as increased spirituality enhances perceptions that dreams derive from a non-local source, providing novel information less attainable during waking (Schredl & Bulkeley, 2019). Based on biblical references to dreams, religion can facilitate this belief to a smaller extent but

religion was only relevant for one participant regarding dreams. Atheism is more aligned with beliefs in the activation-synthesis premise of dreams as meaningless waste (Hobson, 2002; Hobson & McCarley, 1977; Schredl & Bulkeley, 2019).

Journaling dreams to facilitate further study was reported by seven participants. At 70% this is higher than online studies suggesting between 18-24% of people have recorded dreams at some time suggesting NDEs are the protagonist behind this (Schredl, 2021; Schredl & Goritz, 2017). Recording dreams is associated with personality traits such as conscientiousness and openness to experience as it requires discipline, dutifulness, sensitivity to beauty, intellectual curiosity, and an awareness of one's feelings, all traits influenced by NDEs (Long & Woollacott, 2024; Schredl & Goritz, 2017). An affinity toward books (i.e., going to the library) and keeping daytime diaries is also related to dream journaling suggesting those prone to scholastic activities and creativity are more inclined to journal dreams (Schredl, 2021).

Consistent with this finding within the current study is the influence dreams had on creative attitudes and problem-solving when explored (Long & Woollacott, 2024). Lindsay et al. (2024) found that interest in dreams was significantly higher with a small effect for NDErs compared to non-NDErs and controls and that NDEs enhanced problem-solving and creativity within dreams. Countless historical antidotes support this finding relating to dreams reordering existing knowledge within broader memory associations throughout the night (Lewis et al., 2018). As waking creative projects and problems become emotional concerns, these charge memories in less restrictive ways creating dreams that think outside the box by making connections not previously considered (Barrett, 2017). Dreams also further provide an impetus to be creatively explored during waking, which often develops into waking preoccupations, further continued in later dreams as waking and dreaming function on a conscious continuum as found in one case (Domhoff, 1996; Schredl & Erlacher, 2007). This

is in contrast to more popular findings that individuals must first be preoccupied with creativity or waking issues during waking otherwise it is unlikely that dreams will inspire or facilitate creativity (Hartmann, 1998).

Facilitating spiritual beliefs about dreams, creativity, problem-solving, and other waking interests participants applied dream incubation referring to techniques influencing dream content through focused attention. Incubation activities include intention, praying, or meditation (Paquette, 2018). These may trigger the cognitive and emotional dream processes or spiritual influences to construct dreams. Consistent with this study's findings, creative input, personal emotional issues, and waking desires have been found to be incubated more than academic and objective waking concerns when thinking about these for around 15 minutes before sleep and can increase the relevance of dreams relating to creativity and problems by up to 50% and 34% featuring a solution (Barrett, 1993; Olsen et al., 2020). Past studies suggest that dreams influence important decisions, and attitudinal and behavioural changes, and this is associated with positive attitudes toward dreaming, and recall, while also decreasing waking distress as problems become more manageable (Olsen et al., 2020; White & Taytroe, 2003).

For one participant with PTSD, re-experiencing negative emotions, memories, and metaphors within a safer scenario (dreams) followed by discussion in therapy assisted with confronting trauma. This participant experienced post-traumatic nightmares associated with conceptually unrelated memories linking two traumatic events (Hartmann, 2010b). Gradually, greater mastery over these PTNMs increases, reclaiming some agency since the trauma and building confidence and resilience (Weber & Wetter, 2022). A month after being interviewed, the participant explained the emotional benefits of the interview and certain materials provided by the co-supervisor following this interaction. These included a calmer sensory system, feeling more connected, and stabilised metabolic and absorption rates supported by

findings that NDEs mitigate intrusive aspects of trauma requiring a specific diagnosis (Greyson, 2001). Also, when the NDE is adequately integrated into the experiencer's life, positive aftereffects such as those mentioned by this participant seem to occur more frequently (Bianco et al., 2017 ; Greyson, 1997).

Further supported by the current study and found within other studies relates to how recording dreams changes personality, such as enhancing mindfulness, living in the present, and desire to know a truer self, leading to self-reliance and confidence when navigating life's problems (Srivastava, 2024; Zingmark & Granberg-Axell, 2023). This is because recording dreams have been found to preserve unconscious processes expressed through narratives, symbolism, and scenarios otherwise forgotten that are expressed emotionally and symbolically in dreams. Reflection for growth can occur after introspection linking hidden personal meanings regarding important issues such as relationships, motivations, fears, desires, and potential dangers (Olsen et al., 2020). This empowers people to reconnect with their inner selves, promoting individuality and strengthening interpersonal relationships (Srivastava, 2024).

### **Past Life Dreams and Precognitive Dreams**

In the study, past life dreams were reported as vivid and mostly contained themes related to war, death, and deprivation but could feature positive themes and emotions. Like other spiritual experiences, these are highly subjective, and while some form of contemporary verification is not essential, this can support these dreams (Rivus, 1994). Two participants made some external biographical reference to their current lives, one through a printed medium, and the other through intuition and discussion with someone who claimed to also be in the dream. Such dreams oppose the continuity hypothesis by not reflecting information known to the dreamer (Paquette, 2018).

Some writings have explored the expression of past-life memories in dreams. Consistent with this study, these dreams are often nightmarish, feature the person's death, and may produce awakenings (Matlock, 2022). Comparisons have been made between past life dreams and PTNMs as episodic memories associated with these are more replicative or symbolic of death. In the current study, one participant matched this criterion, experiencing significant waking distress from past life dreams until its resolution. Another quality of past life dreams is their proclivity to reoccur from childhood throughout the life span with little variation as was the case for this participant (Matlock, 2022; Mills & Tucker, 2014; Rivus, 1994).

Whenever character aspects or symbolism are relatable within the past life, it is easy to question the validity of these dreams as was expressed by two participants. However, anomalous features have been reported within past life dreams that oppose fundamental beliefs about reincarnation (Greyson, 2021). Notions of reincarnation may contradict seeing deceased loved ones within NDEs; however, this can be reconciled with shifts in beliefs in time and space experienced as a core NDE feature. Less straightforward interpretations may include more than one individual inheriting a single past life. For example, some cultures believe in simultaneous reincarnation, and certain Indigenous tribes are more inclined to believe dreams allow visits from past lives featuring previous aspects of personality (Greyson, 2021; Hughes, 2000). Studies in this area are still minimal, however, past lives experienced at the same time have been recorded within data currently unpublished (Greyson, 2021).

Precognitive dreams were also reported. These dreams predicted death and funeral clothes. Similarities were observed across these dreams with the deceased appearing in bright attire while the living were allocated to lighter shades. The current study supports Paquette (2015) who found that the dying appears vibrant, healthy, and radiant in precognitive dreams.

One dream was comparable to ‘leave-taking’ dreams where the person just before death visits the living with a message regarding the imminency of death. Also supported, the timeframe should be short between the dream’s prediction and the event as everyone dies on a long enough timescale (Paquette, 2015). The revelation in these dreams was immediate upon awakening and two days later, meaning this was not an issue.

Precognitive dreams are often more vivid and colourful than other dreams and can warn of negative events (Parra, 2013). Like in the current study, death can be a common precognitive dream theme usually relating to a close friend or relative (Parra, 2013, 2018). They also recorded that symbolism was relevant in around a quarter of these dreams and in 10% of cases was vague. Some dream details in the current study were symbolic (i.e., a celebrity known for bright colours) and vague but were given meaning after being revealed to be precognitive.

### **Conscious Awareness and Engagement**

A pivotal finding for two participants within the study related to entities known years earlier who had further significance during NDEs and who gave insights, comfort, and direction, within hypnogogic states. Considerable momentary and long-term value was attributed to these visitations. An implication is that hypnagogia and hypnopompic states provide unique conditions for these interactions. Relatedly, it has been found that these dream states often contain known figures appearing once, talking directly, and making suggestions, however, contrary to this study’s findings, issuing commands and interactive conversation is uncommon (Jones et al., 2010). In agreement with this study, hypnagogia is an ideal period for creative novel insights, explainable by involuntary, spontaneous, and dreamlike perceptual content existing divergently within a balancing act between waking experience and activated REM, disbanding as sleep progresses (Horowitz et al., 2023; Lacaux et al., 2021).

Regardless, the study's findings also supported the trauma associated with a frightening transitional embodiment upon awakening (Cheyne, 2001). In these two cases, non-NDE figures under the category of tactile sensations were embodied entities who pulled the arms of an animate consistent with threats and assaults related to the incubus theory (Cheyne, 2001). Feelings of suffocation and oppression interact with what is seen and heard to give the impression of intruders (Cheyne, 2001). Unsurprisingly, conventional views aside, sleep paralysis involving malevolent visitations and feelings of threat is usually upheld as a spiritual experience (Hufford, 2005). Like other spiritually interpreted visionary events, fear of stigma discourages disclosure and facilitates a biomedical tendency to define these in ways comparable to waking hallucinations. Various studies and opinion pieces caution against this position, arguing that visionary experiences found in sleep paralysis are normal, cross-culturally similar, and feature key differences from waking hallucinations (Hufford, 2005, 2008; Waters et al., 2016).

Interest in lucid dreaming increased for six participants. This had gravity-defying qualities such as flying, similar to other findings suggesting that having fun is the most popular application (Schadlich & Erlacher, 2012). Overall, lucid dreaming had some initial appeal for one participant for growth, however, similar to Konkoly and Burke (2019) lucid dreaming had little overall impact on personal development. Reflected in the current study, age, and experience assist lucid dreaming as mastery requires dedication, development, and executing actions in dreams (Stumbrys & Erlacher, 2016; Stumbrys et al., 2014). Lucid dreams vary in lucidity as cognition can be impaired and irrational and frequent lucid dreaming is rare (Stumbrys, 2018).

Lucid dreaming is unique for the general population who now view it in fairly non-esoteric scientific terms, contrasted with the past (Luth et al., 2018). However, within this study, some spiritual meanings were inferred as lucid dreaming can be conceived as

moderately exceptional or less so than precognitive dreaming, and in a recurrent context, it is shown to facilitate spiritual practice and growth (Luth et al., 2018; Stumbrys, 2021). While lucid dreams are known to be a strategy for treating nightmares, in line with recent findings, lucid dreaming did not successfully alter post-traumatic nightmares within the current study (Holzinger et al., 2020).

