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# Out of body experiences: Scoping review

Jenny Moix [a,b,1,*], Samantha Baldaccini [a,b,2], Marta Isern [a,b,2]

[a] Faculty of Psychology, Universidad Autónoma de Barcelona, Spain
[b] Edifici B. Campus de la UAB 08193 Bellaterra. Barcelona. Spain

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ABSTRACT

*Background:* Despite the growing body of scientific research on Out of Body Experiences (OBEs), a scoping review has not yet been conducted.
*Method:* A search was conducted across six databases. Studies published between 1987 and 2024 were included, resulting in the selection of 87 publications. The analyzed factors included deliberate inducing, predisposing, precipitating, consequential, phenomenological, and physiological factors.
*Results:* OBEs can occur spontaneously, be self-induced, or induced through different methods. Experiences such as sleep paralysis, or lucid dreaming can facilitate OBEs. They can be triggered in various situations. The reactions to OBEs vary widely: some individuals fear their recurrence, while others welcome these experiences. OBEs are highly idiosyncratic, often accompanied by a strong sense of reality. Explanatory hypotheses for the nature of OBEs include psychological, physiological, and non-local consciousness perspectives.
*Conclusions:* OBEs are a complex phenomenon that requires further understanding to normalize and expand the current conception of consciousness.

## Introduction

Humans have experienced out-of-body phenomena since ancient times. Descriptions of this complex phenomenon are found in most cultures.[1] They are documented in the writings of ancient philosophers such as Plotinus, Proclus, and Philo of Alexandria.[2–5] Even the Bible might contain accounts of such experiences.[6]

Since OBEs encompass a range of experiences, we adopt the definition proposed by Campillo-Ferrer et al.,[7] which focuses solely on the phenomenological trait common to all OBEs: the subjective experience of being located outside one's physical body.

The prevalence of this phenomenon is estimated to be between 10 % and 20 % of the population,[8] and the precipitating factors can vary significantly in each case.[9]

OBEs can be spontaneous but also induced through different methods. Sometimes, both types of experiences (spontaneous and induced) seem to differ in some ways. One of the essential differences is that, while in spontaneous cases subjects tend to state that their experiences seemed more real than a dream, this impression is not always present in induced cases.[10] Precisely because of these differences, Alvarado analyzed them separately: he reviewed induced OBEs in 1982 and spontaneous OBEs in 1988. In both cases, he noted that research findings were inconsistent or contradictory regarding the factors and mechanisms involved.

This phenomenon challenges our conception of self and its relationship with consciousness, which has led to the development of multiple theories and approaches to explain it. In general terms, theories about OBEs can be divided into two broad categories. The first posits that the experience involves an actual separation between consciousness and the physical body, assuming the existence of a non-physical entity, such as a subtle body or even consciousness itself, capable of leaving the body. From this perspective, consciousness would not be located in the brain but could exist independently and move through the physical environment. The second category interprets OBEs as internally generated mental phenomena, attributing them to imagination, dreams, hallucinations, or other cognitive processes, without any real detachment

* Corresponding author.
*E-mail address:* Jenny.moix@uab.cat (J. Moix).

[1] The primary or corresponding author conceived the objectives of the study, formulated the design, oversaw the literature review, and managed the categorization of information. Collaboratively, with the remaining co-authors, they engaged in comprehensive discussions regarding the results. The first author took the lead in drafting the article.

[2] The second and third co-authors executed the bibliographical search, extracted, and classified the acquired information, and contributed actively to the interpretation and discussion of the results. Additionally, they meticulously reviewed the final article.

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from the physical body.[11,12]

Given that research on Out-of-Body Experiences (OBEs) has been conducted across various disciplines, ranging from neuroscience and cognitive psychology to phenomenology and transpersonal studies, using diverse methodologies and conceptual frameworks, the resulting body of literature is vast, fragmented, and often difficult to synthesize. This dispersion makes it challenging to form an integrated understanding of the phenomenon, highlighting the need for a structured overview.

An initial search in the Web of Science, the Cochrane Database of Systematic Reviews, and the Joanna Briggs Institute (JBI) Evidence Synthesis did not identify any scoping reviews on this subject. Since research began on this phenomenon, in the reviewed databases there have only been six reviews: five from the 1980s and 1990s[11–15] and a more recent one by Sellers.[10] None of these can be considered scoping reviews, as they do not follow the specific methodology required for this type of review.

For these reasons, the objective of this research is to conduct a scoping review to systematically map the available literature and organize the information obtained.

## Material and methods

To carry out the scoping review, the five stages described by Willson[16] and the JBI Scoping Review Network[17] were followed: identifying the research question, identifying relevant studies, study selection, charting the data, and collating, summarizing, and reporting the results.

