

close human touch with their patients, especially during the initial period after resuscitation.

An obvious limitation to this study was the return of only 11 percent of the questionnaires from those physicians surveyed. This low response rate could have been due to a number of factors, including time limitations placed on physicians by their patient load, relative interest in the subject matter, and length of the questionnaire. This study should be replicated utilizing a larger population of physicians from a wider geographical area.

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Near-Death Experiences and Satisfaction with Life

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ABSTRACT: Near-death experiences (NDEs) are reported to produce positive changes in attitudes, beliefs, and values that might be expected to enhance the experiencers' satisfaction with life. Global satisfaction with life was examined among a sample of self-selected near-death experiencers, individuals who had come close to death without an NDE, and individuals who had never been close to death. NDEers' life satisfaction was not different from that of the two control groups, suggesting that problems readjusting to life after an NDE may offset any enhanced life satisfaction that may result from positive personality transformations.

The near-death experience (NDE) is a profound subjective event with transcendental or mystical elements reported by about one-third of people who come close to death (Greyson, 1994). While there is little consensus among researchers as to the causes and ultimate meaning of the NDE, there is considerable evidence of a consistent pattern of change in beliefs, attitudes, and values following the experience.

Commonly described aftereffects of the NDE include a renewed sense of purpose in life, greater appreciation of life, greater self-confidence and self-esteem, a heightened sense of spirituality and of altruism, shift of emotional investment from material goals and competition to interpersonal relationships and helping others, and, most consistently, decreased fear of death (Bauer, 1985; Flynn, 1982; Greyson, 1983a; Noyes, 1980; Ring, 1984; Sabom, 1982). At least

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some of these aftereffects might be expected to enhance the experiencers' satisfaction with life.

Furthermore, most near-death experiencers interpret their experience as an encounter with the divine (Ring, 1984). Divine interaction is thought to enhance well-being in a variety of ways: it provides a resource for resolving problems, reshapes the experienter's sense of self as empowered by divine support, and expands the experienter's sense of the coherence, comprehensibility, and meaningfulness of life (Pollner, 1989). Melvin Pollner (1989) proposed that divine relations, such as those reported by many NDErs, foster a positive framing of life events in general and an experience of living in the world as essentially good.

On the other hand, there is a sizable literature attesting to significant interpersonal and intrapsychic problems readjusting to life after an NDE (Atwater, 1988; Furn, 1987; Greyson and Harris, 1987; Insinger, 1991). In addition to whatever disability may result from the causes of their encounters with death, experiencers may be left with considerable distress secondary to the NDE itself or to difficulty integrating it into their lives.

Melodie Olson and Peggy Dulaney (1993) studied the relationship between near-death experiences and life satisfaction in the elderly. They solicited volunteers from senior citizens' groups meeting for social reasons; of their 146 volunteers, 46 reported a close brush with death, 15 of those reported some kind of unusual experience during that near-death event, and 12 of those 15 were available to be interviewed. Of those 12 presumptive near-death experiencers, five were judged to have had a near-death experience by virtue of having scored 7 or greater on the NDE Scale (Greyson, 1983b), and four others reported some characteristics of a near-death experience.

As a measure of life satisfaction, Olson and Dulaney used a revised version of the Life Satisfaction Index-A (LSI-A), an 18-item self-report questionnaire with several items focusing specifically on old age (Neugarten, Havighurst, and Tobin, 1961; Adams, 1969) that explores constructs such as congruence between achieved and desired goals, zest for life, and mood. Comparison of LSI-A scores between those who had had NDEs and those who had not showed no significant differences. However, Olson and Dulaney expressed little confidence in those results because of the small number of NDErs in their sample.

The present study was an exploration of satisfaction with life among a larger sample of near-death experiencers of all ages. I con-

trasted scores on a global life satisfaction scale among NDErs to scores among two control groups: a sample of individuals who had come close to death without experiencing an NDE and a sample of individuals who had never been close to death.

Method

Instruments

Subjects were mailed questionnaires, which they completed and returned identified only by anonymous subject number. All subjects completed the Satisfaction With Life Scale (Diener, Emmons, Larsen, and Griffin, 1985), a 5-item Likert-type questionnaire designed to measure global life satisfaction. Subjects rate each item, such as "So far I have gotten the important things I want in life," from 1 (strongly disagree) to 7 (strongly agree). The Satisfaction With Life Scale has internal consistency and temporal reliability, is suitable for all adult age groups, is positively correlated with other measures of subjective well-being, and is free of social desirability response set.