Phenomena like OBEs extending outside the body were important for some participants. This supports Lindsay et al. (2024) who recorded a significant positive correlation between the frequency of OBEs with lucid dreams for NDErs compared to non-NDErs and controls. These occur in multiple locations or dimensions beyond and through their physical bodies fostering transitions and reconnecting the mind with the body. In doing so, and when not framed as neurophysiological hallucinations, OBEs oppose notions of local consciousness in favour of multidimensional consciousness (Greyson, 2007b).

These dream experiences are distinct from lucid dreams but may be expressions of a similar experience outside of the body, containing heightened awareness, and are more transpersonal (Gallo et al., 2023). Owing to greater spiritual meanings, spontaneous OBEs had various psychological and physical aftereffects for participants as they felt like a natural process and functioned as a reset. Astral travel was found to foster personal development and insights. From a subjective viewpoint, this is consistent with qualitative findings from Shaw et al. (2023), who found that OBEs generate a deeper appreciation of life, shifts in personality, and higher peace and serenity. While conceptually different from NDEs, OBEs through detaching from the body were also shown to increase beliefs about the immortality of the soul and an authentic self while fostering prosocial attitudes (Shaw et al., 2023).

### **Emotional Tone and Imagery**

The study sample reported increased vivid dreams since NDEs. This reality shift often increased the intensity of emotions and imagery in dreams for most (eight) participants in the

sample as this feature was described as more prevalent. This was aligned with Lindsay et al. (2024) who revealed dream recall was comparatively higher for NDErs than non-NDErs and controls at 26%, 13.3%, and 10% respectively and dreams were overall more vivid. Vividness contributes to waking moods and perceptions, with benefits existing in the form of creating wonder in dreams and enhancing the personal and relational meanings of certain dreams when awake by locating these within their historical context.

Within the current study, NDEs made certain dreams aligned with waking settings. A prominent example was a college setting and conversations elaborately recalled from 50 years before. This relates to episodic memories from important life events appearing in deep SWS and being further strengthened during REM in positive memory formation as dreams selectively process and encode emotionally salient memories from the most self-defining events of one's life (Cassol et al., 2019; Chambers & Payne, 2014). This contradicts how memories are not exact copies of experiences, which can produce inaccuracies and distortions (Payne et al., 2009).

Some participants reported struggling with distortions between dreaming and waking following their NDEs, a dynamic known as dream-reality confusion. In the general population, thin boundaries at the personality level may help explain this as this group often experiences greater dream emotion and flexibility regarding conscious states (Skrzypinska et al., 2018). Confusion may relate to issues with source monitoring, which at a low level is highly common throughout the general population, however, this is more severe in pathological states such as narcolepsy and is only problematic when serious events are confabulated (Wamsley et al., 2014).

Interestingly, Lindsay et al. (2024) reported a higher frequency of nightmares in their NDEr sample compared to the two other groups, and higher dream recall was a predictor of nightmares, however, this was with a small effect and was generally not a problem. One

participant, however, reported frequent nightmares she attributed to her NDE, which rather than promoting growth, caused waking distress around the event and trauma. This may be partially explainable by the recency of the NDE (two years earlier) and consistent with other studies revealing nightmares can be characterised by aggression, emotional intensity, bizarreness, and sometimes involve awakenings (Robert & Zadra, 2014). The participant with PTSD experienced PTNMs consistent with findings from Wittmann et al. (2022) involving a passive dream self and failure to move from a passive position and interact with the dream setting.

While nightmares are defined by threatening and negative emotions other dreams not considered nightmares can have these features, a finding mirrored in the current study (Mathes et al., 2020; Robert & Zadra, 2014). Measures used are clinically motivated indices of nightmare distress with low correlations between nightmare distress and frequency suggesting diverse appraisals of nightmares (Kuiken et al., 2006; Nielsen & Zadra, 2005). Appraisals are mediated by beliefs about nightmares (i.e., dysfunctional beliefs about nightmares, and who has them) with self-rated emotional appraisal of negative content sometimes being more positive compared with ratings by external judges (Mathes et al., 2020; Schredl et al., 2019).

A complex relationship was shown as higher stress levels during waking may influence nightmares and waking appraisal, and these were likely mediated by positive waking aspects related to NDEs (i.e., reduced fear of death) (Van Lommel et al., 2001). The current study required the creative interpretation of overlap within metaphors as memories extend more broadly in dreams representing subtle connections (Malinowski & Horton, 2015). An important defining quality of dreams including nightmares was the transferred spiritual qualities of NDEs. In some cases, these were viewed as warnings from spiritual forces, reflecting non-pathological psychological states that were not only manageable but

life-affirming as NDEs empower individuals, reorientating suffering toward personal growth and healing (Noyes et al., 2009; Turnball, 2024). Balch et al. (2024) reported that individuals with high spiritualism are more likely to appraise dreams with deities as visitations or messages from these spiritual forces. Even negative dreams promote waking connections and continuity to deities as protection is required according to these dreams thereby promoting a waking desire to be closer to these deities or God (Balch et al., 2024; Schredl & Hofmann, 2003).

Consistent with emotional memory consolidation throughout REM periods, six participants had dreams associated with positive social events involving the deceased. These regenerated and continued deep and meaningful bonds with relatives and guides endowed with spiritual significance and waking interpersonal functions. Continuity in thought in dreams between familiar waking characters increases the likelihood of them co-appearing and is closely associated with positive emotions, especially joy, and affection (Han & Schweickert, 2016; Kahn et al., 2002).

The dream space makes it possible to reconnect with the deceased, often resulting in feelings of awe and peace in the dreamer as memories are creatively combined to produce agreeable contexts regarding relationships (Nielsen & Levin, 2007). Black et al. (2014) revealed that dreams featuring daily activities in the current sample represent later stages of grief, associated with better adjustment, belief in an afterlife, and memory consolidation as memories are refreshed within social schemas and decay slower with loved ones. While studies into bereavement dreams are still lacking, generally, positive dreams are more common for people with secure attachment during life, which was the case for all but one participant who felt that a parent was absent in life (Black et al., 2014; Han & Schweickert, 2016).

## **Future Considerations for Research**

Overall, the impact of NDEs on dreaming was diverse but certain characteristics were common. Given that all but one of the participants were of European/Pākehā descent, and the spiritual dimension afforded to dreaming after an NDE, future studies should use a more diverse sample. Culture may be relevant as an interpretive lens for altered notions and experiences of dreaming especially when spiritually driven. Future New Zealand studies could explore the interconnection between the Moemoea (dreams) of Māori after an NDE as Indigenous insights into NDEs and ensuing effects on dreaming are still largely absent (Potiki, 2023; Shawanda & Manitowabi, 2023; Sleutjes et al., 2014). Spirituality underscores a traditional Māori holistic framework making some of this population ideal when exploring how dreams are impacted by what are perceived as spiritual events like NDEs. While separate dimensions, there is less separation between the sleeping and waking realms within Maoridom. Current evidence suggests that Māori experience comparatively deeper NDEs so studies should explore how this influences a Māori-centred dualistic model of dreams regarding insights into guidance, learning, visitations, character development, and perseverance (Haami et al., 2024; Tassell-Matamua & Murray, 2014). Western materialist biomedical models misrepresent Indigenous ways of understanding subjective experiences, therefore, this research should be guided by a Māori-centred approach incorporating a Māori worldview, concepts, and research methods to facilitate Indigenous insights and ways of knowing (Boardsworth et al., 2024).

The current sample included participants to various extents interested in dreams and spirituality before their NDE. For instance, several participants reported an inherited or natural ‘sixth sense’ from childhood potentially blurring the line between the impact of NDEs on dreams and other spiritual inclinations materialising from the former. Some dream experiences can be viewed on a continuum of paranormal expression, and in some cases like

precognition, dreaming is the most powerful medium. Lucid dreaming can be perceived as mystical and associated with spiritual growth sometimes making it difficult to determine whether these promote spirituality or if spiritual experiences enhance lucid dreaming (Stumbrys, 2021). The study demonstrated enhanced interest in several aspects related to lucid dreaming after an NDE meaning this event was the likely catalyst, however, future studies should explore the frequency and level of awareness within lucid dreaming given that within the current study, these were limited. Future qualitative studies should also compare spiritual and paranormal views before an NDE and measure psychological factors (i.e., traits) to see if these influence certain dreams (i.e. precognitive dreams) and frequency (Schredl, 2009).

Interests and experiences related to dreaming within the sample were diverse, existing on a spectrum, ranging from a few to many types of dreams recorded through extensive journaling over the years. This meant some participants lacked experience in dreaming both in type and frequency with some participants not wishing or being able to explore certain forms of dreaming. This may limit insights into meanings prescribed to dreams. For example, astral dreaming was rare, requiring special dedication. Importantly, it would be interesting to gather more accounts of direct aspects of NDEs on dream content. There was only one frequent example of this, and more reports may shed light on how different forms of consciousness interconnect. Future research could explore episodic details from NDEs within sleep stages to see what physiological correlates these are associated with (Payne & Nadel, 2004). Relatedly, content from dreams in the aftermath of NDEs could be compared to other ASCs, such as meditation and hypnosis as aspects of NDEs can be replicated by these states and how these enhance persona, social, and spiritual growth (Shaw et al., 2023).

Given that hypnogogic states featured auditory qualities from two NDE entities and the emotional and creative benefits this entailed, future studies researching the impact of

NDEs on dreaming should consider the material within both hypnogogic and hypnopompic states. Recent studies suggest that hypnagogia may be an ideal state for creativity and engagement potentially owing to the greater semantic distance between memories and voices in various forms (Horowitz et al., 2023; Jones et al., 2010). What little research so far exploring dreams after NDEs save sleep paralysis typically excludes these states. However, based on the current findings, studies could specifically explore transitional states or include them, as these occupy a unique space between waking and dreaming.