### *Questions reviewed*

The questions analyzed can be classified into eight blocks. Six refer to factors: deliberate inducing, predisposing, precipitating, consequential, phenomenological and physiological factors; and two refer to: theories and therapeutic aspects.

Each of these categories is described as follows:

- Deliberate inducing factors: intentional procedures for induction.
- Predisposing factors: personality or psychopathological characteristics.
- Precipitating factors: internal or external circumstances.
- Consequential factors: consequences on an emotional or cognitive level.
- Phenomenological factors: sensations, emotions, and cognitions during the experience.
- Physiological factors: anatomy or brain function.
- Theories: ontological hypothesis proposed.
- Therapeutic aspects: How to interpret and enhance OBEs from a therapeutic perspective, and how to normalize them in people who experience them with fear or perceive them as a disorder.

### *Inclusion criteria*

To ensure the replicability of the scoping review, specific inclusion criteria were established. Research involving subjects who had experienced OBEs was included, while studies focusing solely on participants who had undergone the phenomenon in near-death situations were excluded. These cases, known as Near-Death Experiences (NDEs), exhibit distinct phenomenological complexity and possess their own idiosyncrasies, which differentiate them from spontaneous or induced OBEs in other contexts. As such, they are typically analyzed as separate phenomena.[15,18,19]

Likewise, studies involving experiences induced by virtual reality or other perceptual manipulations were excluded, as their phenomenology is less complex and lacks the emotional intensity and strong sense of reality of spontaneous or non-technological OBEs. For this reason, researchers classify them as OBE-like experiences.[20]

### *Types of sources*

This scoping review included experimental, quasi-experimental, and observational studies (both analytical and descriptive), as well as theoretical articles.

### *Search strategy*

The search strategy was centered on finding published articles. An initial limited search was carried out in Psicodoc and the Web of Science to identify articles on this subject. The words contained in the titles and abstracts were used to develop the final search strategy in Psyinfo, Psicodoc, PubMed, PubPsych, Scopus, and the Web of Science. Given that Alvarado's reviews[11–15] provide extensive coverage of studies published in the 1980s and earlier, this review was delimited to include the most recent articles published in French, English, and Spanish from 1987 to 2024. This starting point ensures that the review builds upon, rather than replicates, prior analyses and focuses on the most recent studies and their contribution to current knowledge

A single keyword was used: "Out of Body Experiences" (both in singular and plural), which had to be included in the title. The search was carried out during January 2025 by the second and third co-authors in parallel and systematically. The initial screening of the studies, taking into account the inclusion and exclusion criteria, was carried out by them based on reading the abstracts. The Mendeley document manager was used to introduce them sequentially, save them and eliminate duplicates. Following this, the final eligibility was decided after the three co-authors had read the full text. Finally, 87 articles were selected. The selection and screening process of the studies is shown in Fig. 1.

### *Information extraction*

An information sheet with 9 sections was designed. The first section was for the reference and the other eight for the information contained in the article about each of the categories (those described in section 2.1). The design of the categories was carried out by the first author, but before data collection, a discussion was held to clarify their meanings. This ensured that the second and third authors, who conducted the data extraction, did so with reliability and validity. Once the sheets had been filled in, the three co-authors agreed on subcategories (values or responses) for the eight established categories (questions). The subcategories were determined collaboratively by analyzing the extracted quotes and identifying common themes, which were then grouped accordingly.

## Results

Once the subcategories had been established, all the information was gathered in two tables. Table 1 contains the information for the first six questions (deliberate inducing, predisposing, precipitating, consequential, phenomenological, and physiological factors), and Table 2 the last two (theories and therapeutic aspects).

### *Deliberate inducing factors*

According to the information collected, there are different ways to induce OBEs. Self-induction occurs when the individual intentionally provokes an OBE. This method tends to be very personal. The subject is normally in a supine and relaxed position.[21–25] An example would be the description of the subject of research by Bova[22]: "I could predispose myself to producing or intensifying these near-OBEs by lying awake and peaceful in the quiet of the early morning and focusing on the faint vibrations when they arose".

