The effects of Near Death Experiences on dreaming: A pilot study

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Summary. A Near Death Experience (NDE) often has a profound "aftereffect" on the individual, changing his or her worldview – often in a beneficial way. The current pilot study is the first to study the effects of NDEs on subsequent dream contents. Overall, 46 individuals completed an online questionnaire. The findings indicate that NDEs resulted in significantly a) more positive dreams, b) more vivid dreams, c) improved dream recall, d) an increased number of spiritual dreams, e) an increased interest in dreams, and f) an increased interest in the dreams of others; results that are consistent with the continuity hypothesis of dreaming. As the pilot study indicated that NDEs also have profound effects on the dream life of the individual, more in-depth studies are warranted.

Keywords: Near Death Experiences, continuity hypothesis

1. Introduction

Near Death Experiences (NDEs) can occur in individuals who have come close to dying and are often characterized by sense of peace and quiet, pain is no longer felt, out-ofbody experiences, modified time perceptions, meeting with deceased persons, or being immersed in a brilliant light (Van Lommel, 2010). In 95% of the world's cultures references to NDEs have been found (Zingrone, 2009). Nine prospective studies from four different countries report NDE incidences of 17% amongst critically ill patients and 10-20% of those who have come close to death due to accidents or other causes (Greyson, 2014). Up to 10% of the general population have reported to have had a NDE (Kondziella, & Harboe Olsen, 2019). The models and hypotheses of NDE etiology varies from metaphysical, biological, spiritual and transcendental approaches as well as others; for a detailed discussion see: Van Lommel (2010). Research has also indicated that NDEs can have profound so-called "aftereffects", most often beneficial, including a new attitude towards life and death, human relations, and spirituality (Greyson, 1997; Parnia, & Fenwick, 2002).

With respect to dreams and dreaming, in 1989 Sutherland reported on the results of interviews she carried out personally with 40 persons who had had NDEs 2 or more years previously. Of the 37 who were asked about dreams, 43% said that they had been aware of their dreams before their NDE and this figure increased to 73% afterward. In 2004 Britton and Bootzin published the results of an investigation in which they compared the sleep laboratory EEG results from 43 NDErs with those of 20 control persons matched for age and gender. They found that while REM latency (the length of time between sleep onset and the beginning of

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Submitted for publication: April 2021 Accepted for publication: May 2021 DOI: 10.11588/ijodr.2021.2.80839 the first REM phase) increased for NDErs, the percentages of time spent in the REM phases were roughly the same for both groups. Since dream recall is usually easier when awakened from REM sleep (Schredl & Olbrich, 2019) it appears their results do not support the results that Sutherland obtained. Apparently, however, no one as yet has studied the effects of NDEs on dream content.

As an initial step toward addressing this topic, the pilot study investigated whether individuals who experienced a NDE observed aftereffects on their dream life. Based on the continuity hypothesis of dreaming (Schredl, 2003), it was hypothesized that the beneficial effects of NDEs on waking life would be reflected in dreams, i.e., more positive dreams that include spiritual topics more often.

2. Method

2.1. Participants

Overall, 46 participants with NDE experience(s) completed the questionnaire. One participant identifies with both genders, 33 were female, and 12 male. The age groups were as follows: 11 to 20 yrs. (N = 1), 21 to 30 yrs. (N = 3), 31 to 40 yrs. (N = 15), 41 to 50 yrs. (N = 10), 51 to 60 yrs. (N = 10), 61 to 70 yrs. (N = 5), and 71 to 80 yrs. (N = 1) – one value was missing. The answers regarding the question "Speaking very, very broadly, which culture do you identify with?" were: Western world (N = 28), Latino (N = 4), Asian (N = 1), Indigenous (N = 2), others (N = 11).

2.2. Questionnaire

The online survey (available via SurveyMonkey.com) included 7 questions eliciting subjective effects of Near-Death-Experiences (NDE) and 3 demographic variables having to do with gender, age, and culture. The 7 questions were as follows: (1) "Have you noticed a change in the feeling content or themes of your dreams? In general, are they a) A lot more positive, b) Somewhat more positive, c) More or less the same, d) Somewhat more negative, and e) A lot more negative?" (2) "Have you noticed a change in how intense or vivid your dreams are? In general, are they a) A lot more vivid, b) Somewhat more vivid, c) More or less the same,



| Outcome | N = | Percent |
|------------------------|-----|---------|
| A lot more positive | 15 | 32.61% |
| Somewhat more positive | 6 | 13.04% |
| More or less the same | 14 | 30.43% |
| Somewhat more negative | 9 | 19.57% |
| A lot more negative | 2 | 4.35% |

Table 1. Change in feeling content or themes (N = 46)

d) somewhat less vivid, or e) A lot less vivid?" (3) "In general, has your dream recall a) Improved greatly, b) Improved somewhat, c) remained more or less the same, d) is somewhat worse, or e) is a lot worse?" (4) "In general, spiritual themes appear a) A lot more frequently, b) Somewhat more frequently, c) More or less as ever, d) Somewhat less frequently, or e) Much less frequently?" (5) "In general, your interest in dreams has a) Increased greatly, b) Somewhat increased, c) Remained more or less the same, d) Somewhat diminished, e) Diminished notably?" (6) "In general, your interest in the dreams of others has a) Increased greatly, b) Somewhat increased, c) Remained more or less the same, d) Somewhat diminished, or e) Diminished notably?" (7) "Did you learn something about dreams and our dreaming consciousness during your NDE?" There were two possible answers, a) Yes or b) No.

