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Near-Death Experiences and Psychological Wellbeing: A Quantitative Analysis

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Abstract: This article presents the methods and quantitative analysis of a survey study (*n* = 51) which explored the extent to which a near-death experience (NDE) as a whole, as well as the individual items of the NDE Scale, are associated with particular psychological wellbeing (PWB) outcomes. These PWB outcomes include long-term changes in 1) happiness/life satisfaction; 2) perception of life's purpose; 3) social relationships; and 4) mood. Per Pearson's correlation coefficient, the depth (i.e., score) of the NDE had no correlation to after-effects except for that of believing the NDE has led to positive long-term and ongoing changes in one's mood. Mood was impacted by the transcendental component of the NDE (*r* = .423; *p* = .006). Several NDE Scale items related to specific PWB outcomes. Although the depth of the NDE did not correlate with life satisfaction, there were relationships between life satisfaction and the other PWB outcomes, most notably with changes in one's perception of life's purpose (*r* = .741; *p* < .001). Furthermore, a Mann-Whitney u-test revealed that Near-Death Experiencers (NDErs) younger than 20 at the time of their NDE (*n* =14) demonstrated significantly lower scores on social wellbeing (*U* = 99.5, *p* = .007).

Keywords: Near-death experience, exceptional experience, NDE Scale, psychological wellbeing, parapsychology

The near-death experience (NDE) is "a profound psychological event that may occur to a person close to death or who is not near death but in a situation of physical or emotional crisis. Being in a life-threatening situation does not, by itself, constitute a near-death experience... At its broadest, the experiences involve perceptions of movement through space, of light and darkness, a landscape, presences, intense emotion, and a conviction of having a new understanding of the nature of the universe" (IANDS, 2015). In more simple terms, an NDE "encompasses the psychological experience of an alternate reality actually reported by only a minority of people who survive near-death episodes," (the profound physical circumstance which precipitates a near-death experience)" (Holden, Greyson, & James, 2009, p. x).

NDEs are spontaneous, subjectively anomalous (otherwise known as "exceptional") experiences. An NDE is something that happens to real people during their otherwise ordinary lives. It is something

most people have not even heard of and it happens unexpectedly. Sometimes they occur during rather mundane situations that seemingly involve little danger, but often occur during medical procedures and of course, physically traumatic accidents. The definitions of an NDE provided here frame the fact that an NDE is a profound, exceptional psychological experience during a perceived life-threatening, physical circumstance (near-death episode). These two aspects combined often impact a person's psychological wellbeing (PWB) greatly and in different ways. Impacts also vary from person to person and can be looked at clinically when regarding how one's PWB is being impacted either in a healthy manner versus a not-so-healthy manner, although the research on this is limited.

The goal of this study was to explore the extent to which the depth of an NDE as a whole, but also the individual dimensions of the NDE, are associated with particular impact/psychological well-being outcomes. Per the NDE Scale (Greyson, 1983), the NDE has significant aspects that make up an NDE, which is reflected in the individual items on the scale, and how they are grouped; not every NDE is the same, however, and people may have less or more of these aspects than others (Greyson, 1983). Thus, the study hypothesizes that not only the overall depth of an NDE may impact certain wellbeing outcomes, but the type of NDE or even individual parts of it may impact wellbeing. The questionnaire can be considered mainly exploratory and inductive to establish preliminary data on how integration of NDEs is expressed and to investigate what factors may correlate with reported after-effects.

Researchers are in agreement that near-death experiencers' attitudes, beliefs, and values can change radically and permanently following an NDE (Greyson, 1991, 1998, 2000; Noyes et al., 2009), with two-thirds of those who have had NDEs reporting changes (Fenwick & Fenwick, 2011; Noyes, 1980). NDEs are typically initially very confusing to the experiencer, even if the NDE was pleasant (Ring, 1984), due to their being anomalous but also because of the context in which it arises (having almost died). Thus, an NDEr not only has to process their NDE but also, their near-death episode, and potentially, their physical recovery following the episode.

Personality changes from the NDE typically take several years to fully reveal themselves (Atwater, 2006; van Lommel, van Wees, Meyers, & Elfferich, 2001) and can take many more to integrate into the experiencer's life. An NDE can impact a person in drastic and lasting ways, but how a person makes sense of their NDE and what after-effects they experience varies and depends on a multitude of factors. Some people may find their NDE to simply be interesting and unexplainable and brush it off, while others may be on the other side of the spectrum and find their views on life and its meaning completely changed, which initiates them to drastically change aspects of their life, such as their career or relationships.