Some individuals report the ability to self-induce OBEs during sleep paralysis by increasing their level of conscious awareness, similarly to how lucid dreams may arise when awareness increases during ordinary

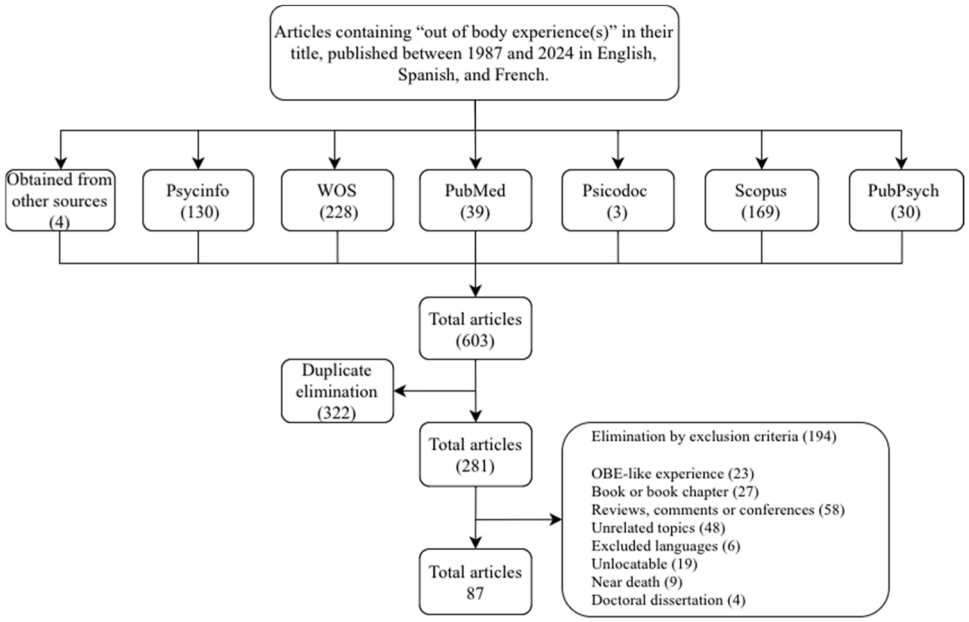


**Fig. 1.** Bibliographic search flowchart.

dreaming.[7,26]

Hypnosis can also induce OBEs, but there is no single hypnotic procedure.[27–30] One example would be: "Close your eyes and relax… Now you can begin to leave your body from the top of your head… and you can reach the ceiling of this room and see your body from there…". However, when analyzing this phenomenon, we must consider that, as Irwin[28] points out, hypnotically induced experiences might not be real OBEs.

Out-of-body experiences can be included in trance or shamanic and mystical experiences,[14,31,32] understanding these kinds of experiences as altered states of consciousness that can be induced by different methods according to the cultures and religions and which present a broad range of experiential manifestations. In these contexts, OBEs are often interpreted as spiritual experiences or as contact with other realities, facilitated by altered states of consciousness. For example, Baud[31] analyzes OBEs within shamanic practices as "spirit journeys" to other realms; Alvarado[14] reports experiences occurring in religious or mystical contexts, and Parra[32] documents cases where OBEs emerge during rituals, deep meditation, or contemplative practices.

Finally, electrical stimulation of different brain areas can trigger sensations commonly associated with OBEs. These stimulation procedures are typically carried out in clinical contexts and often involve invasive methods, such as the use of implanted electrodes. Reported symptoms include autoscopy, vestibular sensations, and the sensation of leaving the body.[21,33–39]

### *Predisposing factors*

It could seem that spiritual or less science-based beliefs can be predispositions for OBEs. Some studies show this.[32,40–43] However, this tendency has not been totally corroborated given that in other studies it has been shown that people with a scientifically-grounded belief system also experience them.[22,25,44,45]

According to some reviewed articles, some predisposing characteristics are the propensity for fantasy and the capacity for absorption[14,15,32,40,41,46,47]; and self-awareness (the capacity to recognize one's own emotions and moods).[48,45]

Some pathological symptoms that may be related to the tendency to have OBEs include dissociation[40,46,49,50,48,41,51,45]; schizotypal personality traits[52,41,32,53]; and sensory-perceptual changes and hallucinations.[41,32] Confirming OBEs as a dissociation strategy, Irwin[54] found that individuals who experience OBEs have a higher prevalence of childhood traumas.

The experiences of vivid dreams, dream paralysis or lucid dreaming can also be facilitators.[7,14,15,32,41,55–58] Frequent consumption of ketamine is another possible predisposing factor.[59]

All these potential predisposing factors must be interpreted with caution. Firstly, because for each variable, there are few studies, and the methodology and questionnaires used to evaluate the factors are heterogeneous. And secondly, because it is unclear in which direction the causality lies. For example, it is certainly plausible that a propensity for fantasy, the capacity for absorption, and self-awareness might increase the likelihood of experiencing an OBE. However, it is equally plausible that experiencing an OBE might enhance these characteristics. It may be more appropriate to refer to these as underlying factors rather than predisposing ones, given the uncertainty in causality direction.