The current study gave a voice to participants to express their interest and experiences of dreaming. This was achieved retrospectively, with a considerable distance (mean of 29 years) between the time of NDEs and the commencement of the study. Subjective phenomena as contextualised and containing fluid meanings produce subjective reports that constitute experience (Smith & Sparkes, 2016). Some evidence surfaced in the sample that dreaming aftereffects like precognitive dreams were more prevalent in the immediate aftermath of an NDE. This tends to be a consistent theme reported by other studies into aftereffects. Furthermore, memories and emotions attached to dreams can quickly fade due to trait factors (personality variables), state factors (awakening, major life changes), and emotional regulation, resulting in variability in recall (Nielsen & Lara-Carrasco, 2007; Schredl, 2007). Participants who appeared not to journal their dreams naturally reported fewer dreams, an understandable finding as dreams are difficult to recall. In the future, it may be advantageous for studies to explore dreams shortly after a near-death experience when certain aftereffects may be more intense.

Interviews in the study were conducted in a one-off manner. Future studies may benefit from multiple interviews with participants. While costly, time-consuming, and complicated this process may have the advantage of deepening the richness of the analysis as participants can explore, reflect upon, and track what they say over time and build better

understandings between participants and researchers (Riley & Chamberlain, 2021a). Multi-methods or triangulation offers alternative ways to position the data extending its scope, depth, and reflexivity. There is considerable promise regarding dream diaries as most NDErs in the current study recorded their dreams producing better recall. While personal, diaries are highly subjective, feature diverse and detailed views, are introspective, and preserve details recorded months or years earlier (Alamri, 2019). Additionally, longitudinal studies would help capture the long-term spiritual, psychological, and social outcomes of dreaming. However, recruiting a large sample who have had NDEs and who feel that this impacted their dreams would be difficult.

A related aspect worth referencing is the strengths and limitations of online interviewing utilised within the study. The first participant consenting to be interviewed withdrew through a misunderstanding that the interview would occur in person. Six of the seven interviews were conducted online resolving limitations such as geographical distance, cost, and potential safety issues. It also promoted international diversification in the sample while still maintaining some local specificity. However, this form of communication deprives interviewing of subjective qualities more noticeable during in-person interviewing such as facial expressions, tone of voice, and certain rapport-building behaviours (Jowett et al., 2011). Owing to the highly personal nature of NDEs, future research should preferably occur more in person to enhance the richness of data and respect between researchers and participants.

Another consideration includes a potential gender bias as 8 of the 10 NDErs in the study were women. Studies reveal women have higher dream recall and are more inclined to keep dream diaries, potentially through socialisation (Schredl, 2021). Future studies should consider the potential for gender differences by including a more even distribution between genders. As an experience with considerable social consequences, there may also be potential

for interviewing family members to understand how they approach the dreams of NDErs and if any personal meaning is received. Many participants expressed reluctance to discuss important dreams with relatives through their spiritual meaning. This may assist with validating both experiences of NDEs and the impact these can have on dreaming.

### **Implications For Clinical Practice**

The insights into dreaming presented by the study highlight the broader implications of a near-death experience as a life-changing event with aftereffects. As evident, dreams took on broader personal, social, and spiritual meanings initiated by this experience. Regardless of current Western biomedical trends of dismissing, or abnormalizing NDEs and the spiritual significance of dreams, both experiences were life-affirming. It has already been discussed how this event mitigates accident-related trauma, a finding reflected in Lindsay et al. (2024) and the current study as both showed that dreams were more relevant. Contrary to this, some changes may concern certain people, and the study may be referenced for future interventions especially if a willingness to incorporate spiritual domains becomes more standard within clinical practice (Greyson, 2001). In doing so, deeper insights into how NDEs impact dreams, sleep patterns, and waking well-being will be encouraged and enhanced.

Furthermore, given the remarkable emotional and practical beneficial changes to dreaming after NDEs and the proclivity to dream about emotional events, certain dream practices like journaling in the study may assist with understanding and exploring this event for healthier integration. This may be especially useful in the context of trauma and PTSD as NDEs are triggered by life-threatening events requiring a unique response as supported by the current study, as intrusive symptoms may be positive (Greyson, 1997, 2001, 2007b). Sharing dreams after this subjective event within a group clinical setting may also assist with NDE integration as this benefits growth and insight (Bianco et al., 2017 ; Blagrove & Lockheart,

2023). This setting further enhances empathy, comradery, and understanding of these conscious states, facilitating healthier integration and acceptance.

## **Conclusion**

This study has shed light on one of many multilayered aftereffects contextually experienced in the wake of the highly subjective state experienced on the threshold of death. As dreaming is another subjectively experienced state impacted by emotional waking events, NDErs as privy to this under-reported experience discussed the many ways, they approached and experienced dreaming in the context of NDEs. Experiencers altered beliefs and practices in line with aspects and the emotional aftermath of NDEs. The spiritualisation of dreams as worthy of careful study, their important practical uses relating to psychological emotional growth, and insights and opportunities unavailable during waking compelled NDErs to accept dreams as biographically relevant. The study places dreaming as having broad personal and social meanings and generating generally positive outcomes for the future as promoted by dream content. In doing so, the study provides evidence that dreams are one area of transformation that benefits NDErs and those around them. This study therefore has utility for informing healthcare providers treating trauma and sleep issues.

## References

- Alamri, W. A. (2019). Effectiveness of qualitative research methods: Interviews and diaries. *International Journal of English and Cultural Studies*, 2(1), 65-70.
- Aserinsky, E., & Kleitman, N. (1953). Regularly occurring periods of eye motility, and concomitant phenomena. *Science*, 118(3062), 273-274.
- Athappilly, G. K., Greyson, B., & Stevenson, I. (2006). Do prevailing societal models influence reports of near-death experiences? A comparison of accounts reported before and after 1975. *The Journal of Nervous and Mental Disease*, 194(3), 218-222.
- Balch, J., Hodulik, G., Raider, R., David, A., Reed, C., Wildman, W. J., Rohr, D., & McNamara, P. (2024). Dream content influences daily spirituality. <https://doi.org/https://ssrn.com/abstract=5066183>.
- Barrett, D. (1993). The "committee of sleep": A study of dream incubation for problem-solving. *Dreaming*, 3(2), 115-122.
- Barrett, D. (2017). Dreams and creative problem-solving. *Annals of the New York Academy of Sciences*, 1406(1), 64-67.
- Baruss, I. (2020). *Alterations in Consciousness: An Empirical Analysis for Social Scientist* (2 ed.). American Psychological Association.
- Bianco, S., Sambin, M., & Palmieri, A. (2017). Meaning making after a near-death experience: The relevance of intrapsychic and interpersonal dynamics. *Death Studies* 41,(9), 562-573.
- Black, J., Belicki, K., Piro, R., & Hughes, H. (2021). Comforting versus distressing dreams of the deceased: Relations to grief, trauma, attachment, continuing bonds, and post-dream reactions. *Omega-Journal of Death and Dying*, 84(2), 525-550.
- Black, J., Murkar, A., & Black, J. (2014). Examining the healing process through dreams in bereavement. *Sleep and Hypnosis*, 16(1-2), 10-17.

- Blagrove, M., & Lockheart, J. (2023). *The Science and Art of Dreaming*. Routledge
- Boardsworth, K., Barlow, R., Wilson, B. J., Uluinayau, T. W., & Signal, N. (2024). Toward culturally responsive qualitative research methods in the design of health technologies: learnings in applying an Indigenous Maori-centred approach. *International Journal of Qualitative Methods*, 23, 1-9.
- Bodizs, R., Simor, P., Csoka, S., Berdi, M., & Kopp, M. S. (2008). Dreaming and health promotion: A theoretical proposal and some epidemiological establishments. *European Journal of Mental Health*, 3(1), 35-62.
- Braun, V., & Clarke, V. (2021). One size fits all? What counts as quality practice in (reflexive) thematic analysis? *Qualitative Research in Psychology*, 18(3), 328-352.
- Brekke, F., Hodges Dale, T., & Pallesen, S. (2023). Who has nightmares? An investigation into the relationship between personality and nightmares. *Dreaming*, 33(1), 32-44.
- Brinkmann, S., Hviid Jacobsen, M., & Kristiansen, S. (2020). Historical overview of qualitative research in the social sciences In P. Leavy (Ed.), *The Oxford Handbook of Qualitative Research* (2nd ed., pp. 1-42). Oxford University Press.
- Bush, N. E. (1991). Is ten years a life-review? *Journal of Near-Death Studies*, 10(1), 5-9.
- Campillo, F., T., Alcaraz-Sanchez, A., Demsar, E., Wu, H. P., Dresler, M., Windt, J., & Blanke, O. (2024). Out-of-body experiences in relation to lucid dreaming and sleep paralysis: A theoretical review and conceptual model. *Neuroscience & Biobehavioural Reviews*, 163, 1-20.
- Cartwright, R. D. (2010). *The twenty-four-hour mind: The role of sleep and dreaming in our emotional lives*. Oxford University Press.
- Cassidy, E., Reynolds, F., Naylor, S., & De Souza, L. (2011). Using interpretative phenomenological analysis to inform physiotherapy practice: An introduction with

- reference to the lived experience of cerebellar ataxia. *Physiotherapy Theory and Practice* 27(4), 263-277. <https://doi.org/10.3109/09593985.2010.488278>.
- Cassol, H., Bonin, E. A. C., Bastin, C., Puttaert, N., Charland-Verville, V., Laureys, S., & Martial, C. (2020). Near-death experience memories include more episodic components than flashbulb memories. *Frontiers in Psychology*, 11(888), 1-11.
- Cassol, H., D'Argembeau, A., Charland-Verville, V., Laureys, S., & Martial, C. (2019). Memories of near-death experiences: Are they self-defining? *Neuroscience of Consciousness*, 5(1), 1-9.
- Cassol, H., Petre, B., Degrange, S., Martial, C., Charland-Verville, V., Lallier, F., Bragard, I., Guillaume, M., & Laureys, S. (2018 ). Qualitative thematic analysis of the phenomenology of near-death experiences. *Plos One*, 13(2), 1-14.
- Chambers, A., & Payne, J. D. (2014). The influence of sleep on the consolidation of positive emotional memories: Preliminary evidence. *AIMS Neuroscience*, 1(1), 39-51.
- Cheyne, J. A. (2001). The ominous numinous: Sensed presence and 'other' hallucinations *Journal of Consciousness Studies*, 8(5-7), 133-150.
- Crotty, M. (1998). *Foundations of social research: Meaning and perspective in the research process*. Routledge.
- D'Agostino, A., & Limosani, I. (2016). Hypnagogic hallucinations and sleep paralysis. In M. Goswami (Ed.), *Narcolepsy* (pp. 81-93). Springer International Publishing.
- Davis, J. L., Byrd, P., & Rhudy, J. L. (2007). Characteristics of chronic nightmares in a trauma-exposed treatment-seeking sample. *Dreaming*, 17(4), 187-198.
- Dement, W., & Kleitman, N. (1957). The relation of eye movements during sleep to dream activity: An objective method for the study of dreaming. *Journal of Experimental Psychology*, 53(5), 339-346.