The factors which play a part in what after-effects may be experienced are not well understood, but common positive changes have been noted. Some of these include changes in the perception of self, relationship to others, and attitude toward life:

Table 1
Noyes' NDE Aftereffects (1980)

Perception of Self	Relationship to Others	Attitude toward Life
Loss of fear of death	Increased compassion and love for others	Greater appreciation of and zest for life
Strengthened belief in life after death	Lessened concern for material gain, recognition, or status	Increased focus on the present
Feeling specially favored by God	Greater desire to serve others	Deeper religious faith or heightened spirituality
New sense of purpose or mission	Increased ability to express feelings	Search for knowledge
Heightened self esteem		Greater appreciation for nature

By and large, the focus of research into NDEs has been on positive effects regarding the above listed changes (e.g., French, 2005; Greyson, 2001; Groth-Marnat & Summers, 1998; Khanna & Greyson, 2015; Parnia, 2014). There is very limited research into the reported lived experiences with after-effects that demonstrate people can have difficulty in not only coming to terms with their NDE but with the changes that accompany it. Atwater (1994) describes some of these difficulties:

1. An inability to personalize emotions or feelings, especially those of love.
2. The inability to recognize and comprehend boundaries, rules, limits.
3. Difficulty understanding time sense/having a sense of timelessness.
4. Expanded/enhanced sensitivities, such as becoming more intuitive.
5. Becoming more detached, objective, with noticeable reduction of fears and worries.
6. A different feeling of physical self, a certain detachment from the body, believing that we live in and "wear" our bodies.
7. Difficulty with communication and relationships, finding it hard to say what is meant or to understand language phrasing used by others.

Stout et al. (2006) found that NDErs reported the following major challenging aftereffects:

1. Processing a Radical Shift in Reality
2. Accepting the Return
3. Sharing the Experience
4. Integrating New Spiritual Values with Earthly Expectations
5. Adjusting to Heightened Sensitivities and Supernatural Gifts
6. Finding and Living One's Purpose

Stout et al.'s (2006) findings overlap Atwater's (1994), which are compared in Table 2:

Table 2
Atwater and Stout et al.'s Challenging Aftereffects

Atwater (1994)	**Stout et al.** (2006)
An inability to personalize emotions or feelings, especially those of love.	Integrating New Spiritual Values with Earthly Expectations
The inability to recognize and comprehend boundaries, rules, limits.	Accepting the Return
Difficulty with communication and relationships, finding it hard to say what it is meant or to understand language phrasing used by others.	Sharing the Experience
Expanded/enhanced sensitivities, such as becoming more intuitive.	Adjusting to Heightened Sensitivities and Supernatural Gifts
Becoming more detached, objective, with noticeable reduction of fears and worries.	Finding and Living One's Purpose
A different feeling of physical self, a certain detachment from the body, believing that we live in and "wear" our bodies.	Processing a Radical Shift in Reality
Difficulty understanding time sense/having a sense of timelessness.	

These specific after-effects might be expected to have a relationship with particular spheres of psychological wellbeing:

- Long-term changes in happiness and life satisfaction
- Long-term changes in perception of life's purpose
- Long-term social challenges of after-effects
- Long-term changes in mood

NDE PWB outcomes have been minimally investigated. Life satisfaction has been the primary PWB outcome on which researchers have focused (Greyson, 1994; Olson & Dulaney, 1993; Royse & Badger, 2017); consistently, research has found that those who have had NDEs do not differ in life satisfaction when compared to those who have not had NDEs. Furthermore, depth and type (i.e., paranormal, cognitive, affective, transcendental, and unclassifiable) of NDE (per the NDE Scale) have no bearing on life satisfaction scores. This suggests that although there is evidence of positive personality changes following an NDE, NDErs do not report greater life satisfaction than people who have not had a near-death experience.

This is a valuable finding since much of the NDE literature focuses on the positive after-effects of

NDEs which perpetuates the idea that NDErs do not struggle to live with those after-effects in any sort of significant way. However, if NDEs induce such positive and lasting changes, why is life satisfaction not higher amongst NDErs? Greyson postulated that integration problems may be sufficient to offset any influence of positive changes in life satisfaction (1994, p. 107). *Integration* can be operationally defined as organizing and accepting an experience into one's life so that they can maintain health and wellbe-ing. It is both a state and a process; the process involved is a constant development and organization of the respective experience into the person's sense of self and life. The result of this process is the state where the person has integrated the experience and has reached a sort of equilibrium with how they view it within themselves and within their life. This thought is a hypothesis, however, and quite general. "Integration problems" can happen psychologically, emotionally, socially, physically, and spiritually. Thus, there are specific areas of psychological wellbeing that may be studied to identify key problem areas regarding integration of NDEs.