### *Precipitating factors*

Situations that may induce OBEs can seem opposite. Sometimes they are caused by situations of calm, relaxation or meditation[14,15,60,34,40,23,61,25,62]; in others, they occur while concentrating during a repetitive activity such as archery[63]; and they can also occur while walking, driving or any other behaviors. At the other extreme, they occur during traumatic or stressful situations[14,15,51] such as very painful childbirth[64]; extreme fatigue[44]; or episodes of fainting.[65]

Psychotropic drugs consumption can also be a precipitating factor.[14,66] Some people also experience OBEs during sleep paralysis and, in some cases, as a strategy to cope with the anxiety typically caused by the inability to move. Other precipitating factors may include lucid dreaming, sleep onset, and narcolepsy.[7,26,55,67–69]

Episodes of migraine, epilepsy and fainting can also be precipitating factors.[21,33,37,39,49,60,70–72] However, not everyone who suffers from them has OBEs. For example, in the study carried out by Greyson et al.,[72] only 7 out of 100 patients with epilepsy described OBEs during the crisis.

### *Consequential factors*

In individuals who have experienced OBEs multiple times, the initial episodes are often accompanied by feelings of strangeness, confusion,

**Table 1**
Deliberate inducing, predisposing, precipitating, consequential, phenomenological and physiological factors.

| | |
|---|---|
| **Deliberate inducing factors** | |
| Self-induction | 7,21–26 |
| Hypnosis | 14,27–30 |
| Trance states, and shamanic and mystical experiences | 14,31,32 |
| Brain stimulation | 21,33,35–39 |
| **Predisposing factors** | |
| Beliefs | 22,25,32,40–45 |
| Absorption ability and propensity for fantasy | 14,15,32,40,41,46,47 |
| Self-awareness | 48 |
| Dissociation | 40,46,49,50,48,41,51,45 |
| Childhood traumas | 54 |
| Schizotypal personality traits | 52,41,32,53 |
| Hallucinations, sensory and perceptual alterations | 14,41,32 |
| Vivid dreams, dream paralysis or lucid dreaming | 7,14,15,32,41,55–58 |
| Regular ketamine use | 59 |
| **Precipitating factors** | |
| Supine position and relax | 14,15,23,34,40,60–62 |
| Meditation | 14,25 |
| Concentration and repetition | 63 |
| Any behaviors | 87,23,62 |
| Traumatic or stressful situations | 14,15,51,64 |
| Fatigue | 44 |
| Fainting | 65 |
| Psychotropic drugs | 14,66 |
| Sleep paralysis, Narcolepsy, Sleep onset, Lucid dreaming | 7,67,68,26,69,55. |
| Neurological and vestibular disorders | 60,70,21,33,60,37,71,72,49,61,39 |
| **Consequential factors** | |
| Fear | 22,25 |
| Transformative effects (change of world and self view, more empathy, decrease fear of death) | 31,22,73–75,61,25,77,76 |
| Dream increase | 56 |
| **Phenomenological factors** | |
| Vibrations and sounds | 22,26,55,74 |
| Floating | 78,64,21,33,60,35,22,7,36,79,55,53,25 |
| Ethereal body | 15,22,29 |
| A point of consciousness without body | 15,80,23 |
| Dual sensation of being in the body and outside it. | 15,81,74,53 |
| Connection to the body with a silver rope | 15,29 |
| Sense of reality | 15,34,7,67,74,23,53,76,25 |
| More vivid perception Visual predominates | 80,83,82,53,29,76 |
| Time distortion | 14,31,27,23,29,25 |
| Peace, Freedom, and sense of Unity | 14,44,34,27,40,23,29,76,25 |
| Fear | 34,68,40,23 |
| Travel or inspections to distance from objects, places or people. | 78,31,23,29,76,25; |
| Vision of people deceased | 23 |
| Precognitions | 22,32,23,61 |
| Telepathic sensations | 61,23 |
| Synesthesia | 23 |
| **Physiological factors** | |
| Temporoparietal junction | 60,70,21,34,86,35,7,36,37,71,69,1,24,76 |
| Temporal lobe | 103,84 |
| Frontoparietal network | 89 |
| Right angular gyrus | 33 |
| Right superior parietal lobe | 69 |
| Right prefrontal region | 84 |
| Insular cortex | 7,39 |
| Posterior cingulate cortex | 90 |
| Cortical excitability | 80,104,30 |
| Disruption of NMDA (N-methyl-D-aspartate) receptors. | 59 |
| Default Mode Network" (DMN). | 76 |
| Mirror Neurons | 69 |