- Diekelmann, S., & Born, J. (2010). The memory function of sleep. *Nature Reviews Neuroscience, 11*, 114-126.
- Domhoff, G. W. (1996). *Finding meaning in dreams*. Springer
- Eatough, V., & Smith, J. A. (2017). Interpretive phenomenological analysis. In C. Willig & R. W. Stainton (Eds.), *The sage handbook of qualitative research in psychology*. SAGE Publications Limited.
- Ellenbogen, J. M., Hulbert, J. C., Stickgold, R., Dinges, D. F., & Thompson-Schill, S. L. (2006). Interfering with theories of sleep and memory: Sleep, declarative memory, and associated interference. *Current Biology, 16*, 1290-1294.
- Erlacher, D., Schredl, M., & Stumbrys, T. (2020). Self-perceived effects of lucid dreaming on mental and physical health. *International Journal of Dream Research, 13*(2), 309-313.
- Facco, E., Agrillo, C., & Greyson, B. (2015). Epistemological implications of near-death experiences and other non-ordinary mental expression: Moving beyond the concept of altered state of consciousness. *Medical Hypotheses, 85*(1), 85-93.
- Fosse, M. J., Fosse, R., Hobson, J. A., & Stickgold, R. J. (2003). Dreaming and episodic memory. *Journal of Cognitive Neuro Science, 15*(1), 1-9.
- Fritz, P., Lejeune, N., Cassol, H., Laureys, S., Gosseries, O., & Martial, C. (2024). Near-death experiences: What do we know? In C. S. S. Laureys (Ed.), *Coma and Disorders of Consciousness* (Third ed., pp. 287-311). Springer.
- Funkhouser, A. (2021). The effects of near-death experiences on dreaming: A pilot study. *International Journal of Dream Research, 14*(2), 320-322.
- Gallo, F. T., Spiouzas, I., Herrero, N., L., Godoy, D., Tommasel, A., Gasca-Rolin, M., Ramele, R., Gleiser, P. M., & Forcata, C. (2023). Structural differences between non-lucid dreams, lucid dreams and out-of-body-experience reports assessed by graph analysis. *Scientific Reports, 13*(1), 1-10.

- Ghibellini, R., & Meier, B. (2023). The hypnagogic state: A brief update. *The Journal of Sleep Research*, 32(1), 1-16.
- Gibbs, J. C. (1999). Book review light and death: One doctor's fascinating account of near-death experiences, by Micheal B. Sabom. *Journal of Near-Death Studies*, 18(2), 117-127.
- Glaskin, K. (2015). Dreams, perception, and creation realisation. *Topics in Cognitive Science* 7, 664-676.
- Greyson, B. (1983a). The near-death experience scale: construction, reliability, and validity. *The Journal of Nervous and Mental Disease*, 171(6), 369-375.
- Greyson, B. (1983b). The near-death experience scale: construction, reliability, and validity. *The Journal of Nervous and Mental Disease*, 171(6), 369-375.
- Greyson, B. (1997). The near-death experience as a focus of clinical attention. *The Journal of Nervous and Mental Disease*, 185(5), 327-334.
- Greyson, B. (2000). Dissociation in people who have near-death experiences: Out of their bodies or out of their minds. *The Lancet*, 355(9202), 460-463.
- Greyson, B. (2001). Posttraumatic stress symptoms following near-death experience. *American Journal of Orthopsychiatry*, 71(3), 368-373.
- Greyson, B. (2006). Near-death experiences and spirituality *Zygon*, 41(2), 393-414.
- Greyson, B. (2007a). Consistency of near-death experience accounts over two decades: Are reports embellished over time? *Resuscitation*, 73(3), 407-411.
- Greyson, B. (2007b). Near-death experiences: Clinical implications *Archives of Clinical Psychiatry*, 34(1), 49-57.
- Greyson, B. (2013). Getting comfortable with near-death experiences: An overview of near-death experiences. *The Journal of Missouri State Medicine Association*, 110(6), 475-481.

- Greyson, B. (2021). Near-death experiences and claims of past-life memories. *Journal of Near-Death Studies*, 39(3), 212-226.
- Greyson, B. (2023). The darker side of near-death experiences. *Journal of Scientific Exploration*, 37(4), 683-698.
- Greyson, B., & Bush, N. E. (1992). Distressing near-death experiences. *Psychiatry Interpersonal and Biological Processes*, 55, 95-110.
- Greyson, B., Liester, M. B., Kinsey, L., & Alsum, S. (2015). Electromagnetic phenomena reported by near-death experiencers. *Journal of Near-Death Studies*, 33(4), 213-243.
- Groth-Marnat, G., & Summer, R. (1998). Altered beliefs, attitudes, and behaviours following near-death experiences. *Journal of Humanistic Psychology*, 38(3), 110-125.
- Haami, D., Gibson, R., Lindsay, N., & Tassell-Matamua, N. (2024). Kei te moe te tinana, kei te oho te wairua- As the body sleeps, the spirit awakens: exploring the spiritual experiences of contemporary Maori associated with sleep. *Kotuitui: New Zealand Journal of Social Sciences Online*, 1-21.
- Han, H. J., & Schweickert, R. (2016). Continuity: Knowing each other, emotional closeness, and appearing together in dreams, *Dreaming*, 26(4), 299-307.
- Hartmann, E. (1998). *Dreams and Nightmares: The origin and meaning of dreams*. Plenum Press.
- Hartmann, E. (1999). The nightmare is the most useful dream. *Sleep and Hypnosis*, 1(4), 199-203.
- Hartmann, E. (2010a). The dream always makes new connections: The dream is a creation, not a replay. *Sleep Medicine Clinics* 5(2), 241-248.
- Hartmann, E. (2010b). *The nature of functions of dreaming*. Oxford University Press.

- Hartmann, E., Rosen, R., & Rand, W. (1998). Personality and dreaming: Boundary structure and dream content. *Dreaming*, 8, 31-39.
- <https://doi.org/https://doi.org/10.1023/B:DREM.0000005913.21794.1f>.
- Health, S., Brooks, R., Cleaver, E., & Ireland, E. (2009). Qualitative Interviewing. In *Researching Young People's Lives*. (pp. 78-98). Sage Publications Ltd.
- Hobson, J. A. (2002). *Dreaming: An introduction to the science of sleep*. Oxford University Press.
- Hobson, J. A., & McCarley, R. W. (1977). The brain as a dream state generator: An activation-synthesis hypothesis of the dream process. *Am J Psychiatry*, 134(12), 1335-1348.
- Hoffman, R. M. (1995). Disclosure habits after near-death experiences: Influences, obstacles, and listener selection. *Journal of Near-Death Studies*, 14(1), 29-48.
- Holzinger, B., Saletu, B., & Klosch, G. (2020). Cognitions in sleep: Lucid dreaming as an intervention for nightmares in patients with posttraumatic stress disorder. *Frontiers in Psychology*, 11, 1-7.
- Horowitz, A., Esfahany, K., Galvez, T. V., & Stickgold, R. (2023). Targeted dream incubation at sleep onset increases post-sleep creative performance. *Scientific Reports*, 13, 1-16.
- Horrigan-Kelly, M., Millar, M., & Dowling, M. (2016). Understanding the key tenets of Heidegger's philosophy for interpretive phenomenological research. *International Journal of Qualitative Methods*, 15(1), 1-8.
- Hou, Y., Huang, Q., Ravi, P., & Suprakash, C. (2013). Infrequent near-death experiences in severe brain injury survivors - A quantitative and qualitative study. *Annals of Indian Academy of Neurology*, 16(1), 75-81.
- Hufford, D. J. (2005). Sleep paralysis as spiritual experience. *Transcultural Psychiatry*, 42(1), 11-45.

