

Surveys show anywhere from 30-55% of people experience at least one ADC in their lifetime. This experience consists of people receiving messages from deceased loved ones through experiences such as:



*Dr. Kim Penberthy interviewing an ADC experimenter*

#### List of ADC Examples

- memorable dreams
- significant sounds
- special smells
- feeling touches
- particular symbols
- changes in lighting/electronics
- other personal imagery

Sometimes these events are experienced in altered states, such as meditation or hypnagogic states before/after sleep, and sometimes they happen in an everyday

state of consciousness. These experiences *often involve everyday people who do not have a history of mediumistic abilities or special skills*. When people experience these ADC events, they are often a great source of comfort and healing.

They can happen in the wake of a recent death, 1-2 years after a death, or even many years later. Occasionally, an ADC yields information not previously known to the living recipient. There is much to be studied in this area: the types of people who experience ADCs, the range of circumstances for occurrence, veridical elements, as well as short-term and long-term effects on a person's grieving process. To share an ADC with us, please reach out to [Dr. Fatma Wise](#).

### Out-of-Body Experiences (OBEs)

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Approximately 15% of the general population, at some point in their life, has had the experience of feeling located in space away from their physical body. This experience also occurs in 65% of persons who come close to death and survive.

While most OBEs are spontaneous, *a small number of persons claim to be able to have these experiences voluntarily*. Such persons may be suitable for experiments that might demonstrate exceptional features of these experiences.

### Features of Exceptional OBEs

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Veridical Observations – Some persons report they went to another place and observed events they could not have known because they were outside the range of their normal senses.

Shared Experiences – On rare occasions, the person who reports having been an OBE may be perceived by another person at the place where the first person claimed to be during the OBE.

If you have an experience with one of these features, or you can induce OBEs voluntarily, please [Contact Us](#).

## Psychedelics and Mystical Experiences

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Scholars and mystics have long been fascinated by psychedelic substances, in part, due to their ability to drastically alter sensory perception and cognition. How these particular substances work is still being researched and understood, but their effects appear to be potent. One psychedelic substance that has demonstrated possible mental health benefits is psilocybin.

*We know that psychedelics like psilocybin have shown promise in treating various conditions. We're asking...how the subjective, often deeply meaningful experiences people have during treatment might play a role in that healing process. -Dr. Kim Penberthy*

DOPS researchers Drs. Kim Penberthy and Fatma Wise are leading research of psilocybin at UVA, the first of its kind at the university. They are hoping it might provide relief for those suffering with Prolonged Grief Disorder – a condition in which persistent and intense grief symptoms interfere with a person's ability to function in daily life. Their research focuses specifically on exploring the impact of psilocybin-induced subjective mystical experiences on clinical outcomes.

## Mindfulness, Meditation, and Unusual Experiences

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*Kim Penberthy, PhD – Carlson Prof. of Psychiatry*

**Dr. Kim Penberthy** and her colleagues are interested in studying meditators, especially the unusual experiences sometimes reported during (or around) meditation sessions. Research shows meditation to hold a variety of benefits for stress-related conditions, but there has been little investigation into the reports of unusual experiences associated with a meditation or mindfulness practice.

These reports include anecdotes of precognition, telepathy, clairvoyance, synchronicity, memories of past lives, out-of-body experiences, and other unusual experiences. DOPS is particularly interested in reports where people experienced enhanced psychic or psi abilities as a result of meditation retreats, intensive practice, or meditation classes.

### **Children Who Report Memories of Past Lives**

*Some young children, usually between the ages of 2 and 5, speak about memories of a previous life they claim to have lived. At the same time they often*

*show behaviors, such as phobias or preferences, that are unusual within the context of their particular family and cannot be explained by any current life events.*



*Jim Tucker with Ryan Hammons and his mother*

In many cases, the child's statements correspond accurately to the life and death of a deceased individual. Some children have birthmarks or birth defects congruent with wounds or marks on the deceased person, using postmortem reports to confirm. Older children may retain these apparent memories, but they generally seem to fade around the age of seven.

The subjects of these cases have been found all over the world, including Europe and North America. For the past 20 years, Dr. Jim Tucker has focused mainly on cases found in the United States. Some cases offer more compelling evidence than others for past-life memories. Two thought-provoking cases:

**James Leininger** – memories of being a WWII pilot and getting shot down

**Ryan Hammons** – memories of being a Hollywood extra and talent agent

## Statements a Child Might Make

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The following list is designed to give an idea of what a parent or caregiver might hear from a child reporting memories of a previous life. This list is not meant to be exhaustive as these statements can be quite varied.



*Dr. Jim Tucker interviewing a young child*

### List of Statement Examples

“You’re not my mommy/daddy.”

“I have another mommy/daddy.”



“When I was big, I ... (used to have blue eyes, have a car, worked downtown, etc.).”

“That happened before I was in mommy’s tummy.”

“I have a wife/husband/children.”

“I used to ... (drive a truck/live in another town, etc.).”

“I died ... (in a car accident/after I fell, etc.).”

“Remember when I ... (lived in that other house, was your daddy, etc.).”

In Western culture, these type of statements often get dismissed as fantasy even though they might contain something other than pure imagination. It is probably best not to repeatedly question the child, nor try to prevent them from speaking about these topics. For more info, please refer to Dr. Tucker’s [Advice to Parents](#).

[Contact us](#) if you are a parent or caretaker of a child who is currently speaking about memories of a previous life. You can submit observations of your child’s statements and behaviors to [Diane Morini](#) on our research team. Rest assured anything you share is held in strict confidence, only viewed by our researchers, and not shared without your permission.