**Table 2**
Theories, states and phenomena linked to consciousness, and therapeutic aspects.

| | |
|---|---|
| **Theories** | |
| OBEs as dissociative phenomena, or cognitive strategies for coping with traumatic events | 11–87,64,37,40,54,8,50,74,51,47. |
| OBEs as hallucinations or distorted perceptions resulting from somatosensory and vestibular integration alteration | 1,7,11,12,21,24,33,35,39,41,49,52,56,59,60,69,70,80–82,86 ,88–91,102 |
| OBEs as the projection of an ethereal or subtle body | 11,29 |
| OBEs as experiences of non-local consciousness | 83,84,92,93,101 |
| **Therapeutic aspects** | |
| How to help people experiencing OBEs | 15,22,95,61 |
| OBEs as therapy for traumatic situations | 25 |
| OBEs as therapy for sleep paralysis | 7,26 |

and even fear.[22,25] However, if the experience is accepted and not perceived as pathological, transformative effects can be observed: individuals tend to undergo a profound shift in their worldview and self-perception, their empathy increases, and their fear of death diminishes. In general, life begins to be seen from a broader and more meaningful perspective, leading to a reduction in the significance of everyday problems.[22,25,31,61,73–77] Another possible consequence is an increase in the frequency and intensity of dream experiences.[56]

### *Phenomenological factors*

The experience of feeling out of one's body is very idiosyncratic. However, there are some generalized characteristics. The impression of vibrations in the body and perceptions of sounds is quite common, especially before the experience starts and just after it has begun.[22,26,55,74]

During the experience, subjects frequently report a sensation of floating.[78,64,21,33,60,35,22,7,36,79,55,53,25] Sometimes the floating body is described as an ethereal body,[15,22,29] others as a point of consciousness.[15,80,23] It can also be the case that the person feels like they are in their own body and in a "subtle body" at the same time.[15,81,74,53] In some cases, subjects described a silver cord connecting the ethereal body to the physical body.[15,29]

Sometimes this other state is experienced as being more real than reality.[15,34,7,67,74,23,53,76,25] Perception is clearer and more focused. Visual perception predominates.[80,82,53,76] Colors are brighter.[29] In some cases, it is possible to see through objects or walls.[83]

On some occasions, the visions reported during out-of-body experiences have been compared with external information. For example, Sellers[23] documents a case in which an individual, during such an experience, claimed to have perceived details about a murder that occurred in another country. These details were recorded in a notarized statement dated prior to the public disclosure of the case. In another example, Persinger[84] documented a series of experiments in which a subject, under controlled conditions, demonstrated statistically significant ability to access hidden information, such as describing unknown individuals by touching their photographs, while neurophysiological correlates were recorded. Weiler & Acunzo,[85] in their review, describe OBEs reported in clinical contexts such as cardiac arrest or coma, where subjects perceived detailed events despite severely impaired brain function. These cases are supported by medical testimonies and

physiological data. However, the same authors note that controlled experiments designed to test the accuracy of such perceptions have yielded ambiguous or inconclusive results.

It would seem that perception goes beyond the senses in certain OBEs, where individuals report accessing information without relying on traditional sensory input. The case studied by Sellers[23] illustrates this phenomenon, as the subject describes navigating and perceiving their environment in ways that transcend normal physical sensations:

*I can't read through my physical eyes. Only through touch and feel. I am only able to read through the shape of air and thoughts. I get oriented through touching at distance as my whole consciousness is extended in space. I don't have to physically see the object to know what it is.* (p.696)

In this other reality, sometimes, time and space do not exist or are experienced very differently from the usual way. Jimmy, the subject under study by Bova[22] explains, with reference to OBEs: "They provide a comfortable sort of window into my eternity, that whole "other side" of my life that is perhaps an energy that transcends the wordily plane."

Peace, freedom and sense of unity are common feelings.[14,44,34,40,27,23,29,76,25] However, in some occasions these experiences can be accompanied by great anxiety,[34,40] especially because of the thought: "I won't be able to return to my body".[23] Fear is also common when experiences have been triggered by sleep paralysis.[68]

In some cases, there are even reports of having travelled to different spaces or dimensions,[78,31,23,29,76,25] or contacted other beings that have often communicated with them telepathically, sometimes with the dead.[23,61]

During OBEs, precognitions or retrocognitions (seeing events from the past or the future) may occur.[22,32,23,61]

Some individuals report unusual sensory experiences during OBEs, such as synaesthesia. For instance, in the case described by Sellers,[23] the subject reported that, while in an OBE state, musical notes were accompanied by vivid perceptions of colors and geometric shapes, stating, for example, that "each sound has its own color

### *Physiological factors*

On an anatomical level, as can be seen in Table 1, there are many areas of the brain that have been shown to have some involvement in OBEs. However, the area in which this involvement has been most corroborated is the temporoparietal junction. This conclusion is supported by several original empirical studies,[34,86,35,37,71,24] as well as by theoretical or speculative works that discuss the role of this brain region.[60,70,21,7,36,69,1,76] Stimulation of this area or alteration due to neurological problems causes the sensation of leaving the body, although not all the phenomenology of the experience. For example, if we distinguish between simpler OBEs, characterized by the feeling of separation from the body and sometimes autoscopic perception, and more complex ones involving perceived displacement to other places or encounters with beings, electrical stimulation seems to explain primarily the former.