Method

Design

The survey consisted of an online questionnaire-- a mixed method approach of 71 free response and multiple-choice questions-- was used in the design of the questionnaire. Although the quantitative analysis will be presented here, Study I also included a thematic content analysis which primarily focused on analyzing the free responses (these findings will be presented in a separate article.) In order to investigate how NDEs, as a whole and aspects thereof, may impact people and their lives long-term and to establish what qualified as an NDE, the NDE Scale was used in the survey. The NDE Scale consists of 16 items typical of NDEs and is a reliable way to identify NDEs from NDE-like experiences, using a criterion score of 7 or higher. In line with the literature, participants in this study who scored 7 or higher were classified as near-death experiencers (NDErs).

The design of this study was correlational; the researcher looked at associations between NDE Scale score, NDE components (of which there are four: cognitive, affective, paranormal, and transcendental) and individual scale items against the following aforementioned PWB outcomes:

- Long-term changes in happiness and life satisfaction
- Long-term changes in perception of life's purpose
- Long-term social challenges of after-effects
- Long-term changes in mood

The researcher also investigated the PWB outcomes against themselves to investigate their relationships amongst one another.

Process to Survey People

The questionnaire was available online via Qualtrics. The primary method of obtaining participants was through online special interest groups and websites for special interest associations, such as the International Association for Near-Death Studies (IANDS)-- a primary source of NDE participants in many studies. Thus, purposive sampling was the method of acquiring participants. IANDS and other NDE interest groups were contacted directly, and these groups published advertisements for participants on their respective community pages or publications, such as newsletters. Algorithmic advertisements on social media, such as on Facebook, were also usedas a way for the study to be shown to people who followed pages or were members of groups interested in near-death experiences. The advertisements were focused on said people from all across the world, who were at least aged 18.

Materials included the information cover letter, consent form, debrief, a review of their answers with an option to download them in a PDF file, and an option to provide email address to be potentially contacted for Study II (an interview). The cover letter provides an introduction to the questionnaire, its researchers and how to contact them, funding, and vital ethical concerns such as anonymity, data protection, consent, and withdrawal from the study.

Fifty-one completed questionnaires were acquired. The study was advertised and available online for a month and a half. The survey garnered the most participants within the first few weeks and attention trailed off thereafter, eventually getting to a period where no new participants were completing the questionnaire. This indicated that a saturation point had been reached regarding the sampling resources at hand and used. Furthermore, per similar previous research (Hoffman, 1995 and Holden et al., 2014) we see that mixed-method designs have used sample sizes of between 50 to mid-80s. Due to these considerations, 51 completed questionnaires were deemed acceptable for a workable sample size.

The questionnaire begins by asking several basic questions about the respondent's NDE, such as the year it occurred, the event that led up to the NDE, and to explain what was experienced during the NDE. After these first questions, the respondent is then asked the questions from the NDE Scale**.** The Scale is slightly modified by allowing a person to add a short-written response next to selected answers should they wish to further clarify. Furthermore, with the question of "Were your thoughts speeded up?", the answer of "Slower than usual," has been added as an option so that, "No," "Faster than usual," and, "Incredibly fast," were not the only options, as these options were found to be limiting in the pilot study. Greyson's NDE Scale was incorporated to measure the depth of each participant's near-death experience, what NDE components were present for each NDE, and to demarcate a minimum qualification of what is an NDE.

Procedure

Those interested in taking part in the study would click the link for the information sheet/cover letter of the questionnaire, which detailed what the questionnaire was about, who the researchers were, how to contact them, participation criteria, reminder for self-care, and the participants' rights. Participants were informed that the questionnaire could take as short or as long as they needed. They were

also informed that they did not have to do it all in one session and that they could return to it at any time.