Decades of Research - Thousands of Cases

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## *Dr. Stevenson researching in Myanmar – 1975*

In last 50 years of research, DOPS has collected over 2500 cases of the reincarnation type, most of which have been found outside of the United States. For the vast majority of these cases, the field notes have been coded on >200 variables and put into our database. This research has taken countless hours and hundreds of people to accomplish, and there is still so much to learn on the topic.

The database allows our researchers, as well as others, to apply various analyses to look for patterns within the files. These patterns lead to insights, such as: ~30% of the cases contain a birthmark and/or birth defect. Numerous **books and articles** about these cases have been published by DOPS researchers over the decades, including a **two-volume tome containing over 2,000 pages by Dr. Ian Stevenson**.

## **Near-Death Experiences**

*Near-death experiences (NDEs) are intensely vivid and often life-transforming experiences, many of which occur under extreme physiological conditions such as trauma, ceasing of brain activity, deep general anesthesia or cardiac arrest in which no awareness or sensory experiences should be possible according to the prevailing views in neuroscience.*





*Dr. Greyson interviewing a near-death experiencer*

#### List of Typical Features

sensation of leaving the body  
mind functioning more clearly and rapidly than usual  
sensation of being drawn into a tunnel or darkness  
brilliant light, sometimes at the end of the tunnel  
sense of peace, well-being, and/or unconditional love  
sense of having access to unlimited knowledge  
“life review” or recall of important events in the past  
preview of future events yet to come  
encounters with deceased loved ones, or other beings generally identified as religious figures

While these features are commonly reported, many NDEs differ from this pattern and include other elements. For example, some NDEs may be frightening or distressing rather than peaceful.

Have you had a NDE?

**Contact Us** – We are interested in hearing about all kinds of NDEs, particularly veridical ones. Veridical NDEs occur when experiencers acquire verifiable information that they could not have obtained by any normal means. For example, some experiencers report seeing events going on at a distant location, such as another room of the hospital. These cases bear on the question of whether the mind can function outside the physical body, and on whether we may survive bodily death.

If you would like to speak with other people who have had a near-death experience, you can find a list of support groups at the **International Association of Near-Death Studies**.

NDE - Anita Moorjani

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*Dr. Greyson, Anita Moorjani, and Dr. Walker*

Anita Moorjani and her former doctor, Dr. Brian Walker, visited Dr. Greyson at DOPS in May 2019 for a lively discussion on the topic. Dr. Walker was a witness to Anita's severely deteriorated medical condition before she had her NDE.

In her best-selling book “Dying to Be Me“, Anita describes the events and serious illness which led to her NDE, in addition to the life-affirming changes that followed for her after the experience.

NDE - Dr. Eben Alexander



*Dr. Greyson, Anita Moorjani, and Dr. Alexander*

Dr. Eben Alexander and Anita Moorjani had complex, medically documented illnesses at the time they experienced their NDEs. Both individuals were gravely ill at the time and their recoveries perplexed the attending medical professionals.

Eben, a neurosurgeon, wrote a best-selling book detailing his experience: “**Proof of Heaven**“. He also granted Dr. Greyson permission to review his medical records, resulting in an **academic analysis of this case**.

Fifty Years of Research - Dr. Bruce Greyson

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*Dr. Greyson researching with Dr. Pehlivanova*

Bruce Greyson, MD began his research into NDEs here at the University of Virginia in the mid-1970's. Throughout his career, Dr. Greyson has studied over 1000 cases and documented the profound effects on individuals' attitudes, beliefs, values, and personalities. His research has also shown why these experiences cannot be dismissed as dream states or hallucinations.

He continues to collaborate with esteemed scientific colleagues from all around the world, even after his retirement in 2015. At DOPS, he works with Dr. Marieta Pehlivanova, providing mentorship and collaboration on a variety of ongoing NDE research projects. Dr. Greyson's extensive research on NDEs challenges us to think more deeper about the relationship between the mind and brain, as well as consider the possibility of consciousness surviving death.

## **Neuroimaging Studies of Psi**

### Psychophysiological Studies of Psi and Altered States

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*Dr. David Acunzo: Lab Director*

People sometimes report spontaneous experiences such as precognitive dreams or telepathic impressions. Others think they can generate such phenomena at will. "Psi" (or psychic) phenomena refer to these apparently anomalous interactions between individuals and their environment, and include extra-sensory perception and psychokinesis. Psi phenomena are often associated with altered states of

consciousness, such as dreaming, meditative states, and spiritual experiences. One aspect of our research is to experimentally study these phenomena and altered states with a neuroscientific lens, focusing on individuals who can generate them.

For this purpose, we focus on the study of individuals who can trigger these experiences voluntarily. This includes people who can generate and control out-of-body experiences, trance mediums, advanced meditators, and various gifted psi subjects such as remote viewers or individuals who claim to voluntarily effect observable changes in the physical environment via mental processes.

If you feel you possess any or all of the abilities described here, please [Contact Us](#) and provide a brief description of your experiences. You may also wish to complete this [Unusual Experiences Questionnaire](#) to give us an account of your experiences.

Research Paper Excerpts:

Are out-of-body experiences indicative of an underlying psychopathology?