2.3. Procedure

To locate subjects, the study together with a link to a survey was announced on the NDE Facebook group webpage and on the NDERF website. Between November, 2018 and November, 2020, 46 NDErs kindly filled out the questionnaire. Since participation was voluntary and completely anonymous, it was not necessary to obtain consent from those who filled it out. Also, due to the anonymity, there was no way to interview the subjects to ascertain for sure whether they truly had had near death experiences.

Statistical analyses were carried out with SAS 9.4 for Windows (SAS Institute, Cary, North Carolina, USA). The fivepoint items were coded from -2 to +2; we used sign Rank tests to determine whether more participants answered the item in a positive way compared to the number of participants who estimated a negative effect.

3. Results

Regarding the change of dream emotions due to the NDE, about 45% stated that dreams had become more positive whereas about 20% stated negative effects (see Table 1), this difference is significant (S = 144, p = .0037).

| Outcome | N = | Percent |
|-----------------------|-----|---------|
| A lot more vivid | 24 | 52.17% |
| Somewhat more vivid | 9 | 19.57% |
| More or less the same | 8 | 17.39% |
| Somewhat less vivid | 2 | 4.35% |
| A lot less vivid | 3 | 6.52% |

Table 2. Changes in dream intensity (N = 46)

Most participants stated that their dreams were more vivid after the NDE, only about 10% reported less vivid dreams due to the NDE experience (see Table 2). Again, this difference was significant (S = 283.5, p < .0001).

About one half of the participants stated that their dream recall increased after the NDE experience, whereas 18% reported a decrease (see Table 3); the difference is statistically significant (S = 146, p = 0049).

The majority of the participants reported an increase in spiritual dreams, whereas only a small group of less than 5% reported a decrease (see Table 4), a highly significant difference (S = 390, p < .0001).

More than 50% of the participants reported an increased interest in dreams in general and in dreams of others (see Tables 5 and 6), a significant higher percentage compared to the persons who reported a decrease in interest in dreams: S = 307.4, p < .0001 (interest in dreams) and S = 198.5, p < .0001 (interest in the dreams of others).

Of the total group, 22 participants (47.83%) stated that they learned something about dreaming during the NDE.

4. Discussion

The findings of this pilot study indicated that NDEs can have a profound effect on dreaming as participants reported effects like more positive, more vivid, and more spiritual dreams due to their NDEs. In addition, dream recall and the interest in dreams was increased. Lastly, almost 50% reported that the NDE helped them to understand their dreams or dreaming in general better.

The results are in line with the continuity hypothesis of dreaming (Hall & Nordby, 1972; Schredl, 2003) as the spiritual experience of a NDE increases the frequency of spiritual dreams. This study was intended to be a pilot study and exploratory in nature. Future studies should collect more detailed information about the NDE experience, how long ago did it occur, what other areas were affected by this experience and so on. Moreover, it would be interesting to know whether these self-reported effects of NDE experience on dreaming "wear off", that is, longitudinal studies would be interesting. As NDEs are very rare, prospective studies elic-

| Table 3. Changes | in dream recall | (N = 46) |
|------------------|-----------------|----------|
|------------------|-----------------|----------|

Table 4. Changes in frequency of spiritual dreams (N = 46)

| Outcome | N = | Percent | Outcome | N = | Percent |
|-----------------------|-----|---------|------------------------|-----|---------|
| Improved greatly | 16 | 34.78% | A lot more frequent | 21 | 45.65% |
| Somewhat improved | 9 | 19.57% | Somewhat more frequent | 17 | 36.96% |
| More or less the same | 13 | 28.26% | More or less the same | 6 | 13.04% |
| Somewhat worse | 3 | 6.52% | Somewhat less frequent | 2 | 4.35% |
| A lot worse | 5 | 10.87% | Much less frequent | 0 | 0.00% |

Table 5. Changes in interest in dreams (N = 46)

| Outcome | N = | Percent |
|------------------------------|-----|---------|
| Increased greatly | 25 | 59.26% |
| Somewhat increased | 10 | 4.94% |
| Stayed more or less the same | 7 | 27.16% |
| Somewhat diminished | 1 | 4.94% |
| Diminished notably | 3 | 6.17% |

iting dream reports prior and after the NDE are difficult to carry out. Regarding the small sample, it would be interesting to conduct large-scaled surveys in persons who have had near death experiences.

To summarize, the preliminary findings showed that NDEs – typically intense spiritual experiences – can have a major effect on dreaming and, thus, suggest that this is an interesting topic for future research. That is, in the future more in-depth studies are warranted.

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Table 6. Changes in interest in the dreams of others (N = 46)

| Outcome | N = | Percent |
|------------------------------|-----|---------|
| Increased greatly | 14 | 30.43% |
| Somewhat increased | 13 | 28.26% |
| Stayed more or less the same | 14 | 30.43% |
| Somewhat diminished | 3 | 6.52% |
| Diminished notably | 2 | 4.35% |

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