In addition, those subjects who reported having been close to death at some point in their lives completed the NDE Scale (Greyson, 1983b), a 16-item multiple-choice questionnaire designed to measure the occurrence and depth of a near-death experience and its cognitive, affective, paranormal, and transcendental components. The NDE Scale has documented reliability and validity and significantly differentiates NDEs from other close brushes with death (Greyson, 1990). For research purposes, a score of 7 or more points (out of a possible 32) on the NDE Scale is recommended as the criterion for labeling an experience an NDE (Greyson, 1983b). Subscale scores also permit an NDE to be categorized as predominantly cognitive, affective, paranormal, or transcendental (Greyson, 1985, 1990).

Subjects

Subjects were recruited through advertisements in the newsletter of the International Association for Near-Death Studies, an international organization founded to promote research into NDEs. The study sample included 275 subjects: 126 individuals reported having had NDEs and described experiences that scored 7 or greater on the

NDE Scale, 40 individuals reported having had a close brush with death without NDEs and described experiences that scored less than 7 on the NDE Scale, and 109 individuals denied ever having been close to death.

Results

The mean score of all 275 subjects on the Satisfaction With Life Scale was 22.89 (S.D. = 6.88), and the scores ranged from 5 to 35. The mean score for the 121 males in this sample was 22.35 (S.D. = 6.57), and for the 154 females, 22.91 (S.D. = 7.12). This difference between genders was not significant ($df = 1$, $t = 0.70$).

The mean age of this sample was 49.5 years (S.D. = 13.6). For the 166 subjects who had come close to death, the mean age at the time of that brush with death was 31.9 years (S.D. = 15.6), and the mean time elapsed since that brush with death was 19.1 years (S.D. = 15.2). Scores on the Satisfaction With Life Scale were not significantly associated with age at the time of the study ($r = .07$), with age at the time of the close brush with death ($r = -.07$), or with time elapsed since that brush with death ($r = .11$).

The mean score for the 126 subjects who had had NDEs was 23.16 (S.D. = 7.12); for the 40 subjects who had come close to death without NDEs, 23.13 (S.D. = 6.27); and for the 109 subjects who have never come close to death, 22.48 (S.D. = 6.40). Mean scores did not differ significantly among these three groups.

For the 166 subjects who had come close to death, the mean score on the NDE Scale was 13.02 (S.D. = 8.48). Mean scores for this sample on the subscales were 2.93 (S.D. = 2.29) for the cognitive component, 4.39 (S.D. = 2.97) for the affective component, 2.59 (S.D. = 2.14) for the paranormal component, and 3.12 (S.D. = 2.76) for the transcendental component. Scores on the Satisfaction With Life Scale were not significantly associated with scores on the NDE Scale ($r = .09$), nor with scores on any of the component subscales (cognitive, $r = .11$; affective, $r = .16$; paranormal, $r = .02$; and transcendental, $r = .00$).

Among the 123 subjects whose NDEs could be classified according to type, the mean score on the Satisfaction With Life Scale was 23.94 (S.D. = 7.56) for the 49 subjects reporting cognitive NDEs, 21.42 (S.D. = 5.48) for the 38 subjects reporting affective NDEs, 20.25 (S.D. = 10.08) for the four subjects reporting paranormal NDEs, and 22.19

(S.D. = 6.78) for the 32 subjects reporting transcendental NDEs. Mean scores did not differ significantly among these four groups of near-death experiencers ($df = 3$, $F = 1.24$).

Discussion

These data suggest that, despite consistent evidence of positive personal transformation following NDEs and the sense of interaction with the divine, experiencers do not report greater satisfaction with life than do control populations, nor is satisfaction with life associated with depth or type of NDE. Though these results may be counterintuitive, they support and expand the findings of Olson and Dulaney, who found no enhanced life satisfaction among a small sample of elderly NDErs. Previous studies have documented significant problems readjusting to life following an NDE (Atwater, 1988; Furn, 1987; Greyson and Harris, 1987; Insinger, 1991). It may be that for many near-death experiencers, those adjustment problems are sufficient to offset any influence of positive changes in attitudes, beliefs, and values on enhancing global satisfaction with life.

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The Absence of Tunnel Sensations in Near-Death Experiences from India

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ABSTRACT This article questions the recent report by Susan Blackmore (1993) of tunnel sensations in near-death experiences in India, and presents anthropological and methodological reasons for doubting the validity of that finding.

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implication of Luciani's challenge is anti-intellectual. It is the same line of thinking that has led people such as Paul Kurtz, a well-known materialist, to publish in their own vanity presses research supporting their own views. We must reject that comfortable pathway and engage in the intellectual bloodletting necessary for revolutionary scientific thought.