Weiler et al.[76] explore in their review how physiological mechanisms may help explain the increase in empathy observed in many individuals who experience OBEs. According to the authors, this effect is attributed to ego dissolution and an enhanced sense of unity with the environment. On a physiological level, they hypothesize that it is due to changes in the activity of the temporoparietal area and the brain's default mode network.

The information extracted with respect to theories on OBEs and therapeutic aspects are presented in Table 2.

### *Theories*

From a psychological perspective, OBEs have sometimes been considered a strategy for overcoming traumatic events, a type of mental dissociation. Essentially, an OBE would serve to escape from a painful reality.[15,87,64,37,40,54,8,50,74,51,47]

According to more physiological theories, OBEs are distorted perceptions that are the result of an alteration in integration of somatosensorial and vestibular information.[1,7,11,12,21,24,33,35,39,41,102,49,52,56,59,60,69,70,80–82,86,88–91]

Other hypotheses are based on unconventional concepts within the scientific paradigm. In this review, we found four articles from this perspective, each contributing a different viewpoint.[83,84,92,93] However, we have included them under the label of "non-local consciousness" because their explanations deviate from the concepts of consciousness as a product of the brain, or something solely localized within the body.

Carruthers[92,101] argues that self-consciousness normally involves three aspects: the sense of ownership (feeling that the body is ours), the sense of embodiment (feeling that we are physical beings), and the sense of subjectivity (feeling that we are a subject who experiences things). These aspects are typically understood as generated by brain processes and closely linked to bodily experience. However, during an OBE, these components can dissociate or function in atypical ways. Carruthers points out that, during such states, individuals may perceive themselves as occupying two locations at once, which challenges the traditional view of self-consciousness as strictly bound to the physical body.

According to Brumblay,[83] recent theories in physics, such as string theory and M-theory, predict the existence of more spatial dimensions. If these dimensions exist, they would allow for the explanation of the visual perspectives described in OBE reports. Within the non-local consciousness hypotheses, we also find that of Pace & Drumm.[93] According to these authors, in OBEs, what "rises" or "moves" could be related to the concept of a "morphogenetic field". This field is understood as a kind of invisible energy that is within and around all living beings. During an OBE, the morphogenetic field would move outside the physical body, carrying with it the sense of self, thoughts, and perceptions.

Persinger,[84] through the analysis of an individual with a heightened ability to perceive accurate information about others without prior knowledge, found that this capacity was linked to OBEs and specific patterns of brain activity. It is suggested that these phenomena may be related to a form of consciousness operating as a field within a four-dimensional space-time framework, implying that information can be acquired through means beyond conventional sensory modalities. These specific patterns of brain activity can be influenced by magnetic and geomagnetic fields, suggesting that neuroelectromagnetic and neuroquantum interactions may play a key role in facilitating such experiences.[94,84,38]

Although spiritual perspectives cannot be considered theories in a strict sense, as they are not based on empirical data but on faith, they are now included in this section because they offer their explanation of OBEs. From this perspective, the body and the soul exist, and an OBE would be interpreted as the soul (subtle or ethereal body) leaving the physical body.[11,29]

### *Therapeutic aspects*

Some studies indicate that on experiencing OBEs many subjects feel very frightened, not so much because of the sensation but because of the strangeness it produces, the lack of control and the idea that they are going or appearing to be mad. For that reason, some authors emphasize the need to normalize the experiences, explain to the subject that other non-psychotic people also experience them, and even help them to take advantage of the experiences to know themselves.[22,95,61]

Sleep paralysis is a dissociative state that occurs during the transition between sleep and wakefulness, in which the individual is conscious and aware of their surroundings but unable to move voluntary muscles. It is often accompanied by vivid hallucinations and intense fear.[96] Some individuals report that, in response to this distressing experience, they have spontaneous OBEs as a way to escape the paralysis. Encouraging self-inducted OBEs could be an effective way of treating sleep paralysis[7,26]. Other psychological benefits that could be obtained include: a reduction in the fear of death, an increase in inner peace, a new

perspective on life, greater self-awareness, and a reevaluation of personal relationships.[25]

## Discussion

The objective of this scoping review has been descriptive in nature. Specifically, structuring the information through predetermined categories to obtain an approximate description of a complex phenomenon. The amount of existing information on this phenomenon is very vast, this work has not attempted to carry out a global analysis of it but has limited itself to extracting and analyzing the information from a time interval (years 1987–2024), without including information from books, nor other sources that were not articles. Additionally, some studies that do not include the phrase "out of body experience" in the title (which was our search criterion), but that have addressed the topic, have not been included in this review. The inclusion of books and other sources would have required a different and less structured search strategy, potentially compromising the reproducibility of the study and significantly increasing the volume of information to analyze, which, in turn, would have made the data processing overwhelming and practically unmanageable within the scope of a single article. Therefore, although the 87 articles reviewed provide extensive information, the findings of this review should be interpreted with the understanding that they do not represent a complete picture of the existing literature.