Author links open overlay panel

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Abstract



Out-of-body experiences (OBEs) are intriguing phenomena where individuals feel detached from their physical bodies. While OBEs bear a resemblance to manifestations found in neuropsychiatric conditions, the relationship between OBEs and such disorders remains complex and uncertain. Some studies have demonstrated an association between OBEs and neuropsychiatric conditions, while others suggest potential positive outcomes associated with OBEs. Consequently, it is crucial to differentiate between non-pathological OBEs and those that may be indicative of underlying psychopathology. This study aimed to examine the clinical characteristics of OBE experiencers (OBErs), hypothesizing that OBErs did not have inferior mental health compared to non-OBErs. Contrary to our hypothesis, our findings indicate a significant group difference in psychopathological profile between OBErs and non-OBErs, but the clinical significance of these findings is yet to be elucidated. To provide a more comprehensive understanding of the potential implications of our findings, we adopt a clinically oriented perspective, examining the nuances of the observed differences and considering their potential relevance to real-world experiences and mental well-being. We speculate that OBEs may also function as a dissociative coping mechanism rather than a sign of psychopathology, but this claim warrants further investigation. This reframe invites a broader, more nuanced understanding of OBEs as potentially adaptive responses to stress or trauma, challenging assumptions of a necessary pathologization of the experience.

## Introduction

Humans typically experience their self as localized within their bodily borders. This feeling is grounded by the experience of embodiment (the experience of owning a body), self-location (the experience of where one is in space), and a first-person perspective (Blanke, 2012; Blanke & Arzy, 2005; Blanke & Metzinger, 2009). However, this spatial unity may break down under certain conditions, leading to striking alterations of bodily self-consciousness. When the experience of bodily self-consciousness is altered, it may generate the so-called autoscopic phenomena,



which include a group of own-body perceptions during which subjects report seeing a second own-body in extracorporeal space (Blanke, 2012). Among these phenomena is the out-of-body experience (OBE), which is defined by the alteration of all three phenomenological characteristics described above. In other words, individuals feel a detachment of the self from the physical body and claim to observe the world from a visuospatial perspective that differs from their usual bodily perception (Bünning & Blanke, 2005).

OBEs have been previously related to some neuropsychiatric conditions (Critchley, 1950; Hoepner et al., 2013), such as dissociative identity disorder (Mudgal, Dhakad, Mathur, Sardesai, & Pal, 2021), schizophrenia (Baum et al., 2022; Benson, Brugger, & Park, 2019; Thakkar, Nichols, McIntosh, & Park, 2011), borderline personality disorder (Pearse, Dibben, Ziauddeen, Denman, & McKenna, 2014), depersonalization (Ghaffari Nejad, Mehdizadeh Zare Anari, & Pouya, 2013; Jacobs & Bovasso, 1996), and other disorders of body-ownership (Blanke, Landis, Spinelli, & Seeck, 2004; Lopez, 2013; Lopez & Elzière, 2018; Riva, 2014). Other examples that OBEs might represent pathological dissociation phenomena come from findings that OBE experiencers (henceforth, OBErs) present significantly higher measures of somatoform dissociation, self-consciousness, body dissatisfaction, and lower measures of confidence in their physical self-presentation than respondents without a previous OBE (Murray & Fox, 2005). Another study found that both the occurrence and frequency of OBEs were predictive of somatoform dissociation—a pathological process (Irwin, 2000), and that OBErs had a higher prevalence during the childhood of intrafamilial sexual abuse, death or serious illness of a close friend, extrafamilial sexual abuse, numerous and substantial periods of isolation from friends or playmates, and assault than non-OBErs (Irwin, 1996). Other authors have been more clear about their positions regarding OBEs and described them as either a detachment phenomenon characterized by “alienation” of oneself or the external world, an absence or flattening of emotional experiences (Spitzer, Barnow,

Freyberger, & Grabe, 2006), or even a “self-induced depersonalization syndrome” (Kennedy Jr., 1976).

The general pathologization of OBEs can also be seen in the self-administered Structured Clinical Interview for Depersonalization/Derealization Spectrum (Mula, 2008), in questions such as: “Have you ever felt that parts of your body were disconnected from the rest of your body?”, “That your body was very light as if it were floating on air?”, “As if you were outside your body?”, “That you were a ‘detached observer’ of yourself?”. Likewise, the B-BODI scale (Benson et al., 2019), designed to measure schizophrenia-related body disturbances, contains questions such as “I have sometimes had the feeling that one of my arms or legs is disconnected from the rest of my body”, “I have had experiences (not related to drugs) where I felt as though I was floating through the air or being transported through time”, “I have had an ‘out of the body’ experience during which my mind seems to, or actually has, left my body”, among others.

However, alterations in bodily consciousness are not necessarily indicative of, or restricted to, an underlying psychopathology (Braithwaite & David, 2016; Braithwaite, Watson, & Dewe, 2017; Moreira-Almeida & Cardeña, 2011; Sellers, 2019). For instance, a study has failed to demonstrate significant differences in pathology between OBE and non-OBE groups in five psychological test scales, including measures of “psychoticism” and “hysteroid” propensities, and the OBE population was similar in mental health to a group of college students and significantly healthier than a comparison group of psychiatric patients (Gabbard, Twemlow, & Jones, 1982). Another study found that OBE subjects had significantly greater emotional health than the patient group and the transcendental meditation trainees and better emotional adjustment than the control group of randomly selected college students (Twemlow, 1989).