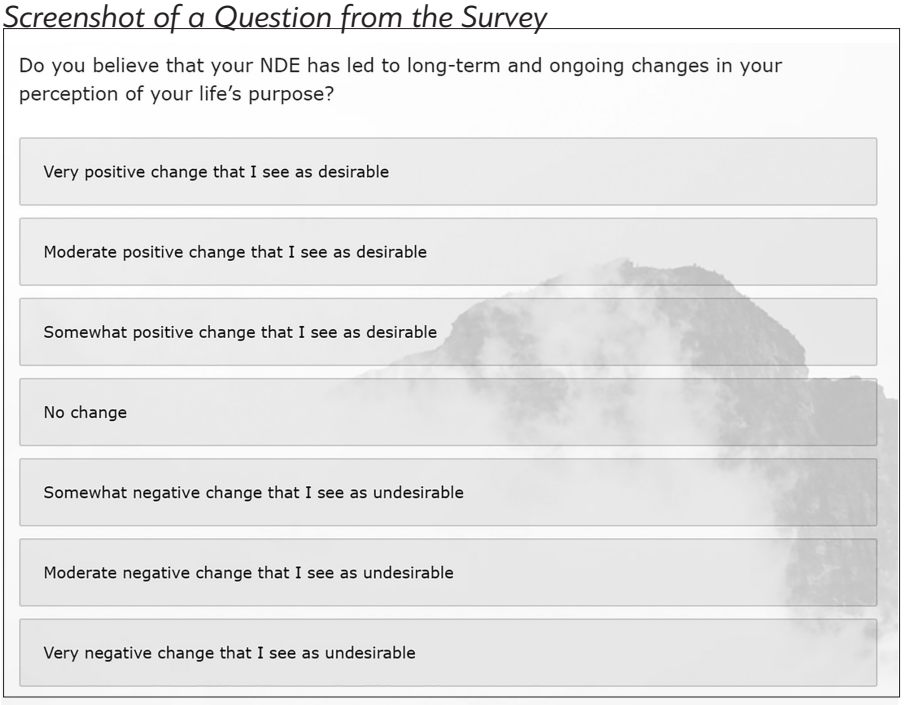
Potential participants had to consent to,

1. Being at least 18 years of age
2. Being able to write and read English fluently
3. Understanding that all information they give is anonymous
4. Understanding that questions may be asked that cause discomfort to them and that they are free to decline to answer such questions or quit the questionnaire without explanation and penalty
5. Understanding that they have seven days following the completion of the questionnaire to withdraw their consent to participate, without explanation or penalty, by quoting their unique participation number
6. Having read and understood the information in the cover letter
7. Checking "yes," confirming that they agree to participate in this study and that they meet all of the requirements stated above to participate

The first set of questions after the consent form pertained to when their NDE occurred, describing the event that led up to the NDE, and a description of the NDE itself. The next 16 questions are from the NDE Scale. After the Scale, the participant is asked to describe any significant long-term changes regarding the psychological wellbeing outcomes. (Figure 1 shows a sample question from the survey). The participant is then asked if any of these changes were difficult to accommodate ("yes" or "no"); if they said "yes," they would be shown several questions pertaining to this difficulty, including freely describing which changes were difficult to accommodate and why, how they have managed to accommodate these difficult changes (if they have), and what post-NDE changes they are still struggling with, if there are any.

Figure 1

Screenshot of a Question from the Survey



Following completion of the questionnaire, all participants were asked if they would like, potentially, to take part in Study II (an interview to be analyzed via interpretative phenomenological analysis) and if so, to provide an email address; all were debriefed, presented with a review of their answers with an option to download them, and received a unique participant code. The questionnaire was automatically stored on the Qualtrics server. The participants were also again presented with the researcher's name and contact information should they have any questions or comments, or if they wished to retract their participation within the seven-day grace period, which no participant did.

Ethical Considerations

As the NDEs and subsequent after-effects can still be a source of stress or difficult to share, espe-cially as NDErs are sensitive to ridicule or accusations of pathology, it was important that the participants were made to feel as comfortable and protected as possible while answering the questionnaire (Roxburgh & Evenden, 2016a; 2016b). This was ensured in a few ways:

Following the British Psychological Society ethics section IV, subsection 1.2, Standard of Privacy and Confidentiality, anonymity was guaranteed for all participants and the information they provided was available to only the researcher and her supervisors, thereby guaranteeing that their contributions would not be traceable back to them and so, they will not be potentially subjected to accusations mentioned above. However, participants were able to provide an email address by which to be contacted if they were interested in a follow-up interview for Study II. Furthermore, all respondents were given an alphanumerical code which was employed solely for the identification of each questionnaire in the analysis and for the intention of withdrawing data, which respondents were informed they could do up to seven days after submission and without penalty. All information received has been stored securely following the provisions of the Data Protection Act. Maintaining the standards The Data Protection Act (2018), all acquired data has been kept by me, the primary researcher, and stored away in a secure server where no one else can gain access. This data has only been shared with my supervisors.

Per subsection 1.3, Informed Consent, consent was received, and respondents were also debriefed on the overall nature of the study, assuring them of the intent of the questionnaire and data collection. All participants were given contact details of the primary researcher in order to ask any questions, give any comments or concerns they may have, or to withdraw. Standards of debriefing (BPS Ethical Guidelines, Section 3, sub-section 4) were followed when working with participants directly and indirectly. The information that preceded the survey supplied all the relevant information on the study, including information on their anonymity, storage of data, use of verbatim quotes, and access to the findings. No potential participants emailed the researcher with any questions nor concerns, and no participants contacted the researcher post-study to withdraw their consent.