- Hufford, D. J. (2008). Visionary spiritual experiences and cognitive aspects of spiritual transformation. *The Global Spiral*, 9(5).
- Hughes, J. D. (2000). Dream interpretations in ancient civilisations. *Dreaming*, 10, 7-18.
- Insinger, M. (1991). The impact of a near-death experience on family relationships. *Journal of Near-Death Studies*, 9(3), 141-181.
- Jahromi, A. G. (2021). The aftereffects of near-death experiences on the lives of near-death experiencers: A Qualitative study. *Journal of Qualitative Research in Health Sciences*, 10(2), 83-91.
- Jones, S. R., Fernyhough, C., & Laroi, F. (2010). A phenomenological survey of auditory verbal hallucinations in the hypnagogic and hypnopompic states. *Phenomenology and the Cognitive Sciences*, 9, 213-224.
- Jowett, A., Peel, E., & Shaw, R. (2011). Online interviewing in psychology: Reflections on the process. *Qualitative Research in Psychology*, 8, 354-369.
- Junuthula, S. (2024). Dreams reflections of inner reality and self-awareness. *Intersect* 17(3), 1-10.
- Kahn, D., Pace-Schott, E., & Hobson, J. A. (2002). Emotion and cognition: Feeling and character identification in dreaming. *Consciousness and Cognition*, 11(1), 34-50.
- Kohr, R. L. (1983). Near-death experiences: Altered states, and psi sensitivity. *Anabiosis-The Journal for Near-Death Studies*, 3(2), 157-176.
- Konkoly, K., & Burke, C. T. (2019). Can learning to lucid dreams promote personal growth? *Dreaming*, 29(2), 113-126.
- Kovoor, J. G., Santhosh, S., Stretton, B., Tan, S., Gouldooz, H., Morrthy, S., Pietris, J., Hannemann, C., Kiu Yu, L., Johnson, R., Reddi, B. A., Gupta, A. K., Wagner, M., Page, G. J., Kovoor, P., Bastiampillai, T., Maddocks, I., Perry, S. W., Wong, M., L.,

- Bacchi, S. (2024). Near-death experiences after cardiac arrest: A scoping review. *Discover Mental Health, 4*(19), 1-10.
- Kramer, M. (1991). The nightmare: A failure in dream function. *Dreaming, 1*(4), 277-285.
- Kruusen, M. L. (2024). Near-death experiences. 1-37.
- Kuiken, D., Lee, M. N., Eng, T., & Singh, T. (2006). The influence of impactful dreams on self-perceptual depth and spiritual transformation. *Dreaming 16*(4), 258-279.
- Lacaux, C., Andrillion, T., Bastoul, C., Idir, Y., Fonteix-Galet, A., Arnulf, I., & Oudiette, D. (2021). Sleep onset is a creative sweet spot. *Neuroscience, 7*(50), 1-9.
- Lawthom, R., & Tindall, C. (1994). Phenomenology In Banister. P., G. Bunn, E. Burman, J. Daniels, P. Duckett, D. Goodley, R. Lawthom, I. Parker, K. Runswick-Cole, & J. Sixsmith (Eds.), *Qualitative Methods in Psychology: A Research Guide*. McGraw-Hill Education.
- Lee, R. L. M. (2004). The reimagination of death: Dream yoga, near-death, and clear-light. *Journal of Near-Death Studies, 22*(4), 221-234.
- Levin, R., & Nielsen, T. (2007). Disturbed dreaming, posttraumatic stress disorder, and affect distress: a review and neurocognitive model. *Psychological Bulletin, 133*(3), 482-528.
- Lewis, P. A., Knoblich, G., & Poe, G. (2018). How memory replay in sleep boosts creative problem-solving. *Trends Cogn Sci, 22*(6), 491-503.
- Lin, L., & Xiao, J. (2022). Near-death experience and dream: The roles of memories and self. *Advances in Social Sciences, Education and Humanities Research 653*(683-689).
- Lindley, J. H., Bryan, S., & Conley, B. (1981). Near-death experiences in a pacific northwest American population: The evergreen study. *Journal of Near-Death Studies, 1*(2), 104-124.

- Lindsay, N., O'Sullivan, L., Gibson, R., & Ladyman, C. (2023). Near-death experiences and sleep disturbance: An exploratory study using wrist actigraphy. *The Journal of Nervous and Mental Disease*, 211(11), 856-861.
- Lindsay, N., & Tassell-Matamua, N. (2020). Subjective sleep quality after a near-death experience. *Journal of Near-Death Studies*, 38(2), 65-86.
- Lindsay, N., Tassell-Matamua, N., O'Sullivan, L., & Gibson, R. (2024). Trauma or transcendence? The relationship between near-death experiences and dreaming. *Dreaming*, 1-17.
- Lindsay, N., & Tassell-Matamua, N. A. (2021). Near-death experiences and afterlife belief: A mixed method analysis. *Psychology of Religion and Spirituality*, 13(3), 304-313.
- Llewellyn, S. (2020). *What do dreams do?* Oxford University Press.
- Long, J. (2021). Evidence for the survival of consciousness in near-death experiences: Decades of science and new insights. *Bigelow Institute for Consciousness Studies*
- Long, J., & Woollacott, M. (2024). Long-term transformational effects of near-death experiences. *Explore*, 20(5), 1-9.
- Luth, K., Appel, K., Pipa, G., & Schredl, M. (2018). The public perception of lucid dreaming and its research. *International Journal of Dream Research*, 11(186-196).
- Mader, T., Oliver, K. I., Daffre, C., Kim, S., Orr, S. P., Lasko, N. B., Seo, J., Kleim, B., & Pace-Scott, E. F. (2023). Automatic activity, posttraumatic and nontraumatic nightmares, and PTSD after trauma exposure. *Psychological Medicine*, 53(3), 731-740.
- Malinowski, J. K., & Horton, C. L. (2015). Metaphor and hyperassociativity: The imagination mechanisms behind emotion assimilation in sleep and dreaming. *Frontiers in Psychology*, 6, 1-19.

- Mallett, R., Picard-Deland, C., Pigeon, W., Wary, M., Grewal, A., Blagrove, M., & Carr, M. (2022). The relationship between dreams and subsequent morning mood using self-reports and text analysis. *Affective Science*, 3, 400-405.
- Martial, C., Cassol, H., Antonopoulos, G., Charlier, T., Heros, J., Donneau, A. F., Charland-Verville, V., & Laureys, S. (2017). Temporality of features in near-death experience narratives. *Frontiers in Behavioural Neuroscience*, 11, 1-9.
- Mathes, J., Gieselmann, A., & Pietrowsky, R. (2020). When a dream turns into a nightmare: Due to negative dream content or to negative appraisal? *International Journal of Dream Research*, 13(2), 209-214.
- Mathes, J., Weiger, N., Gieselmann, A., & Pietrowsky, R. (2019). The threat simulation in nightmares-frequency and characteristics of dream threats in frequent nightmare dreamers. *Dreaming*, 29(4), 310-322.
- Matlock, J. G. (2022). Apparent past-life memories in a recurring dream of the 1934 Los Angeles New Year's flood. *Journal of Anomalous Experience and Cognition*, 2(2), 389-422.
- Melloul, A. A., & Kinnunen, K. (2023). *The phenomenology of distressing near-death experiences*. Lunds Universitet.
- Mills, A., & Tucker, J. (2014). Past life experiences In E. Cardena, S. J. Lynn, & S. Krippner (Eds.), *Varieties of anomalous experience: Examining the scientific evidence* (2 ed., pp. 303-332). American Psychological Association.
- Moody, R. (1975). *Life after life*. Mockingbird Books.
- Moorcroft, W. H. (2013). *Modern theories of dreams and dreaming* (2 ed.). Springer Science + Business Media <https://doi.org/10.1007/978-1-4614-6467-9>.
- Moran, D. (2000). *Introduction to phenomenology*. Routledge.

- Moran, D. (2013). Edmund Husserl and phenomenology In A. Bailey (Ed.), *Philosophy of Mind: The Key Thinkers* (pp. 37-58). Bloomsbury.
- Morris, L. L., & Knafl, K. (2003). The nature and meaning of the near-death experience for patients and critical care nurses. *Journal of Near-Death Studies*, 21(3), 139-167.
- Mueller, A. E., & Segal, D. L. (2015). Structured versus semistructured versus unstructured interviews. In R. L. C. S. O. Lilienfeld. (Ed.), *The Encyclopedia of Clinical Psychology* (pp. 1-7). John Wiley & Sons, Inc.
- Musgrave, C. (1997). The near-death experience. *Journal of Near-Death Studies*, 15(3), 187-201.
- Nelson, K. R., Mattingly, M., Lee, S. A., & Schmitt, A. (2006). Does the arousal system contribute to near-death experiences? *Neurology*, 66, 1003-1009.
- Nielsen, T., Deslauriers, D., & Baylor, G. (1991). Emotion in dream and waking events reports. *Dreaming*, 1(4), 287-300.
- Nielsen, T., & Lara-Carrasco, J. (2007). Nightmares, dreaming, and emotion regulation: A review. In D. B. P. McNamara (Ed.), *The New Science of Dreaming: Vol 2. Content, recall, and personality correlates* (pp. 253-284). Praeger Publishers/Greenwood Publishing Group.
- Nielsen, T., & Levin, R. (2007). Nightmares: A new neurocognitive model. *Sleep Medicine Reviews*, 11(4), 295-310.
- Nielsen, T., & Zadra, A. (2005). *Nightmares and other common dream disturbances* (Fourth ed.). Elsevier Inc. <https://doi.org/https://doi.org/10.1016/BO-7216-0797-7/X5001-0>.
- Noyes, R., Fenwick, P., Holden, J. M., & Christian, S. (2009). Aftereffects of pleasurable western near-death experiences In D. J. Bruce Greyson, Janice Miner Holden (Ed.), *The Handbook of Near-Death Experiences: Thirty Years of Investigation* Praeger Publishers.

- Ohayon, M. M. (2000). Prevalence of hallucinations and their pathological associations in the general population. *Psychiatry Research, 97*(2-3), 153-164.
- Olsen, M. R., Schredl, M., & Carlsson, I. (2020). Conscious use of dreams in waking life (nontherapy setting) for decision-making, problem-solving, attitude formation, and behavioral change. *Dreaming, 30*(3), 257-266.
- Paquet, C., Cogan, C. M., & Davis, J. L. (2020). A quantitative text analysis approach to describing posttraumatic nightmares in a treatment-seeking population. *Dreaming, 30*(1), 54-67.
- Paquette, A. (2015). Can death-related dreams predict future deaths? Evidence from a dream journal comprising nearly 12,000 dreams. *Journal of Scientific Exploration, 29*(3), 411-423.
- Paquette, A. (2018). The interpretation of independent agents and spiritual content in dreams. *International Journal of Dream Research, 11*(2), 86-105.
- Parra, A. (2013). A phenomenological examination of premonition experiences in dreams and waking states: A survey study. *Australian Journal of Parapsychology, 13*(2), 187-212.
- Parra, A. (2018). Perceived luckiness, style of cognition and absorption, and their relationship with premonitions in dreams. *Journal of the Society for Psychical Research, 82*(3), 149-163.
- Pasricha, S., & Stevenson, I. (1986). Near-death experiences in India. *The Journal of Nervous and Mental Disease, 174*(3), 165-170.
- Payne, J. D., & Nadel, L. (2004). Sleep, dreams, and memory consolidation: The role of the stress hormone cortisol. *Learning & Memory, 11*, 671-678.
- Payne, J. D., Schacter, D. L., Propper, R., Huang, L. W., Wamsley, E., Tucker, M. A., Walker, M. P., & Stichgold, R. (2009). The role of sleep in false memory formation. *Neurobiology of sleep in false memory formation, 92*(327-334).