Perhaps even more puzzling to the idea that OBEs have an underlying psychopathologic process is the finding that OBEs may have a profound positive influence on the individual's subsequent life. One study found that 55 % of subjects who have had an OBE said their life was changed by the experience, 71 % said it was an experience of lasting benefit, and 40 % of the subjects considered it to be the greatest thing that ever happened to them (Gabbard et al., 1982). Another study found that percipients felt that OBEs were deeply life-enriching experiences, generating enduring and novel perspectives of self-identity, reality, and death/dying, which were associated with decreased fear of death, increased inner peace, new life perspectives, greater self-awareness, a sense of individuality, re-evaluated relationships and affirmed or new spiritual beliefs (Shaw, Gandy, & Stumbrys, 2023).

The data presented above suggests that the term OBE appears to be employed as a definition encompassing a wide spectrum of encounters, with some being associated with neuropsychiatric conditions and others not. Nevertheless, it is worth noting that the existing literature lacks comprehensive studies that differentiate between pathological OBEs, those linked to medical or psychiatric disorders, and nonpathological OBEs, those that occur without any underlying health issues. In light of the absence of well-defined criteria distinguishing between pathological and nonpathological OBEs, mental health researchers rely more heavily on the convergence of alternative indicators of mental illness. These indicators include the presence of psychological suffering, social and occupational adjustment, and psychiatric comorbidities (Damiano, Machado, Loch, & Moreira-Almeida, 2021; Moreira-Almeida & Cardeña, 2011). On the contrary, non-pathological experiences are characterized by positive personality traits, social adjustment, control over the experience, absence of suffering or impairment brought on by the experience, and possession of a cognitive framework and social network that aid in understanding and coping with the experience (Machado & Moreira-Almeida, 2021). Therefore, the sole presence of OBEs may not be a suitable parameter for the differential diagnosis between psychiatric disorders and non-pathological phenomena; cognitive and

interpersonal dysfunction seem to be better criteria. As mental health researchers, it is incumbent upon us to be thoroughly familiar with the range and diversity of human experience, respecting and differentiating unusual but integrating experiences from those that are distressing and disorganizing (Foe, 2012; Moreira-Almeida & Lotufo-Neto, 2017).

In this context, to investigate the relationship between OBEs and mental health, we assessed the clinical characteristics of individuals who had OBEs, employing various indicators of mental health. The null hypothesis in our noninferiority testing is that scores of mental health in OBEs are inferior to those of non-OBEs; the alternative hypothesis is that scores of mental health in OBEs are noninferior to those of non-OBEs (Table 1, Fig. 1).

## Section snippets

## Ethics information

This research study has received full approval from the IRB of our Institution. As part of the ethical protocol, all participants involved in the study were required to provide online written informed consent. No compensation was provided to participants for their involvement in the study.

## Design

In the present study, our objective was to investigate the neuropsychiatric profile of individuals who experienced OBEs. To accomplish this, we utilized an online survey methodology using Qualtrics and

## Demographics

To ensure data quality and participant validity, we implemented strict exclusion criteria. Participants were removed from the dataset if they exhibited excessively fast response times (under 300 s), failed to complete the survey fully, scored below 0.7 on the reCAPTCHA test, possessed a duplicate ID, or presented a fraud score exceeding 40 %. These measures, provided by Qualtrics, were critical for mitigating potential bots and disengaged respondents. Table 2 shows the demographic

## Discussion

In this study, we assessed whether the mental health profiles of individuals experiencing OBEs are different from those of a sample of the general population, as measured by a battery of well-known psychopathology instruments. Contrary to our initial hypothesis, we find that the null hypothesis of noninferiority could not be rejected concerning common mental disorders (SRQ-20), social and interpersonal functioning (SAS-SR), experiences of pathological dissociation (DES-T), childhood

## Conclusion

In conclusion, we found that individuals reporting OBEs exhibited statistically worse mental health scores and a higher prevalence of psychiatric diagnoses compared to non-OBEs. The clinical significance of the observed differences, however, remains unclear, given the several methodological challenges of this sort of investigation. Moreover, the elevated trauma scores observed among individuals who report OBEs, along with evidence of their psychologically transformative effects, are consistent

## CRedit authorship contribution statement

Marina Weiler: Methodology, Conceptualization, Writing – review & editing, Writing – original draft. Alexander Moreira-Almeida: Conceptualization, Writing – review & editing, Writing – original draft. Martin M. Monti: Conceptualization, Writing – review & editing, Writing – original draft.

## Code availability

The codes used in data collection, analysis, and any relevant algorithms or software developed for this study are shared with the scientific community on Open Science Framework.

# The efficacy of psychotherapeutic interventions for prolonged grief disorder: A systematic review

Author links open overlay panel

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## Highlights

- Cognitive behavioral therapy (CBT) is the most effective intervention for Prolonged Grief Disorder across populations.
- Internet-delivered CBT shows promising treatment effects with high adaptability.
- Combination therapies do not consistently improve upon standard CBT approach.
- Diverse therapeutic methods demonstrate potential for personalized grief treatment.
- Limited generalizability due to predominantly white, female high-income study samples.
- Evidence suggests the need for culturally adapted and tailored grief interventions.

## Abstract

Prolonged Grief Disorder (PGD), newly recognized in the ICD-11 and DSM-5-TR, represents a severe and persistent bereavement response that disrupts adaptive functioning. Characterized by intense yearning, preoccupation with the deceased,



and profound social and emotional disturbances, PGD is associated with adverse physical and mental health outcomes. While most individuals progress from acute to integrated grief, those with PGD remain entrenched in maladaptive grief patterns. With prevalence estimates ranging from 9.8 % to 34.3 % in bereaved populations, especially following traumatic or sudden losses, the need for effective interventions is urgent.