Due to the sensitive nature of discussing a close brush with death, an anomalous and potentially spiritually meaningful experience, and personal struggles and transformations, ethical considerations were of utmost importance (Cooper, Roe, & Mitchell, 2015; Roxburgh & Evenden, 2016a, 2016b; Steffen, Wilde, & Cooper, 2018). The codes of ethics for the British Psychological Society (BPS, 2009) and the University of Northampton were used as guidelines when developing the questionnaire, in its execution,

and in its analysis. Furthermore, a health and risk assessment were carried out and approved by the supervisory board on October 11, 2017.

The researcher always followed the BPS code of ethics (section 3 Ethical Principles: Responsibility). As some questions may invoke memories that involve stress or discomfort, and participants were encouraged to take as many breaks as needed and to remember that self-care is important. The questionnaire could be taken at one's leisure and it did not have to be completed in one sitting. Participants were informed that participating in this survey was through their own free will and at any point during the questionnaire should they like to quit, they were free to do so, and without penalty. Furthermore, they were also informed that if they exited the questionnaire without completing it, the data would not be saved nor used and that if they felt uncomfortable answering any question during the survey, they could skip the question. Previous research into asking people to participate in research related to anomalous experiences has shown that it is unlikely participants will have a negative reaction (Krippner, 2006), but for due diligence, further care was taken in this study. In case of an unlikely adverse reaction to recalling unpleasant memories, and per BPS Ethical Guidelines, section 3, sub-section 2 (iv), which states that 'psychologists should refer clients to alternative sources of assistance as appropriate, facilitating the transfer and continuity of care through reasonable collaboration with other professionals', participants were also recommended to reach out to their mental health professionals (e.g., counselor) if needed. All participants were reminded at the end of the questionnaire that the lead researcher was available to discuss any questions, comments, or concerns they may have had, and my email contact information was presented again.

Results

Demographics

The 51 participants came from 11 different countries, with the majority of participants coming from the USA (n = 32), followed by the UK (*n* = 8), as shown in Table 3.

Table 3
In What Country Do You Reside?

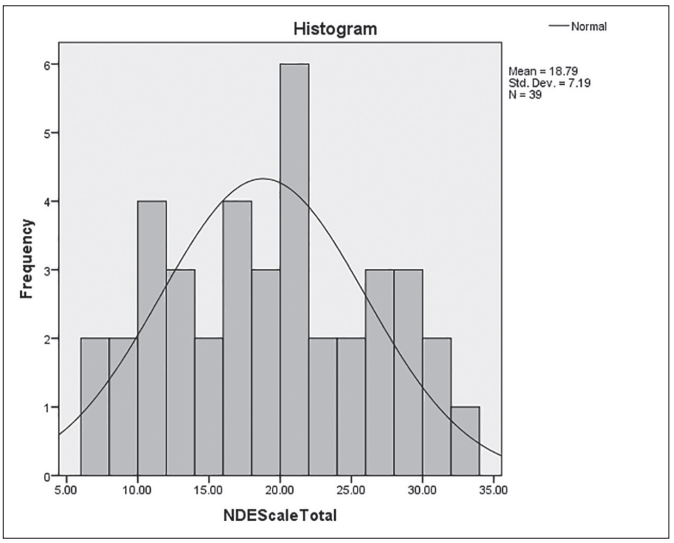
Country	Frequency	Percent
USA	32	62.7%
UK	8	15.7%
Australia	2	3.9%
Canada	1	2.0%
Israel	1	2.0%
Kuwait	1	2.0%
Netherlands	1	2.0%
Panama	1	2.0%
Philippines	1	2.0%
Puerto Rico	1	2.0%
Russia	1	2.0%

Thirty participants identified as female, 20 identified as male, and one identified as androgynous. Thirty-seven participants (72.5%) identified as white, three (5.9%) as Hispanic, three as mixed race/ethnicity, two (3.9%) as black, two as Native American, one (2.0%) as Asian, and one as Jewish/Sephardic. The ages of participants ranged between 19 and 77. Out of the 43 participants who answered the question, "How old were you when you had your first NDE?', the most common responses were "24," (7.8%) and "6," (7.8%).

Outcomes

The first non-demographic related responses that were analyzed were the NDE Scale answers. See Figure 2.