- Pesant, N., & Zadra, A. (2006). Dream content and psychological well-being: A longitudinal study of the continuity hypothesis. *Journal of Clinical Psychology, 62*(1), 111-121.
- Phelps, A. J., Forbes, D., & Creamer, M. (2008). Understanding posttraumatic nightmares: An empirical and conceptual review. *Clinical Psychology Review, 28*, 338-355.
- Phillips, R. E., & Pargament, K. I. (2002). The sanctification of dreams. *Dreaming 12*(3), 141-153.
- Pigeon, W., Carr, M., & Mellman, T. (2021). Dream content associated with the development of ptsd. *International Journal of Dream Research, 14*(1), 136-140.
- Pilgrim, D. (2019). *Critical realism for psychologists*. Routledge <https://doi.org/https://doi-org.ezproxy.massey.ac.nz/10.4324/9780429274497>.
- Plihal, W., & Born, J. (1997). Effects of early and late nocturnal sleep on declarative and procedural memory. *Journal of Cognitive Neuro Science, 9*(4), 534-547.
- Potiki, M. (2023). Moemoea. *Journal of New Zealand Studies, 35*, 46-57.
- Pratte, E. A. (2022). Near-death experiences and psychological well-being: A quantitative study. *The Journal of Parapsychology, 86*(1), 99-124.
- Radin, D. (2014). Getting comfortable with near-death experiences: Out of one's mind or beyond the brain? The challenge of interpreting near-death experiences. *The Journal of Missouri State Medicine Association, 111*(1), 24-25.
- Raduga, M., Kuyava, O., & Sevchenko, N. (2020). Is there a relationship among REM sleep-dissociated phenomena, like lucid dreaming, sleep paralysis, out-of-body experiences, and false awakening? *Medical Hypotheses, 144*, 1-8.
- Reid, A., Bloxham, A., Carr, M., van Rijn, E., Basoudan, N., Tulip, C., & Blagrove, M. (2022). Effects of sleep on positive, negative, and neutral valenced story and image memory. *British Journal of Psychology, 113*(3), 777-797.

- Rek, S., Sheaves, B., & Freeman, D. (2017). Nightmares in the general population: identifying potential causal factors. *Social Psychiatry and Psychiatric Epidemiology*, 52, 1123-1133.
- Revonsuo, A. (2000). The reinterpretation of dreams: an evolutionary hypothesis of the function of dreaming. *Behavioural and Brain Sciences*, 23, 793-1121.
- Revonsuo, A., Kallio, S., & Sikka, P. (2009 ). What is an altered state of consciousness? *Philosophical Psychology*, 22(2), 187-204.
- Riley, S., & Chamberlain, K. (2021a). Designing Qualitative Research in Psychology In U. Flick (Ed.), *SAGE Handbook of Qualitative Research Design*. Sage.
- Riley, S., & Chamberlain, K. (2021b). Designing Qualitative Research in Psychology. In M. McCullen (Ed.), *Sage Handbook of Qualitative Research Design*. Sage.
- Ring, K., & Rosing, C. J. (1990). The omega project: An empirical study of the NDE-prone personality. *Journal of Near-Death Studies*, 8, 211-239.
- Rivus, T. (1994). Dreams about previous lives. *Prana* 43-46.
- Robert, G., & Zadra, A. (2014). Thematic and content analysis of idiopathic nightmares and bad dreams. *Sleep and Hypnosis*, 37(2), 409-417.
- Runswick-Cole, K. (2012). Interviewing In *Qualitative Methods in Psychology*. McGrawHill.
- Saunders, D. T., Roe, C. A., Smith, G., & Clegg, H. (2016). Lucid dreaming incidence: A qualitative effects meta-analysis of 50 years of research. *Consciousness and Cognition*, 43, 197-215.
- Schadlich, M., & Erlacher, D. (2012). Applications of lucid dreams: An online study. *International Journal of Dream Research*, 5(2), 134-138.
- Schredl, M. (2003). Effects of state and trait factors on nightmare frequency. *European Archive Psychiatry Clinical Neuroscience*, 253, 241-247.

- Schredl, M. (2007). Dream recall: Models and empirical data. In D. B. P. Mcnamara (Ed.), *The new science of dreaming: Content, recall, and personality correlates* (Vol. 2, pp. 79-114). Praeger Publishers/Greenwood Publishing Group.
- Schredl, M. (2009). Frequency of precognitive dreams: Association with dreams recall and personality variables. *Journal of the Society for Psychological Research*, 73(895), 83-91.
- Schredl, M. (2021). The recording of one's dreams in children, adolescents, and adults: The UK library study *International Journal of Dream Research*, 14(1), 114-120.
- Schredl, M., & Bulkeley, K. (2019). Dream sharing frequency: Associations with sociodemographic variables and attitudes towards dreams in an American sample. *Dreaming*, 29(3), 211-219.
- Schredl, M., Dyck, M., & Anja, S. K. (2020). Inducing lucid dreams: The wake-up-back-to-bed technique in a home setting. *Dreaming*, 30(4), 287-296.
- Schredl, M., & Erlacher, D. (2007). Self-reported effects of dreams on waking-life creativity: An empirical study. *The Journal of Psychology*, 14(1), 35-46.
- Schredl, M., Fuchs, C., & Mallett, R. (2022). Differences between lucid and nonlucid dream reports: A with-subjects design. *Dreaming*, 32(4), 345-352.
- Schredl, M., & Goritz, A. S. (2017). Dream recall frequency, attitude toward dreams, and the Big Five personality factors. *Dreaming*, 27(1), 49-58.
- Schredl, M., & Goritz, A. S. (2018). Nightmare themes: an online study of most recent nightmares and childhood nightmares. *Journal of Clinical Sleep Medicine*, 14(3), 465-471.
- Schredl, M., & Hofmann, F. (2003). Continuity between waking activities and dream entities. *Consciousness and Cognition*, 12(2), 298-308.

- Schredl, M., Holyba, L., Kollmer, T., Korfer, J., & Pross, A. (2019). Nightmare distress, nightmare frequency, and beliefs about nightmares. *International Journal of Dream Research, 12*(2), 60-63.
- Schredl, M., & Wittmann, L. (2005). Dreaming: A psychological view. *Schweizer Archiv Fur Neurologie and Psychiatrie, 156*(8), 484-492.
- Schroter-Kunhardt, M. (1993). A review of near-death experiences. *Journal of Scientific Exploration, 7*(3), 219-239.
- Schwaninger, J., Eisenberg, P. R., Schechtman, K. B., & Weiss, A. N. (2002). A prospective analysis of near-death experiences in cardiac arrest patients. *Journal of Near-Death Studies, 20*(4), 215-232.
- Segev, M. (2012). The teleological significance of dreaming in Aristotle In B. Inwood (Ed.), *Oxford Studies in Ancient Philosophy* (Vol. 43, pp. 107-141). Oxford University Press
- Shaw, J., Gandy, S., & Stumbrys, T. (2023). Transformative effects of spontaneous out of body experiences in healthy individuals: An interpretive phenomenological analysis. *Psychology and Consciousness: Theory, Research, and Practice*.  
<https://doi.org/http://dx.doi.org/10.1037/cns0000324>.
- Shawanda, A., & Manitowabi, J. (2023). Anishinaabe dream methodology. *Turtle Island Journal of Indigenous Health, 1*(3), 25-37.
- Sherwood, S. J., & Roe, C. A. (2003). A review of dream esp studies conducted since the maimonides dream esp programme. *Journal of Consciousness Studies, 10*(6-7), 85-109.
- Sherwood, S. J., Roe, C. A., Simmonds, C. A., & Biles, C. (2002). An exploration investigation of dream precognition using consensus judging and static targets. *Journal of the Society for Psychical Research, 66*(866), 22-28.

- Skrzypinska, D., Holda, M., Szmigielska, B., & Sloda, M. (2018). The phenomenology of dream-reality confusion: A quantitative study. *Dreaming*, 28(3), 245-260.
- Sleutjes, A., Moreira-Almeida, A., & Greyson, B. (2014). Almost 40 years investigating near-death experiences: An overview of mainstream scientific journals. *The Journal of Nervous and Mental Disease*, 202(11), 883-886.
- Smith, B., & Sparkes, A. C. (2016). *Routledge handbook of qualitative research in sport and exercise*. Taylor & Francis Group.
- Srivastava, A. (2024). From insight to action: How dreams foster self-reliance. *Vantage: Journal of Thematic Analysis*, 5(2), 36-42.
- Stefansson, E., Traustason, S., & Eysteinnsson, T. (2006). An ocular physiological explanation for visual sensations in near-death experiences. *Journal of Near-Death Studies*, 25(2), 109-112.
- Stickgold, R., & Walker, M. P. (2013). Sleep-dependent memory triage: Evolving generalization through selective processing. *Nat Neurosci*, 16(2), 139-145.
- Stout, Y. M., Jacquin, L. A., & Atwater, P. M. (2006). Six major challenges faced by near-death experiencers. *Journal of Near-Death Studies*, 25(1), 49-62.
- Stumbrys, T. (2018). Bridging lucid dream research and transpersonal psychology: Toward transpersonal studies of lucid dreams. *The Journal of Transpersonal Psychology*, 50(2), 176-193.
- Stumbrys, T. (2021). The luminous night of the soul: The relationship between lucid dreaming and spirituality. *International Journal of Transpersonal Studies*, 40(2), 64-74.
- 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.