This review has included both spontaneous and induced OBEs. Alvarado conducted two separate reviews, one for spontaneous OBEs (1988) and another for induced OBEs (1982), because the underlying mechanisms and the idiosyncrasy of the experiences could be different. Studying them separately allows for a more precise analysis of these potential differences, which can provide deeper insights into the nature of OBEs. In this review, they have not been studied separately, which limits a thorough analysis of whether there are aspects in which differences between the two are confirmed. Overall, the objective of this study has been limited to organizing the information found in a structured manner to provide an overview of the phenomenon, rather than seeking relationships between factors.

Nonetheless, as already indicated in the results, OBEs induced by brain stimulation are characterized solely by the sensation of leaving the body. However, while this review was not conducted with the aim of directly comparing them to spontaneous OBEs, it has nonetheless revealed that induced OBEs tend to be fragmentary, with a distorted perception of the body in space, lack significant emotional intensity, and do not lead to transformative effects on the individual.

The complexity of the OBE phenomenon lies, as we have observed in the different articles, in that the experience itself is encountered in very different ways: it can be limited to the subject's view of his or her own body from an elevated position to the sensation of travelling to different places and contact with different beings. Its complexity also lies in its multitude of precipitating factors; the diverse ways in which they affect the individual, etc.

Given this diversity, it is not surprising that the hypotheses proposed are different: psychological, physiological, and based on non-local consciousness. Until the last century, psychological theories often categorized out-of-body experiences as hallucinations associated with hysteria or psychosis.[11,12,27] However, neither the review by Alvarado[14] nor this one show solid evidence of a correlation between the OBE phenomenon and psychopathology. It is true that some schizotypal traits found in individuals who experience OBEs may, in some cases, be indicative of pathology. McCreery & Claridge,[52] who found this correlation, used the term "healthy schizotypes" to refer to OBErs, asserting that individuals who experience OBEs are functional despite their experiences, or even, in part, because of them.

Since the 1970s, one of the explanations in psychology is based on the consideration of OBEs as a dissociative process, in other words as a coping strategy.[11,12] This hypothesis explains the cases in which the subject has experienced stress or trauma. For example, in the study by Bateman et al.,[64] it is demonstrated how some women experience OBEs during childbirth, and the authors suggest that it is a dissociative defense mechanism. By being out of their bodies, they do not feel pain and suffer with the same intensity. However, as evidenced in this review, many OBEs are not triggered by traumatic events.

On the other hand, the physiological hypotheses are mainly focused on explaining the feelings of rotation, elevation, and floating. From this physiological perspective, OBEs are usually understood as failures in information integration.[60,70,21,33,60,86] These hypotheses could very accurately explain the OBEs that occur in individuals who show neuronal and vestibular disorders. For example, Blanke and colleagues have demonstrated through various studies that disruptions in the temporo-parietal junction can induce sensations of disembodiment and the perception of being outside one's body.

Psychological and physiological hypotheses explain certain cases and aspects of OBEs, but they are still far from providing a complete explanation, especially for the more complex OBEs that include other phenomena such as telepathy, precognition, or 'travels' to other places. Probably for this reason, other hypotheses have emerged that, to encompass these phenomena, break with conventional scientific premises. In this review, we have found four hypotheses that can be included within what we have termed 'non-local consciousness.' As shown in the results, some hypotheses propose broader conceptions of self-awareness, relying on ideas such as morphic fields (a form of resonance proposed to allow information transfer between similar organisms), quantum dimensions (referring to models that link consciousness to non-local properties of space-time), and a neuro-quantum form of the brain capable of capturing electromagnetic energy from the environment.

These hypotheses are extremely far from being scientifically proven, but that does not mean they are worthless. At least, they serve to open us up to imagining other, broader conceptions that could help us understand the complexity of OBEs. As Weiler & Acunzo[85] conclude in their article, where they review physiological and non-local consciousness perspectives: *The view that OBEs can be fully explained by neuropsychological factors needs to be reassessed to encompass the full range of features that OBEs present.*

From a spiritual point of view, specifically, the conception that there is a soul in addition to the physical body, OBEs are explained as instances where the soul leaves the body. Some authors have hypothesized that the concept of the 'soul' may have its origins in the human experience of OBEs dating back to ancient times.[1]

An area that remains underexplored is whether frameworks beyond the traditional science/spirituality dichotomy could accommodate perspectives based on non-local consciousness. While integrating spiritual orientations with scientific models, such as those based on quantum physics, presents significant challenges due to their fundamentally different epistemological foundations, this remains an open question. Quantum physics, with concepts like superposition and entanglement,[97] offers a broader framework that could inspire new ways of thinking about phenomena described in both mysticism and spirituality—for instance, by allowing for non-local interactions or the idea that consciousness might not be strictly confined to the brain.

