

## INTRODUCTION

- Little is known about encountering near-death experiences (NDEs) in the context of delirium.
- Prototypical characteristics of NDEs include feeling a deep sense of peacefulness, entering a gateway (e.g., a tunnel), seeing a bright light, experiencing a life-review, and meeting spirits or deceased individuals.
  - In NDEs, internal awareness is experienced during a period of unresponsiveness, which can be referred to as an episode of “disconnected consciousness.”
- NDEs in delirium are a rare phenomenon, but it has already received media attention after neurosurgeon Eben Alexander III, MD, in his book “Proof of Heaven,” described his own experience with NDE after overcoming *E. coli* meningitis-related delirium.
- Mechanical ventilation, sedation, analgesia, primary organ dysfunction, and dissociative and spiritual propensities have been associated with the emergence of NDEs.
  - Cognitive and spiritual factors have been found to outweigh medical parameters as predictors of the emergence of NDE.

## CASE PRESENTATION

A 33-year-old G3P2 woman with HIV and no past psychiatric or substance use history, experienced six cardiac arrests during an emergency cesarean section at 39 weeks of gestation. This occurred while under general anesthesia due to right ventricular heart failure secondary to a pulmonary amniotic fluid embolism. She required a multilobar thrombectomy, five days of extracorporeal membrane oxygenation, exploratory laparotomy, and hysterectomy for disseminated intravascular coagulation.

Psychiatry was consulted on postoperative ICU day 7 to assess for postpartum delirium. She reported somatic preoccupations, fluctuating attention, poor sleep, mild paranoia, and non-distressing visual hallucinations. She described **seeing angels** but was organized, not grossly psychotic, and not responding to internal stimuli. She was fully oriented and aware that she went into cardiac arrest during delivery and vividly described a NDE, described as a **sense of peace while entering a new place and meeting deceased relatives and a religious figure [“God”]**. She felt overwhelmed upon awakening to “the reality of life in this world,” however, expressed no death wishes or suicidal ideas. She reported relying on her faith as a coping mechanism and that her children were her primary reason for living.

The patient’s newborn survived with no major complications and the patient had a complete recovery with no evidence of anoxic brain injury. No standing psychotropics were prescribed during her hospitalization, but she received two doses of olanzapine 2.5 mg for agitation.

## Differentiating the clinical signs and features of delirium versus a near-death experience.

<u>DELIRIUM</u>	<u>NEAR-DEATH EXPERIENCE</u>
Inattention	Feeling a sense of peace
Disturbance of sleep	Seeing a bright light
Psychomotor changes	Transcending space and time
Cognitive changes	Empathic fusion with the whole world
Perceptual distortions	Clear perception of a reality beyond the ordinary world
Impairment of consciousness	Encountering deceased relatives or religious figures
Mood changes or emotional dysregulation	Distress, anguish, loneliness, despair

## NDE MODELS

- **Reductionist models** have attempted to neurobiologically and psychologically explain probable hypotheses for NDEs occurrence.
  - **Neurobiological hypothesis:** postulates that NDEs are a consequence of brain disorders (i.e., abnormal electrical activity in the brain; hypoxemia)
  - **Psychological hypothesis:** postulates that NDEs interpretations are based on the “expectation hypothesis”, with NDEs being a by-product of an altered mental state grounded in projections of beliefs and expectations of an afterlife.
    - Other psychological hypotheses are grounded in depersonalization, detachment, dissociation, personality factors, and memory of birth.
- **Non-reductionist models** have been guided by Western science exploring neurophysiological models of consciousness, providing evidence that NDE memories are processed in the brain like memories of real events.

## DISCUSSION

- NDEs stem from brain disorders or psychological reactions to a perceived threat when approaching death. Delirium is caused by brain dysfunction but remains a distinct phenomenon from NDEs.
- A 2012 analysis examined 8 out of 34 women who experienced NDEs during their complicated childbirth and discussed how these experiences are transpersonal in nature rather than a consequence of anesthesia or brain damage.
- Per literature, therapists and counselors have used information about near-death experiences to reduce suicidal thoughts, comfort people with terminal illnesses and the bereaved, and support soldiers going into combat.
- Providers should respect and validate patients with NDEs and provide active listening, emotional support, spiritual guidance, cultural sensitivity, psychiatric and medical care, integration therapy, education, and follow-up.

## CONCLUSION

- NDEs are usually associated with life-threatening conditions and can be encountered during delirium.
- From a therapeutic perspective, it is imperative to differentiate NDEs from delirium episodes and avoid the use and burden of undue pharmacotherapy and potential iatrogenic harm.
- Consultation-liaison psychiatrists should be aware of the possibility of NDEs during delirium episodes, use clinical judgment when prescribing medications, and provide holistic emotional support to patients who experience NDE.

## REFERENCES

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