- Stumbrys, T., Erlacher, D., Johnson, M., & Schredl, M. (2014). The phenomenology of lucid dreaming: An online survey. *American Journal of Psychology*, *127*(2), 191-204.
- Suddick, K. M., Cross, V., & Stew, G. (2020). The work of hermeneutic phenomenology. *International Journal of Qualitative Methods*, *19*, 1-14.
- Sullivan, C., & Riley, S. (2012). Planning and ethics. In C. Sullivan, C. Gibson, & S. Riley (Eds.), *Doing Your Psychology Qualitative Project*. SAGE.
- Sutherland, C. (1989). Psychic phenomena following near-death experiences: An Australian Study. *Journal of Near-Death Studies*, *8*(2), 93-102.
- Sutherland, C. (1990). Changes in religious beliefs, attitudes, and practice following near-death experiences: An Australian study. *Journal of Near-Death Studies*, *9*(1), 21-31.
- Tassell-Matamua, N., & Murray, M. (2014). Near-death experiences: Quantitative findings from an Aotearoa New Zealand sample. *Journal of Near-Death Studies*, *33*(1), 3-29.
- Thonnard, M., Charland-Verville, V., Bredart, S., Dehon, H., Ledoux, D., Laureys, S., & Vanhauzenhuysse, A. (2013). Characteristics of near-death experiences memories as compared to real and imagined events memories. *Plos One*, *8*(3), 1-5.
- Turnball, E. J. (2024). Encountering living individuals in near-death experiences: A phenomenological study. *Consciousness, Spirituality & Transpersonal Psychology* *5*, 55-70. <https://doi.org/https://doi.org/10.53074/cstp.2024.74>.
- Ullman, M., Krippner, S., & Vaughn, A. (1973). *Dream telepathy*. Macmillan.
- Van Lommel, P. (2006). Near-death experience, consciousness, and the brain: A new concept about the continuity of the brain of our consciousness based on recent scientific research on near-death experience survivors of cardiac arrest survivors. *World Futures*, *62*(1-2), 134-151.

- Van Lommel, P., Van Wees, R., Meyers, V., & Elfferich, I. (2001). Near-death experience in survivors of cardiac arrest: A prospective study in the Netherlands. *The Lancet*, 358(9298), 2039-2045.
- Varpio, L., O'Brien, B., Rees, C. E., Monrouxe, L. V., Ajjawi, R., & Paradis, E. (2020). The applicability of generalisability and bias to health professions education's research *Medical Education*, 55, 167-173.
- Vernon, D., Roxburgh, E. C., & Schofield, M. B. (2024). Testing home dream precognition and exploring links to psychological factors. *International Journal of Dream Research*, 1-24.
- Wagner, L., Gais, S., & Born, J. (2001). Emotional memory formation is enhanced across intervals with high amounts of rapid eye movement sleep. *Learning Memory*, 8, 112-119.
- Walker, M. P., Liston, C., Hobson, J. A., & Stickgold, R. (2002). Cognitive flexibility across the sleep-wake cycle: REM-sleep enhancement of anagram problem solving. *Cognitive Brain Research*, 14(3), 317-324.
- Wamsley, E., Donjacour, C., Scammell, T., Lammers, G., & Stickgold, R. (2014). Delusional confusion of dreaming and reality in narcolepsy *Sleep and Hypnosis*, 37(2), 419-422.
- Wamsley, E. J., & Stickgold, R. (2019). Dreaming of a learning task is associated with enhanced memory consolidation: Replication in an overnight sleep study. *Journal of Sleep Research*, 28(1), 1-17.
- Wamsley, E. J., Tucker, M. A., Payne, J. D., Benavides, J. A., & Stickgold, R. (2010). Dreaming of a learning task is associated with enhanced sleep-dependent memory consolidation. *Current Biology*, 20(9), 850-855.

- Waters, F., Blom, J. D., Dang-Vu, T. T., Cheyne, J. A., Alderson-Day, B., Woodruff, P., & Collerton, D. (2016). What is the link between hallucinations, dreams, and hypnagogic-hypnopompic experiences? *Schizophrenia Bulletin*, *42*(5), 1098-1109.
- Weber, F. C., & Wetter, T. C. (2022). The many faces of sleep disorders in post-traumatic stress disorder: An update on clinical features and treatment. *Neurology and Neuroscience*, *81*(2), 85-97.
- Weiten, W. (2013). *Psychology: Themes and Variations* (9 ed.). Wadsworth, Cengage Learning.
- Wells, A. D. (1993). Reincarnation beliefs among near-death experiences. *Journal of Near-Death Studies*, *12*(1), 17-34.
- West, T. (1998). On the encounter with a divine presence during a near-death experience: A phenomenological inquiry. In R. Valle (Ed.), *Phenomenological inquiry in psychology: Existential and transpersonal dimensions* (pp. 387-405). Plenum Press.
- White, G. L., & Taytroe, L. (2003). Personal problem solving using dream incubation: Dreaming, relaxation, or waking cognition? *Dreaming*, *13*(4), 193-209.
- Wilde, D., & Murray, C. D. (2010). Interpreting the anomalous: Finding meaning in out-of-body and near-death experiences. *Qualitative Research in Psychology*, *7*(1), 57-72.
- Wilde, D. J., & Murray, C. D. (2009). The evolving self: Finding meaning in near-death experiences using interpretative phenomenological analysis. *Mental Health, Religion, and Culture*, *12*(3), 223-239.
- Willig, C. (2022). *Introducing Qualitative Research in Psychology* (Fourth edition ed.). Open University Press.
- Wittmann, L., Kempe, S., Anstadt, T., Schredl, M., Protic, S., Hollmer, H., & Gorzka, R. J. (2022). Characterizing veterans' dreams applying the Zurich dream process coding

system. *Dreaming*, 32(4), 331-344.

<https://doi.org/https://doi.org/10.1037/drm0000229>.

Woolacott, M., & Peyton, B. (2021). Verified account of near-death experience in a physician who survived cardiac arrest. *Explore*, 17(3), 213-219.

Zadra, A., & Stickgold, R. (2021). *When brains dream: Exploring the science and mystery of sleep*. W. W. Norton & Company.

Zhang, Y., & Wildemuth, B. M. (2009). Unstructured Interviews. In E. B. M. Wildermuth (Ed.), *Applications of Social Research Methods to Questions in Information and Library Science*. (pp. 239-247). ABC-CLIO.

Zhu, C. (2013). Jung on the nature and interpretation of dreams: A developmental delineation with cognitive neuroscientific responses *Behavioural Sciences* 3(4), 662-675.

Zingmark, H., & Granberg-Axell, A. (2023). Near-death experiences and the change of worldview in survivors of sudden cardiac arrest; A phenomenological and hermeneutic study. *Qualitative Research in Medicine and Healthcare*, 6(3), 76-85.

## Appendix A: Advertisement

### **Have you had a near-death experience and are interested in talking about your dreams?**

Kia Ora,

My name is Nicholas and I'm a student at Massey University's School of Psychology who is currently conducting an interview study into the effects that a near-death experience may have on dreaming.

A near-death experience is a subjective state occurring just before, or during clinical death. It can be followed by afteraffects, some of which, like those related to sleep and dreaming, are still poorly understood.

If you have had a near-death experience and feel this has had an impact on your dreaming, please reach out to hear more about this unique study. These short interviews will be conducted between March and May 2024 and can be conducted online through zoom or face to face for Dunedin residents in a quiet public setting. A comprehensive information sheet will be emailed or posted to you further outlining what this research involves.

Please let me know if you have any questions or concerns regarding this interview project.

Thank you,

Nicholas

Email: [REDACTED]

## Appendix B: Information Sheet



### Information Sheet

#### Dreaming After a Near-Death Experience

Hello,

My name is Nicholas Brough, and I am a postgraduate student in the School of Psychology at Massey University. My research focuses on how dreams may be influenced by a near-death experience. The purpose of this information sheet is to inform you of an interview study I am conducting in this area and what participation will involve if you choose to volunteer. Please carefully read this document, so that you can make an informed decision regarding whether or not you would like to participate.

A near-death experience is a conscious state occurring most commonly just prior or immediately after death. While many people do not report a near-death experience after a life-threatening event, for those who do, psychosocial and spiritual changes have been reported. There is a growing body of research suggesting such changes include aspects of sleep and dreaming. This research will involve recorded interviews with people who have had a near-death experience and whether the near-death experience impacts their dreaming experiences, and whether dreams are used to interpret factors related to their near-death experience.

#### **Who can take part?**

- To participate in this research, you will be at least 16 years old, and will have had a near-death experience during your lifetime.
- Upon making contact, you will be emailed, or posted a validated near-death experience measurement to assess the strength and features of your near-death experience and a participant consent form. This brief measurement is straightforward and covers features commonly associated with this event and uses a simple scale rating of 0-2.

Massey University  
Te Kunenga ki Pūrehuroa  
Massey University, Private Bag 11 222, Palmerston North, 4442, New Zealand  
+64 6 350 5701 | [contact@massey.ac.nz](mailto:contact@massey.ac.nz) | [massey.ac.nz](http://massey.ac.nz)

- Once assessed, you will be notified via email or post regarding selection. Those not selected for this study will still have the option of being added to a Massey University database for future research. This means if you are still interested in research around sleep, dreaming, and/or near-death experiences another researcher may contact you later to be a part of another research project.

#### **What does this research involve?**

- If you are considered eligible for this study, a time and place for the interview will be arranged. Interviews will be conducted between February and April in person, or online via zoom. All in person interviews will be conducted in a public location, such as a library meeting room to ensure the safety of both the researcher and participant.
- When being interviewed, you can refuse, skip, or alter a particular question.
- Interviews will be recorded and will last approximately one hour. Time prior and after interviewing for rapport building, restating ethics, and refreshments may take an additional 30 minutes.

#### **What are the benefits of participating in this study?**

Participation is entirely optional. Should you decide to be interviewed, you will help build knowledge into how a near-death experience can influence dream content while also representing the near-death experience community. The research is connected to wider research conducted by one of the study's supervisors, Nicole Lindsay (PhD) into sleep and dreaming and will become part of a published academic work. You will contribute towards creating awareness into the ways a near-death experience impact dream experience and its influence on sleep quality. Key findings will be presented at the Aotearoa Sleep conference.

#### **Your rights if you choose to participate in this research?**



If you decide to participate, and are selected for this research, it is important to be aware of your rights as a participant. This means you:

- Can refuse to answer a particular question.
- Have the right to pause recording to disclose information off the record.
- Are free to withdraw from the research anytime, before, during, or up to two weeks after the interview.
- May ask questions throughout the study addressing any concerns that you may have.
- Will be assured that your personal information is not shared without your permission.