This systematic review examines the efficacy of psychotherapeutic interventions for PGD across 30 randomized controlled trials published between 2011 and 2024. Cognitive Behavioral Therapy (CBT) emerged as the predominant and most effective approach, demonstrating versatility across individual, group, and internet-based formats. Innovations such as combining CBT with mindfulness, exposure therapy, or EMDR showed promise, particularly in addressing trauma-related grief. Alternative interventions, including music therapy and Accelerated Resolution Therapy, revealed potential benefits but require further investigation. Mindfulness-based therapies, while less prevalent, showed modest efficacy when integrated with CBT frameworks.

Findings emphasize the need for personalized, culturally sensitive treatments tailored to the diverse circumstances of grief. The success of internet-delivered interventions highlights opportunities to expand access, particularly in resource-limited settings. Despite progress, gaps remain in understanding the role of pharmacological adjuncts, long-term outcomes, and underrepresented populations.

This review underscores the importance of advancing therapeutic approaches to mitigate PGD's profound impact on individuals and communities, proposing directions for future research and clinical practice.

## Introduction

Grief is an inevitable and universal human experience that emerges from the loss of meaningful relationships. Prolonged Grief Disorder (PGD), also known as

“complicated grief” or “prolonged complex bereavement disorder” is a disorder that now included in the International Classification of Diseases 11th Revision (ICD-11) (WHO, 2018) and has been added to the Diagnostic and Statistical Manual of Mental Disorders, fifth edition, text revision (DSM-5-TR) (Sekowski and Prigerson, 2022). A defining characteristic of PGD, is severe bereavement that persists for more than a year after a loss in adults and 6 months in children and adolescents. Key diagnostic criteria include intense yearning and longing for the deceased person, along with persistent preoccupation with thoughts or memories of them. In children and adolescents, this preoccupation may specifically center on the circumstances of the death (APA, 2022). Limited acceptance of the loss, social disconnection, isolation, diminished sense of self, inability to find meaning in life, and persistent preoccupation with the deceased are additional diagnostic criteria that people experiencing PGD may exhibit (Prigerson et al., 2021).

Grief is defined as the “emotional response to loss,” in contrast to mourning (the outward expression of grief and adapting to life after loss) and bereavement (defining the period of grief and mourning) (Mughal et al., 2023). Acute grief involves a temporary period of intense emotions characterized by rumination about the deceased, tearfulness, insomnia, and withdrawal from others. Most individuals experiencing acute grief eventually progress to integrated grief, where they resume their typical daily tasks and functioning (Mughal et al., 2023). However, patients with PGD demonstrate a persistent inability to transition from the intense emotions of acute grief to the adaptive state of integrated grief (Szuhany et al., 2021). These individuals experience grief-related difficulties that extend beyond typical cultural and/or religious expectations.

The prevalence of PGD in adults remains uncertain. A meta-analysis examining prolonged grief disorder across four continents, using a different definition requiring at least 6 months post-loss, found a pooled prevalence of 9.8 %. However, significant methodological variations between studies, including differences in

symptom definitions, measurement tools, and bereavement duration, affected these prevalence estimates (Lundorff et al., 2017; Prigerson et al., 2021; Stelzer et al., 2020). Most individuals (26–45 %) following the loss of a loved one have internal and external resources that allow them to effectively cope with the loss (Djelantik et al., 2017; Lundorff et al., 2017). However, recent events such as the COVID-19 pandemic, natural and man-made disasters, with their unprecedented global and domestic mortality rates and disrupted medical care and bereavement support systems, have created distinct challenges for both the dying and their survivors, suggesting these prevalence rates will likely increase (Prigerson et al., 2022). Recent studies show higher rates of prolonged grief disorder of up to 34.3 % in bereaved populations (Thieleman et al., 2023). Specific populations are more likely to experience PGD such as bereaved parents, spouses, and siblings (Thieleman et al., 2023). Also, multiple risk factors have been identified as potential contributors to the development of PGD, including pre-existing grief symptomatology, depressive manifestations, bereavement of a child, attachment-related anxiety, and exposure to traumatic or sudden loss circumstances (Buur et al., 2024).

Research indicates that PGD itself may serve as a risk factor for adverse physical and mental health outcomes. Studies have found that traumatic grief symptoms present at 6 months after spousal loss predicted various health complications at 13- and 25-month follow-ups, including cancer, heart problems, hypertension, suicidal ideation, and altered eating patterns (Prigerson et al., 1997). Recent findings demonstrate a relationship between PGD symptom severity, depression, and suicidal ideation among bereaved individuals (Sekowski and Prigerson, 2022).

Given these identified risk factors and vulnerable populations, there is a pressing need to advance therapeutic approaches for PGD. While research examining therapeutic efficacy for PGD remains in early developmental phases, understanding the spectrum of interventions is essential for developing targeted treatment

protocols, mitigating stigmatization, and facilitating help-seeking behaviors among affected individuals.

Understanding interventions for PGD is crucial for several reasons. By evaluating the effectiveness of PGD interventions, clinicians can develop more personalized and targeted treatment plans for their patients. Analyzing intervention outcomes helps validate successful treatment approaches while identifying areas that require further research. A comprehensive review of current interventions and their population-wide impact can improve long-term patient outcomes by highlighting the most beneficial strategies and encouraging those in need to seek treatment with greater confidence in evidence-based methods.