Although these parallels do not establish a direct scientific model that integrates spirituality, they suggest potential avenues for interdisciplinary inquiry. Future research could explore whether such intersections provide meaningful contributions to our understanding of consciousness and OBEs, or if they instead highlight the limits of current scientific paradigms.

In his 1988 review, Alvarado emphasized the need for a theoretical framework to better understand OBEs and guide future research. He also expressed hope that this gap would be addressed over time. Decades later, numerous experimental, quasi-experimental, and observational studies have been conducted, yielding a substantial amount of data. However, rather than converging into a unified theory, these findings have only led to a proliferation of disconnected hypotheses. According

to his review of various theories, Neppe[98] concludes that *'the limitations of all these models are that they hypothesize one single cause and outcome, whereas out-of-body experiences may have several nosological subtypes*.' He emphasizes the need for a multi-etiological approach that allows for the classification and analysis of OBEs based on their multiple causes and manifestations, rather than grouping them under a single generalized explanation.

We believe that theoretical research is needed to thoroughly analyze these different perspectives to identify potentially integrable aspects. We consider that this attempt at integration should be based on the idea that the different theories represent different levels of analysis. This is a very important challenge, as it requires researchers from all perspectives to open their minds and consider hypotheses that do not fit their current views. From our point of view, a phenomenon as complex as OBEs requires a great effort to begin to be explained. We are aware that our proposal is ambitious and not easy, but we believe that this approach could foster interdisciplinary collaborations and generate new hypotheses.

One possible way to open new avenues in the study of this phenomenon could involve legitimizing the interpretations of the individuals who have experienced an out-of-body experience. Research typically begins with hypotheses formulated by researchers, which are then tested empirically. However, an alternative perspective would be to explore the personal interpretations offered by those who have directly undergone the phenomenon. If OBEs are conceptualized as pathological, this approach is usually dismissed. However, if they are not necessarily seen as signs of dysfunction, it becomes possible to consider how the experiencers themselves interpret these events: do they perceive them as psychological, physiological, or transcendent phenomena? Following Husserl,[99] the aim would be to describe the experiences as they are given to consciousness, without imposing prior theoretical explanations. In fact, research is already being conducted along these lines.[100]

Research in this area is not only important to advance knowledge, and try to reach different conceptions of consciousness, but also to make the phenomenon known. We have seen how people who regularly experience it believe that they are going mad, or do not talk about it for fear of being labelled psychotic. If they went to the psychologist or physician, they would probably find themselves in front of someone who did not know about the subject. This phenomenon is not typically studied in university programs or mental health specializations. It is therefore important that both the general public and the health professionals know about OBEs, and that the latter know how to approach them therapeutically.

The analyzed information indicates that, in some cases, OBEs can change the subject's perspective on life and death, allowing them to significantly relativize everyday problems.[75] OBEs can therefore be therapeutic, and mental health professionals can help to reinforce this change in vital perspective. As many authors indicate,[15,22,95,26,61,25] it is important for health professionals to have a deep understanding of this phenomenon to normalize it and integrate it into therapy. For these reasons, it seems essential to include OBEs in studies of psychology, psychiatry, and other areas of health and cognitive sciences.

## Conclusion

Despite the increase in research on out-of-body experiences, there remains limited awareness and understanding of this phenomenon, particularly regarding its complex phenomenology, both among the general public and some health professionals. The main objective of this research has been to provide a comprehensive and structured overview of this phenomenon to contribute to its greater understanding.

While this was our primary aim, we also hope that the structured synthesis of the literature presented here may serve as a foundation for future efforts towards developing a deeper and more integrative theory of out-of-body experiences and, by extension, consciousness. Although proposing such a theory was beyond the scope of this review, we believe that mapping the current knowledge can highlight gaps and inspire more comprehensive theoretical frameworks in future research.

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## CRediT authorship contribution statement

**Jenny Moix:** Writing – review & editing, Writing – original draft, Validation, Supervision, Methodology, Investigation, Formal analysis, Conceptualization. **Samantha Baldaccini:** Writing – review & editing, Investigation, Formal analysis, Data curation. **Marta Isern:** Writing – review & editing, Investigation, Formal analysis, Data curation.

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