#### **How will information be managed?**

Your personal information will be securely stored on a password protected computer. Once your interview is transcribed verbatim, you and your personal details will become de-identified through a pseudonym. You can request a copy of your transcript through the participant consent form. Only I will have access to your personal information, and when my two supervisors see transcripts, your identity will be unavailable to them. On completion of the study, your de-identified information will be transferred to these supervisors and stored in a Massey University database for 5 years.

#### **Thank you for taking the time to read this document regarding my research.**

Please carefully consider whether participation in this study is right for you. If you would like to participate, you can make contact via email or phone to begin the selection process or ask any further questions you may have.

Sincerely,  
Nicholas

**Nicholas Brough**

Massey University  
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**Postgraduate researcher**

**Email:** [REDACTED]

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**School of Psychology**

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**Dr Nicole Lindsay**

**Co-supervisor**

**Senior lecturer**

**School of Psychology**

**Massey University**

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*This project has been reviewed and approved by Massey University Human Ethics Ohu Matatika 1, Application OM1 23/53. If you have any concerns about the conduct of this research, please contact the Chairperson, Massey University Human Ethics Ohu Matatika 1, email [humanethics1@massey.ac.nz](mailto:humanethics1@massey.ac.nz).*

## Appendix C: Participant Consent Form



**School of Psychology  
Massey University  
Private Bag 11 222  
Palmerston North 4442  
New Zealand**

### *Dreaming After a Near-Death Experience*

#### **PARTICIPANT CONSENT FORM**

I have read and understand the Information Sheet regarding the study into Dreaming After a Near-Death Experience. I have had the details of the study explained to me, any questions I had have been answered to my satisfaction, and I understand that I may ask further questions at any time. I have been given sufficient time to consider whether to participate in this study and I understand participation is voluntary and that I may withdraw from the study at any time.

1. I agree/do not agree to the interview being sound recorded.
2. I agree to participate in this study under the conditions set out in the Information Sheet.

#### **Declaration by Participant:**

I \_\_\_\_\_ [print full name] \_\_\_\_\_ hereby consent to take part in this study.

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

## Appendix D: Greyson's (1983) Near-Death Experience Scale



### NDE Scale

#### Near Death Incident

I am interested to know more about what may have occurred during your near-death incident. Please select the most appropriate response to each question.

- 1. Did time seem to speed up or slow down?**  
0 = No  
1 = Time seemed to go faster or slower than usual  
2 = Everything seemed to be happening at once; or time stopped or lost all meaning
- 2. Were your thoughts speeded up?**  
0 = No  
1 = Faster than usual  
2 = Incredibly fast
- 3. Did scenes from your past come back to you?**  
0 = No  
1 = I remembered many past events  
2 = My past flashed before me, out of my control
- 4. Did you suddenly seem to understand everything?**  
0 = No  
1 = Everything about myself or others  
2 = Everything about the universe
- 5. Did you have a feeling of peace or pleasantness?**  
0 = No  
1 = Relief or calmness  
2 = Incredible peace or pleasantness
- 6. Did you have a feeling of joy?**  
0 = No  
1 = Happiness  
2 = Incredible joy
- 7. Did you feel a sense of harmony or unity with the universe?**  
0 = No  
1 = Felt no longer in conflict with nature  
2 = Felt united or one with the world

- 8. Did you see, or feel surrounded by, a brilliant light?**  
0 = No  
1 = An unusually bright light  
2 = A light clearly of mystical or other-worldly origin
- 9. Were your senses more vivid than usual?**  
0 = No  
1 = More vivid than usual  
2 = Incredibly more vivid
- 10. Did you seem to be aware of things going on elsewhere, as if by ESP?**  
0 = No  
1 = Yes, but facts have not been checked out  
2 = Yes, and facts have been checked out
- 11. Did scenes from the future come to you?**  
0 = No  
1 = Scenes from personal future  
2 = Visions of the world's future
- 12. Did you feel separated from your body?**  
0 = No  
1 = Lost awareness of body  
2 = Clearly left the body and existed outside it
- 13. Did you seem to enter some other, unearthly world?**  
0 = No  
1 = Some unfamiliar and strange place  
2 = A clearly mystical or unearthly realm
- 14. Did you seem to encounter a mystical being or presence, or hear an unidentifiable voice?**  
0 = No  
1 = Heard a voice I couldn't identify  
2 = Encountered a definite being, or a voice clearly of mystical or unearthly origin
- 15. Did you see deceased or religious spirits?**  
0 = No  
1 = Sensed their presence  
2 = Actually saw them
- 16. Did you come to a border or point of no return?**  
0 = No  
1 = Came to a definite conscious decision to "return" to life  
2 = Came to a barrier that I was not permitted to cross; or "sent back" to life against my will
-

## Appendix E: Interview Schedule

### Interview Guide

#### Dreaming After a Near-Death Experience

**Pre-interview protocols:** Introductions, rapport building, refreshments, restating ethics.

**Relevant outcomes.**

- To capture defining features of your dreams after an NDE.
- To understand how dreams impact the quality of your sleep.
- Provide you with the opportunity to represent this community.
- Inform healthcare interventions to better interact with people after an NDE.

### **Main Questions**

1. In your own words, can you please tell me about your NDE?
  - 1) Do you think your dreams have changed since your NDE, if so, in what ways?
  - 2) Since your NDE, do your dreams contribute to your sleep quality?
2. Are your dreams more vivid since your NDE?
  - 1) Do any situations from your NDE appear in your dreams?
  - 2) Are there any bright lights in your dreams, if so, how would you describe these?
3. Have you experienced nightmares since your NDE?
  - 1) Do these contain recurrent scenarios or features from your NDE?
  - 2) Over time, has anything positive or therapeutic come out of this?

4. Has your view of death changed since your NDE, and if so, do your dreams in any way reflect this?
  - 1) Are there any spiritual entities or messages from your NDE that appear in your dreams?
  - 2) Do you communicate with these entities while dreaming?
  
5. While dreaming, some people can have an out-of-body experience (OBE), also known as astral projection, as they are separated, and can observe their body. Do you ever experience this when dreaming?
  - 1) Do you place any spiritual significance on this?
  - 2) Can you describe your emotions during this time?
  - 3) Do you experience sleep paralysis after this occurs?
  
6. Do your dreams ever become lucid, meaning that you became aware that you are dreaming?
  - 1) Do events from your NDE appear during this time?
  - 2) Can you interact with or control these NDE features within lucid dreams?
  - 3) To what extent does this feel as real as your NDE?
  
7. Are there any ways that you use your dreams to interpret your NDE?
  - 1) Do your dreams make you more empathic or compassionate towards others, and how?
  - 2) How often, if at all, do you discuss your dreams with others?
  
8. Are any of your dreams precognitive, meaning can they predict future events?
  - 1) If so, how often do you notice this?
  - 2) Has anything really important resulted from this?

9. Is there anything I've missed that you would like to add?

**Study's conclusion:** Thanking the participant, what happens next, collectively fading out the interaction, goodbyes.

## Appendix F: Interview Safety Plan

### Researcher Safety Plan

Nicholas Brough

**In the event of an interview occurring at the home of a participant, certain protocols will be in place to protect the researcher and participant. The following measures will be implemented on the day.**

**Regarding the location of the interview:** The researcher will exercise caution before conducting the interview. The location of the home will be assessed for signs of risk prior to the day of the interview. If the home is in proximity to a gang, or displays signs of gang affiliation (e.g., people wearing insignia) then the interview will be politely cancelled. An email will politely ask for any dogs present at the property to be kept outside during the interview. A requirement for a home interview will be that the property is not too isolated from urban areas. If this were to be the case the participant will be informed that ethical requirements regarding researcher safety means that interviewing should occur either online, or in a public setting. A practical reason should be given (e.g., difficulty with physical mobility due to age) for the interview to occur at an interviewee's property. Upon entering the property, if the researcher should feel unsafe for any reason, the interview will not be conducted.

**Once inside the home:** The researcher will take mental notes of visible exits and the way to them. In the reminder email, it will be mentioned that the interview must conclude by a certain time due to other commitments. Any signs of deviant conduct will result in the researcher politely ending the interview. This may include signs of destruction, or that the interviewee is on drugs or has been drinking, and/or the presence of a weapon.

**When arranging a time to be interviewed:** The researcher will ask how many people will be present at the property on the day. It will also be stated via pre-interview email that for the sake of quality data the interview should ideally occur in private. This will be assessed in a balanced manner as it is acceptable for immediate family to be present providing this does not interfere with the progression of the interview. The right of the participant to decide the time of the interview will be upheld, however, the interview must end when sunlight is present. The researcher will have a fully charged phone if family or authorities need to be notified.

**The well-being of the interviewee on the day:** A home interview has the advantage of creating ease for an interviewee and rapport-building measures will be taken. These include a pre-interview email, a phone call, and on the day, small talk and refreshments. To minimize potential power imbalances, the interviewee will lead the discussion. Openly discussing a near-death experience has been reported as emotionally rewarding. However, should the participant become upset, the recording will be paused for a break and the right to withdraw will be restated. Several 0800 numbers providing 24/7 mental health advice will be passed on. Along with informed consent and the right to withdraw up to two weeks after the interview, participants will be made aware that they can postpone or cancel the interview for any unforeseen reason. On the day of interviewing the researcher will be observant of any signs of discomfort such as low mood and if this is detected, the interviewee will be asked if it is the right time to be interviewed.

**A responsible relative will be on standby who will:**

- Receive confirmation that the researcher has arrived safely at the property.
- Has safely conducted the interview upon its conclusion.
- Must contact the police if not contacted by the researcher an hour after the interview is scheduled to end. The researcher's phone will include a tracking app to assist with this.
- It may be arranged for the nominated relative to drop off and collect the researcher in a manner that upholds privacy and confidentiality regarding the interviewee's address.

On the day of the interview, the researcher will only carry a phone and recording device while other items like a wallet and watch will not be taken. The researcher will quickly leave the property if threatened, and/or attacked, and will notify the police.