Below we review the current literature on psychotherapeutic interventions for complicated grief. This systematic review evaluates various approaches including cognitive behavioral therapy, cognitive narrative intervention, and mindfulness and contemplative based interventions. While our primary focus is on psychotherapeutic interventions, we touch briefly on psychopharmacology with one study. By examining the relative efficacy of different psychotherapeutic intervention types and their impact on PGD outcomes, we aim to propose directions for future research and therapeutic approaches.

Section snippets

Methods

This systematic review was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines (Moher et al.,

2010). The review examined research literature published between January 2011 and May 2024 investigating psychological interventions for PGD.

We included studies conducted before PGD was added to diagnostic manuals because these earlier studies used the same assessment scales (such as ICG and PG-13) and similar cutoff points to identify

## Results

A total of 962 articles were identified. After removing duplicates, 458 articles remained and underwent initial screening based on title and abstract. Subsequently, the full texts of 135 articles were retrieved for detailed assessment, resulting in 30 articles that met the outlined inclusion criteria for this systematic review. Fig. 1 presents the PRISMA flow diagram displaying the number of studies included in each phase of the selection process.

Among the reviewed studies, cognitive behavioral

## Discussion

This systematic review of 30 randomized controlled trials reveals several important patterns in the treatment of PGD. The predominance and effectiveness of CBT across multiple delivery formats suggests its versatility and robustness as a treatment approach. The success of internet-delivered CBT interventions, particularly during circumstances that limited in-person care such as the COVID-19 pandemic, highlights the potential for expanding access to effective grief interventions through

## Limitations

Several limitations of this systematic review should be noted. The studies demonstrated considerable heterogeneity in their outcome measures, making direct comparisons challenging. The varying follow-up periods across studies limited our ability to draw conclusions about long-term treatment effectiveness. Some studies were constrained by limited sample sizes, potentially affecting the generalizability of their findings. The limited diversity in study populations may restrict the

## Conclusion

This systematic review provides strong evidence for the efficacy of CBT-based interventions in treating PGD, while also highlighting the potential of newer therapeutic approaches. The findings support a flexible, personalized approach to treatment selection, with consideration for patient preferences and resource availability. Further research is needed to refine our understanding of optimal

treatment matching and to develop more effective interventions for this significant clinical condition.

#### CRedit authorship contribution statement

Tara Srivastava: Writing – original draft, Investigation, Formal analysis, Data curation. Keegan Lee: Writing – original draft, Investigation, Data curation. Rebecca Ehrenkranz: Writing – review & editing, Writing – original draft, Investigation. Philip J. Cozzolino: Writing – review & editing, Writing – original draft, Investigation, Data curation. Fatma A. Wise: Writing – review & editing, Writing – original draft, Formal analysis. Madeline Burns: Writing – original draft, Data curation. Tess

#### Using Eye Movements to Signal the Onset of Self-Induced Out-of-Body Experiences (OBEs)

An out-of-body experience (OBE) is a phenomenon in which an individual experiences a detachment of their consciousness from their physical body. The neural mechanisms underlying OBEs remain elusive, primarily due to their unpredictable and spontaneous nature, making their study particularly challenging. Using individuals who can self-induce OBEs in a laboratory setting could be a fruitful avenue for advancing our understanding of the neural signatures and accompaniments of these experiences. However, a significant challenge associated with controlled OBEs is accurately determining the onset of the experience. In this pilot study, we investigated three participants who claimed to self-induce OBEs at will. We sought to determine whether they could report successful OBE self-induction within the confines of a laboratory environment. Furthermore, we aimed to assess the feasibility of using volitional horizontal eye movements as a



marker for the onset of the OBE, using an electrooculography (EOG) measurement. Throughout the experimental sessions, we identified room arrangement and environmental factors facilitating OBE self-induction. Two participants reported successful OBE self-induction. Importantly, we found that horizontal eye movements as measured with EOG could potentially serve as a time marker of OBE occurrence, as one of the participants reported generating the instructed eye movement pattern at OBE onset in all three of her sessions, which was corroborated by EOG traces. This research method opens up new avenues for further laboratory exploration and investigation into this intriguing phenomenon.

## **What out-of-body experiences may tell us about the mind beyond the brain**

### **Abstract**

The mind-body problem remains a central issue in the philosophy of mind. This paper examines how out-of-body experiences (OBEs) might provide insights into the relationship between the mind and body. Four interpretations of OBEs are considered. The first posits that OBEs arise from neural or sensory dysfunction, framing them as products of brain activity. From this perspective, OBEs are akin to other sensory or subjective experiences, with the mind and brain viewed as two aspects of the same underlying reality. Secondly, anecdotal evidence and some experimental evidence may suggest that the mind can perceive distant information or 'project' to distant locations, which would suggest the non-locality of consciousness. Thirdly, anecdotal reports of OBEs occurring in clinical settings while the brain is not functioning normally pose the question of the independence of the mind from the brain. Finally, subjective feelings of survival, as well as OBEs occurring around the time of clinical death may constitute support for the 'survival' hypothesis. The

present paper aims to demonstrate the relevance of OBEs to the debates on the mind-body relationship, by showing and discussing evidence that has given weight to the various views.

Exploring the transformative potential of out-of-body experiences: A pathway to enhanced empathy

Abstract

Out-of-body experiences (OBEs) are subjective phenomena during which individuals feel disembodied or perceive themselves as outside of their physical bodies, often resulting in profound and transformative effects. In particular, experiencers report greater heightened pro-social behavior, including more peaceful relationships, tolerance, and empathy. Drawing parallels with the phenomenon of ego dissolution induced by certain psychedelic substances, we explore the notion that OBEs may engender these changes through ego dissolution, which fosters a deep-seated sense of unity and interconnectedness with others. We then assess potential brain mechanisms underlying the link between OBEs and empathy, considering the involvement of the temporoparietal junction and the Default Mode Network. This manuscript offers an examination of the potential pathways through which OBEs catalyze empathic enhancement, shedding light on the intricate interplay between altered states of consciousness and human empathy.