Figure 2
Histogram of NDE Scale Scores



The mean was 18.79 ± 7.19 [range = 6 to 34], a little higher than Greyson's findings for the NDE Scale which were 15.01 ± 7.84 [range = 2 to 31] (1983) but in the range of other studies (Khanna & Grey-son, 2015; Holden et al., 2014; Hoffman, 1995; Greyson, 1994). A Shapiro-Wilk test of normality verified the data for the NDE Scale were normally distributed ($W(51) = .97$, $p = .15$, 95% CI [15.9, 20.3]). This test was selected over Kolmogorov-Smirnov as it is more appropriate for the small sample size (Ghasemi & Zahediasl, 2012). The non-significant outcome indicates that the sample does not differ significantly from what would be expected from a normal distribution.

Seven questionnaires scored below seven on the Scale and were thus not included in the analyses beyond the demographic findings. This left 44 useable questionnaires. I combined the totals of the PWB outcomes to form an overall PWB scale, with the lowest possible score being -12 and the highest being

12. The mean was 7.57 ± 4.71 [range -5 to 12]. The wellbeing outcomes total was found to have acceptable reliability (5 items; 0 = .69) (Griethuijsen et al., 2014; Taber, 2018). A Shapiro-Wilk test displayed that the data were not normally distributed, $W(42) = .86$, $p < .001$, CI 95% [6.10, 9.04].

The data for this (and the individual scale items [each psychological wellbeing outcome question]) was anticipated to be skewed due to the method and sample size ($n = 44$); However, because the sample size was over 30, central limit theorem was applied to the data. This theorem states that the sampling distribution of the mean approaches a normal distribution, as the sample size increases. This fact holds especially true for sample sizes over 30 (McKean, 2014; Pearson, 1931). A further argument to use parametric testing for the correlations when most of the questions are Likert-scales, which skew the distributions, is that the Pearson correlation, like all parametric tests, is extremely robust with respect to violations of assumptions (Norman, 2010). Pearson (1931, 1932a, b), Dunlap (1931). Havlicek and Peterson (1976) have all proven, using theoretical distributions, that the Pearson correlation is robust in regard to skewness and non-normality.

The NDE Scale has been proven to be adequately suited for parametric tests. A Rasch rating-scale analysis established that the NDE Scale yields a unidimensional measure, invariant across gender, age, intensity of experience, or time elapsed since the experience (Lange et al., 2004). Although the NDE Scale was developed as an ordinal scale without quantified anchor points, the fact that it satisfactorily fits the Rasch model suggests that for all practical purposes, there do appear to be equal distances between the points of measurement that give the scale interval-level measurement properties (Wright & Masters, 1982)

Other studies have used parametric testing when looking at relationships between a certain variable (such as satisfaction with life) and NDE Scale score, components, and items. For instance, Royse and Badger (2017) examined the relationships between NDEs, post-traumatic growth, and life satisfaction amongst burn survivors, 47 of whom were NDErs and 45 who were not. They employed the NDE Scale, Satisfaction with Life Scale, which is comprised of five items utilizing a scale of 1 to 7, and the Posttraumatic Growth Inventory-Short Form (PTGI-SF), a measure of 10 Likert-scale items that are on a 6-point scale. Royse and Badger treated the overall scale scores and the individual Likert-scale items as continuous and employed one-way analysis of variance and independent samples t-tests.

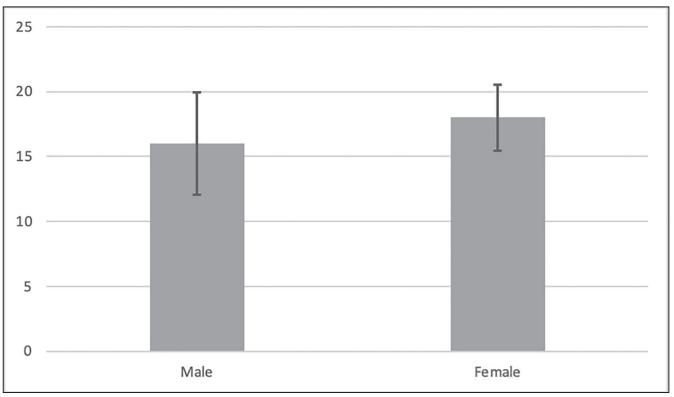
In their study, Khanna and Greyson (2013) also employed parametric tests when examining spiritual PWB amongst 224 NDErs, using the Spiritual Wellbeing Scale (SWBS) and the NDE Scale. A t-test was employed to examine the relationship of SWBS scores with having or not having an NDE during a near-death episode; a Pearson's coefficient was carried out to examine the relationship with the NDE Scale score. Other researchers have asserted that Likert, or ordinal variables with five or more categories can often be used as continuous without any harm to the analysis (Johnson & Creech, 1983; Norman, 2010; Sullivan & Artino, 2013; Zumbo & Zimmerman, 1993). In such situations, researchers usually refer to the variable as an "ordinal approximation of a continuous variable," and cite the five or more categories rule as mentioned. All of the Likert-scales which measured respective PWB outcomes were five to seven points.