No one has been more critical of Ring than I have. In my own recent review of death-related visions I stated: "His interview format is filled with leading questions . . . heavily weighted toward answers which would please the interviewer by disclosing mystical events and personality transformations. The book is filled with impressive statistics based on a biased subject sample and poor data collection techniques" (Morse, 1994, p. 60). My own mother had to intervene to keep me from writing even more critical comments. Lest anyone think that I spared myself in this review, I pointed out that my own \$100,000 two-year attempt to document the transformations associated with near-death experiences was dismissed by Robert Kastenbaum as "campfire stories" (Kastenbaum, 1993, cited in Morse, 1994, p. 61).

Healthy criticism is the lifeblood of science; refusing to consider studies that conflict with one's world view is not. Of course, researchers want to please the public who buy their books, so Luciani's threat to not read books that he does not agree with is a powerful economic statement. If is for these economic and political reasons that a well-designed study from Australia that found no transformative effects attributable to near-death experiences remains unpublished.

Ring's contributions cannot be measured by how many books he sells. He is one of my personal heroes, a man who has profoundly affected by own research. Every time a grieving parent thanks me for the insights he or she has gained from reading my books, I know that thanks also go to Ring and many others, researchers I often disagree with. I do not feel it is at all controversial to assert boldly that practical advances in fields as diverse as cancer treatment, para-psychology, healthcare reform, psychiatry, consciousness research, computer science, and the treatment of grief will come from understanding near-death experiences. Near-death studies are too important to be stifled by politically correct thought police.

I issue my own challenge to anyone who writes books not accepted by the near-death establishment—the Maurice Rawlingses, the Blackmores, and, yes, sometimes even an establishment figure such as Ring: for every copy of your books that Luciani and those who agree with him don't buy, I will buy ten.

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NDEs and Satisfaction with Life

To the Editor:

I read with great interest Bruce Greyson's paper (1994) on near-death experiences (NDEs) and satisfaction with life, a very needed research area. He wrote that the results—that NDErs were equally as satisfied with life as were nonexperiencers—were counterintuitive. Indeed they were, and I am not sure his explanations clarified all that made them so. I never believed that NDErs were messianic figures who would turn the world on the right track, as they are portrayed by some; but I expected something positive on the whole.

Could a bias in Greyson's sampling have contributed to the negative results? In my review (1994) of Kenneth Ring's book *The Omega Project* (1992), in which he sampled subjects from the membership of the International Association for Near-Death Studies (IANDS), I pointed out how unrepresentative that group is of the American population. Greyson's study also may be slanted by IANDS' unrepresentativeness. Maybe a new sample of unselected subjects, a sample referred to by friendly physicians and nurses, would help clarify this point.

Let me emphasize that Greyson has put his finger on the right spot: we badly need clear insights into this area of research. I am just suggesting a little more.

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Bruce Greyson Responds

To the Editor:

I appreciate Karlis Osis' interest in NDErs' satisfaction with life, and his insights into possible sampling bias in my work. Osis, a pioneer in the research of out-of-body experiences and deathbed visions, questioned whether the similar ratings of my three study groups—NDErs, individuals who had some close to death without NDEs, and individuals who had never come close to death—might have been due to their all having been drawn from the IANDS membership, who may not be representative of other NDErs or the general population. The fact that my findings replicated those of Melodie Olson and Peggy Dulaney's study (1993) of an unselected sample of elderly NDErs and nonNDErs makes it somewhat less plausible that they were due solely to sampling bias. Nevertheless, Osis' point is valid that the IANDS membership may be so homogeneous in certain attitudes as to obscure differences between NDErs and nonNDErs that would be obvious among non-IANDS members.

Another possible explanation for my negative results has recently been brought to my attention. Bill Bingham (personal communication, November 3, 1994), coordinator of the Houston chapter of the Friends of IANDS, suggested that in assessing their satisfaction with life, NDErs and nonNDErs may judge their current situation by very different yardsticks. NonNDErs compare their current existence to an idealized earthly life that may differ from their current life only

in small details. NDErs, on the other hand, compare their current existence to the transcendent realm of the NDE; by that criterion, Bingham suggested, few NDErs would say they were "satisfied" with life. While the wording of the Satisfaction With Life Scale implied a comparison with "what might have been" in this earthly realm, the contrast to the unearthly dimension could certainly have influenced NDErs' ratings. In the interest of using a scale that had documented reliability and validity, I may have selected one that might be insensitive to NDErs' particular viewpoint, and that may well have contributed to my failure to find a difference between groups.

Osis' and Bingham's comments, taken together, point out the need for a more definitive study of randomly selected NDErs and control groups in which criteria for judging life satisfaction are spelled out more clearly.

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