Introduction

*“My husband was working outside of the country. It was an unusual day as it was raining heavily. We really needed the rain. I put my children to bed with the usual bedtime stories and songs. I got into bed and was reading my book. I can never go to sleep without reading my book. I then found myself standing at the end of my bed. I was looking at me....the ‘Meatsuit’ ....sitting*

*up....holding a book. My first thought was.... 'that ....is not me'! This is me! There was someone else standing behind me to my left. It was a Male energy. But at the time I didn't know who he was. He spoke to me ... telepathically... and said ... 'Do you want to go on a fun-filled trip to the stars?' I said ... 'Yes'! (I have no idea why). We began very slowly floating upwards. We went through the ceiling into the loft. I recognized everything in the loft. We then floated above the house. I remember thinking 'Wow! It's raining and I'm not getting wet!' Instead of thinking 'How am I floating about my home?' Then in an instant, I became part of the Universe. I felt connected to everything. Connected to everyone. I was completely surrounded by 100 % unconditional love. I have never felt that before! I did not want to leave! I could see my home. I could see my children asleep in their beds. I felt unconditional love for my babies. But ... I didn't want to leave where I was. I knew my children would be OK. What I didn't realize was it wasn't my choice to make. In an instant ... I was slammed back into my physical body. I felt like I weighed a thousand pounds! So, so, so heavy! I realized at that moment that where I had been was our true Home. Not here. Not here on the Earth Plane. This is a place where we come to have experiences. To grow. To learn how to show LOVE. Then we go back.....HOME! To a place full of unconditional LOVE!"*

The excerpt above comes from an individual who perceived their consciousness as separated from their physical body—an out-of-body experience (OBE). This phenomenon can be defined as a subjective experience in which the person has the feeling of existence without a physical body (*i.e.*, disembodiment), usually accompanied by various phenomenological features, such as differing degrees of lucidity, realism, control of actions, anomalous cognition, emotional content, among others (Weiler et al.,). OBEs occur in roughly 15 % of the population (Blackmore, 1982, de Boer, 2020), and can manifest spontaneously, in life-threatening circumstances such as near-death experiences (Charland-Verville et al., 2020,

Greyson, 1983), or be induced through sensory deprivation/stimulation, hypnosis, or psychedelic compounds (Juszczak, 2017, Hashimoto, 2020, Facco et al., 2019).

Importantly, the experiencer explains that the experience generated a change of perspective and purpose in life, that may subsequently have had a long-term impact on their relationships. As exemplified in the report, such experiences can be very profound, exerting a marked and lasting impact on individuals' lives, precipitating shifts in attitudes, heightened prosocial behavior, and even profound alterations in worldview beliefs (Sellers, 2019, Shaw et al., 2023). However, the relationship between OBEs and empathy remains a complex and understudied area. While some research suggests a potential connection between OBEs and enhanced empathy, the mechanisms underlying this relationship are not yet fully understood and more studies are needed to explore the extent of the effects of OBEs on empathy and to elucidate the underlying psychological and neurobiological mechanisms.

This manuscript embarks on an exploration of OBEs as transformative experiences capable of instilling and augmenting empathy in individuals who undergo them. We posit that this phenomenon arises from the dissolution of the ego, facilitated by the shift in perspective inherent in OBEs, thereby fostering a profound sense of unity and interconnectedness with others. Through a comprehensive examination of this mechanism, we aim to shed light on the potential of OBEs to nurture empathy and promote deeper connections among individuals. In conducting our literature search, we did not adhere to any specific guidelines.

Section snippets

## OBEs as transformative experiences

**Due to their strong impact on experiencers, OBEs have been classified within the more general categories of exceptional human experiences (Palmer and Hastings, 2013, Sagher et al., 2019, Brown, 2000), transformative experiences (Chirico et al., 2022), spiritually transformative experiences, or non-ordinary transcendence experiences (Sellers, 2019). These equivalent types of experiences are so impactful that they typically rank among life's most profound moments (Yaden et al., 2017).**

## The impact of OBEs

**OBEs are typically reported to have a profound impact on experiencers. They are often so impactful that individuals usually struggle to describe them, and commonly use words such as 'life-changing,' 'extraordinary,' 'ineffable,' 'mind-blowing,' 'benevolent,' and 'epic' to capture their essence (Shaw et al., 2023). To quantify, 55 % of individuals who had an OBE reported that their life was profoundly changed by the experience, 71 % described it as an encounter of lasting benefit, while an**

## From ego dissolution to oneness and empathy

The profound impact of an OBE likely stems from a key phenomenological characteristic that names the experience, *i.e.*, the disembodiment feeling. This sensation of disembodiment characterizing OBEs is likely at the root of the experience of loss of self, or ego dissolution (Chirban, 2000), which is a fundamental aspect of OBEs (Shaw et al., 2023, de Boer, 2020). In this sense, an OBE represents an exceptionally intense form of physical self-loss, as individuals feel literally severed from their