Per independent samples t-tests, there were no differences in the scores regarding age and gender

for the NDE Scale. I measured the internal reliability of both the NDE Scale and the PWB outcomes total via Cronbach's alpha. The PWB outcomes total was found to have acceptable validity (5 items; 0 = .69) (Griethuijsen et al., 2014; Taber, 2018). The NDE Scale had strong validity (16 items; 0 = .84). The scores for the four components were found to be reliable, though on average, slightly lower than Greyson's: Cognitive component (0 = .67), as compared to Greyson's (0 = .75); affective component (0 = .81), as compared to Greyson's (0 = .86); paranormal component (0 = .64, as compared to Greyson's (0 = .66); and the transcendental component (0 = .60), which was considerably lower than Greyson's (0 = .76). Differences in scores may be due to the Greyson's study having been done around forty years ago (1983), through the mail, whereas my study was executed online, and had a larger sample size of NDEs (*n* = 73).

An independent t-test to investigate differences between men (*n* = 17, M = 17.6, *SD* = 8.3) and women (*n* = 26, *M* = 18.6, *SD* = 6.6) on the *NDE Scale totals*; there were none, *t*(42) = -.41, *p* = .66, CI 95% [-5.5, 3.7]. Thus, that there are no differences amongst genders regarding the depths of the NDE in the NDE population can be presumed. A visual representation of this can be seen in Figure 3. All violations for parametric assumptions were checked for; there were none.

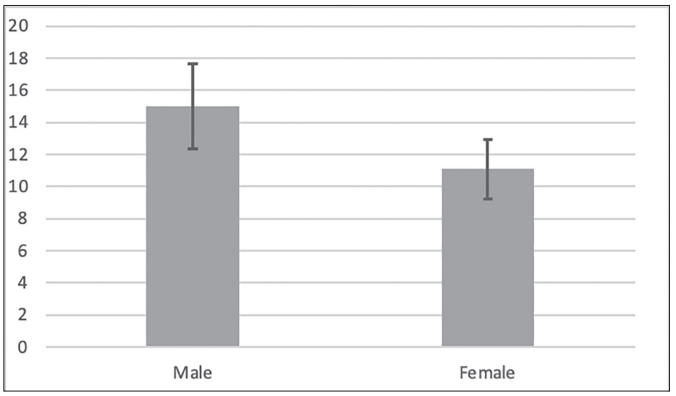
Figure 3
Genders Compared to NDE Scale Scores with 95% Confidence Intervals



An independent t-test was employed to see if there were any significant differences between men (*n* = 17, *M* = 8.3, *SD* = 5.2) and women (*n* = 26, *M* = 11.1, *SD* = 4.9) for the total of the *wellbeing scale scores*; there were none, *t*(42) = -1.7, *p* = .096, CI 95% [-5.9, 5.1]. Thus, that there are no differences amongst genders regarding wellbeing outcomes in the NDE population can be presumed. A visual representation of this can be seen in Figure 4. All violations for parametric assumptions were checked for; there were none.

Figure 4

Genders Compared to Wellbeing Scale Scores with 95% Confidence Intervals



A Pearson's coefficient was carried out to see if there was a relationship between wellbeing scale totals and depth of NDE; a small positive correlation was found but this was not significant (r = .272; p = .081). A Pearson's coefficient was also carried out to see if there was a relationship between wellbeing score totals and age at the time of the NDE; a small positive correlation was found but this was not significant (r = .130; p = .413). Another Pearson's coefficient was also carried out to see if there was a relationship between the four components of the NDE Scale and the wellbeing scale totals; there were none.

Whether or not the NDE Scale scores had a relationship with any of the PWB outcomes was then analyzed (See Table 4).

Table 4

NDE Scale Total Compared to Aftereffects via Pearson's Correlation Coefficient

Wellbeing Outcomes	Correlation Coefficient
A1. Do you believe that your NDE has led to long-term and continuing changes in your current sense of happiness and life satisfaction?	.012 p = .939
A2. Do you believe that your NDE has led to long-term and ongoing changes in your perception of your life's purpose?	.248 p = .104
A3. Do you believe that your NDE has led to long-term and ongoing changes in your social relationships in general (e.g., relationships with family, friends, co-workers, etc.)?	.237 p = .130
A4. Do you believe that your NDE has led to long-term and ongoing changes in your mood?	**.312*** p = .044

*. Correlation is significant at the 0.05 level (2-tailed).

