

A SCOPE REVIEW OF PROLONGED RECALLED EXPERIENCES OF DEATH: “BEING ALIVE WHEN YOU ARE COLD AND DEAD”

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Background/rationale: The time limit given for successful resuscitation from cardiac arrest to occur is generally set at around 30 minutes. EEGs recorded from the brain cortex show flatline activity after 10-15 seconds of cardiac arrest, indicating, according to the psychophysiological consensus, that consciousness is “degenerated,” and that memory and perceptual processes will henceforth cease. Contrastingly, there are studies describing frequently occurring “Near-death Experiences (NDEs)”, and especially of the many cases of “apparent veridical perceptions”. These reports seem to support the alternative view that consciousness is being “disinhibited” and, in some cases, persists in lucid altered states of awareness. The AWARE studies conducted by Parnia and colleagues are at the forefront of this scientific debate. The issue might be, if not resolved, then advanced by recent developments in resuscitation medicine. These advances primarily concern accidental hypothermic conditions, such as snow burial, but also extend to surgical hypothermic circulatory arrest. In cases of accidental hypothermic arrest, many survivors have been successfully resuscitated through gradual rewarming and reoxygenation.

Research Question: Extraordinarily long periods of circulatory arrest have been reported, but are these episodes accompanied by experiential reports?

Methods: An extensive scoping review of the peer-reviewed medical literature was conducted, together with systematic searches of mass-media reports from regions with a high incidence of hypothermic accidents, where prolonged intervals before the return of spontaneous circulation have been documented. A survey of the surgical use of hypothermic circulatory arrest was also included.

Results: No reports of NDEs were found amongst the peer-reviewed or mass-media publications concerning prolonged cases of accidental or induced hypothermic circulatory arrest.

Discussion: The findings are noteworthy for several reasons. It may be that there are neurological constraints on maintaining any conscious activity under these conditions. There may well be reporting and publication biases due to medical staff and patients being reluctant to record and disclose personal experiences. Medication effects may also interfere with the memory processes. Alternatively, it may be the case that, like many aspects of traumatic experiences, these experiences become recorded as state-dependent memories that are difficult to access under normal waking conditions. This latter aspect is compatible with findings indicating that clear features of NDEs are present in 80-90% of those resuscitated from cardiac arrest, although they are frequently not recognised as such. Moreover, there is anecdotal evidence suggesting that detailed memories of NDEs may be recoverable from dissociated states, such as dreams or hypnosis. If this is given credibility, then we need to develop new methodological approaches for investigating experiential data.

Keywords: Near-death experiences, Hypothermic circulatory arrest, Recall of death, Consciousness

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