Potential neural mechanisms of prosocial behavior in OBEs

As noted above, embodiment, body ownership, self-location, and first-person perspective serve as fundamental pillars of bodily self-consciousness (Gallagher, 2000, Seghezzi et al., 2019). A substantial body of evidence has correlated the sensation of embodiment (Arzy et al., 2006), self-location, and first-person perspective (Ionta et al., 2011, Ionta et al., 2014), as well as body ownership (Limanowski and Blankenburg, 2016) with a specific brain region known as the temporoparietal junction

Conclusion and future directions

Research suggests that OBEs can enhance pro-social behavior and empathy. We propose that this occurs through the process of ego dissolution, which follows the intrinsic feeling of disembodiment experienced in OBEs. The detachment from the physical body often leads to a sense of

interconnectedness with all life and a deepened emotional connection with others during the experience. These sensations of interconnectedness can persist beyond the experience itself, reshaping the individual's

## **Narrative review of the potential for psychedelics to treat Prolonged Grief Disorder**

### **Abstract**

Prolonged Grief Disorder (PGD) is distinct from yet related to non-pathologic grief, depression, addiction, and Post-Traumatic Stress Disorder (PTSD) with a prevalence of up to 10% in bereaved populations. Hallmarks of PGD include functional impairment a year or more post-bereavement and intense yearning for the deceased. Current treatments for PGD are typically psychological rather than psychopharmacological, and more treatment options are needed. Psychedelics such as psilocybin and MDMA may be a promising treatment avenue for PGD. Randomized clinical trials demonstrated the efficacy of psilocybin in reducing symptom severity in depression and MDMA in reducing PTSD symptomatology. Furthermore, psychedelics often produce subjective effects (such as transcendence, mystical experiences, and a sense of oneness) that may be uniquely relevant to the existential distress experienced in PGD. No randomized clinical trials have thus far been conducted on the safety and efficacy of psychedelics for PGD. Initial research, including survey-based studies and an open-label trial, has begun to shed light on the possible benefits of psychedelics in the alleviation of grief. While the evidence from these studies is preliminary, it suggests a consistent trend towards the effectiveness of psychedelics in grief reduction. Conducting a randomized



clinical trial would be an appropriate next step to explore the potential efficacy of using psychedelics to treat PGD.

What do the cases of the reincarnation type tell us about the mind beyond the brain?

## **Abstract**

Cases of young children who report memories of a previous life have been the focus of systematic study for the past 60 years. Over 2500 cases of this worldwide phenomenon have been investigated. In the strongest cases, children have provided details that proved strikingly accurate for an individual who lived in the past, sometimes at a great distance from the child's family. This overview includes a set of case reports that demonstrate the phenomenon, followed by a review of the types of evidence in the cases of an anomalous connection between the child and the deceased individual. Explanations for the phenomenon are then considered.

## **Medical Stress and Fear of Death and Dying in a Medical Patient Population**

### **Abstract**

We explored the relationship between medical illness-related stress and fear of death and dying in a population of individuals with self-reported medical illnesses. Medically ill participants identified their level of stress related to their medical condition, their level of fear of death and dying, and what treatments they would most prefer for addressing any fear of death and dying as well as their medical illness-related stress. Participants' medical illness-related stress levels were high with an average endorsed score of 7.23 out of 10 (most extreme stress). The majority (70%) of participants endorsed "some," "a little," or "no fear" of death and dying. Overall, reported medical

illness-related stress was not significantly correlated with fear of death and dying. Seventy-five percent of participants reported preferring psychotherapy or mindfulness interventions for addressing their stress. Psychotherapy, anti-anxiety medications, and meditation were the top three choices for addressing fear of death and dying.

## **Neural filters to conscious awareness and the phenomena that reduce their impact**

### **Abstract**

In this review, we examine studies suggesting that conscious or mental awareness is constrained by our neural filters. These filters include sensory receptors, the ascending reticular activating system and the thalamus, the default mode network, and left hemisphere language centers. These filters limit our perception of the world to a narrow range of energy frequencies, make sense of space and time, and prioritize internally generated narratives (associated with language and conceptuality). We then present studies indicating that when the activity within these filters is reduced or absent—such as in near-death experiences, deep meditation, or the use of psychedelic compounds—we may gain access to a wider awareness, experience transcendence of time and space, and ego dissolution. This expanded

state might enable the mind to potentially access intuitive, nonlocal information beyond the limitations of the five senses.

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## **Title**

Animals and Near-Death Experiences.

## **Authors**

[Greyson, Bruce](#)

## **Abstract**

Defining consciousness in human beings is a challenge; consciousness in nonhuman animals is even more controversial because animals cannot communicate using human language.



Nevertheless, scientists have studied animal consciousness through behavioral tests of their self-awareness. The evidence from a variety of studies suggests that at least some nonhuman animals may have consciousness analogous to that of humans. Testimony from humans who report encountering deceased pets in their near-death experiences suggests that the consciousness of deceased pets may survive their bodily death. This possibility raises the question of whether animals might have near-death experiences analogous to those of humans. Behavioral observations of animals on their deathbeds and behavioral changes in animals following close brushes with death suggest that animals may, indeed, have near-death experiences.

**'Altered states of consciousness' discusses the states of consciousness during sleep, dreaming, hallucinations, out-of-body experiences, near-death experiences, meditation, and after taking psychoactive drugs. Psychologist Charles Tart defines an altered state of consciousness (ASC) as 'a qualitative alteration in the overall pattern of mental functioning, such that the experiencer feels his consciousness is radically different from the way it functions ordinarily'. This certainly captures the idea of ASCs, but also creates problems, such as knowing what a 'normal' state is. In both mystical experiences and long-term meditation, people describe seeing through the illusions of duality and seeing the world as it truly is.**