Per Pearson's correlation coefficient, the depth (i.e., score) of the NDE had no correlation to after-effects except for that of believing the NDE has led to long-term and ongoing changes in one's mood. The deeper the NDE (i.e., the higher the NDE Scale score), the more one reports positive long-term and ongoing changes in one's mood long-term, perhaps only moderately. This corroborates with the literature and confirms that life satisfaction is not related to the depth of an NDE.

A simple linear regression was calculated to predict mood based on the depth of the NDE. A small significant regression equation was found ($F(1, 43) = 4.3$, $p = .04$); 9.7% of the variation in mood can be explained by the depth of the NDE. The regression coefficient ($B = .065$, 95% CI [.002, .128]) indicated that an increase in one point on the NDE Scale corresponded, on average, in an increase in mood score by .065 points. This analysis led to the next, which was to investigate what about the depth of the NDE could be playing a part in how mood is affected long-term.

The NDE Scale Components Compared to Aftereffects

The NDE Scale classifies components of NDEs into four categories: cognitive, affective, paranormal, and transcendental. Given that the depth of an NDE and long-term changes in mood have a relationship, looking into if any of the components may be a part of that relationship was a natural next step.

Table 5

NDE Scale Components Compared to Aftereffects via Pearson's Correlation Coefficient

Wellbeing Outcomes NDE Scale Items	**Cognitive** Items 1-4	**Affective** Items 5-8	**Paranormal** Items 9-12	**Transcendental** Items 13-16
A1. Do you believe that your NDE has led to long-term and continuing changes in your current sense of happiness and life satisfaction?	-.046 $p = .781$	.027 $p = .859$	.002 $p = .990$	.034 $p = .827$
A2. Do you believe that your NDE has led to long-term and ongoing changes in your perception of your life's purpose?	.231 $p = .162$	.177 $p = .249$	.243 $p = .112$	.111 $p = .479$
A3. Do you believe that your NDE has led to long-term and ongoing changes in your social relationships in general (e.g., relationships with family, friends, co-workers, etc.)?	.235 $p = .156$	.213 $p = .176$	.088 $p = .581$	.197 $p = .217$
A4. Do you believe that your NDE has led to long-term and ongoing changes in your mood?	.231 $p = .162$	.133 $p = .399$	.256 $p = .102$	**.423**** $p = .006$

**. Correlation is significant at the 0.01 level (2-tailed).

Per Pearson's correlation coefficient, only the transcendental component of the NDE contributed to a PWB outcome, that of (A4) Long-term and ongoing changes in mood (r = .423; p = .006). A simple linear regression was calculated to predict "changes in mood" based on the score of the transcendental component. A significant regression equation was found ($F(1, 43) = 8.5$, p = .006); 17.9% of the variation in mood can be explained by the transcendental component. The regression coefficient (B = .271, 95% CI [.083, .459]) indicated that an increase in one point on the transcendental component corresponded, on average, in an increase in mood score by .271 points.

The Psychological Wellbeing Outcomes Compared to the NDE Scale Items

The four PWB outcomes were analyzed against the individual questions of the NDE Scale using two-tailed Pearson's correlation coefficient to see if any particular aspect of the NDE related to the after-effects. As each component is comprised of several scale questions, this helped to see if anything in particular about the NDE Scale component had a relationship with the PWB aftereffects:

Table 6

Psychological Wellbeing Outcomes Compared to NDE Scale Items via Pearson's Correlation Coefficient

NDE Scale Items	A1. Do you believe that your NDE has led to long-term and continuing changes in your current sense of happiness and life satisfaction?	A2. Do you believe that your NDE has led to long-term and ongoing changes in your perception of your life's purpose?	A3. Do you believe that your NDE has led to long-term and ongoing changes in your social relationships in general (e.g., relationships with family, friends, co-workers, etc.)?	A4. Do you believe that your NDE has led to long-term and ongoing changes in your mood?
1	.000	.146	**.372***	.290
2	-.013	.144	.133	.126
3	-.248	.015	-.089	-.062
4	.152	**.311***	.235	.236
5	.031	.179	.062	.052
6	.033	.237	.267	.038
7	.211	.200	.189	.287
8	-.170	-.032	.145	.043
9	-.054	.119	.185	.149
10	.134	.224	.078	**.378***
11	-.068	.173	.038	.094
12	-.037	.148	-.074	.036
13	-.040	.064	.198	.104
14	.287	.182	.029	**.555****
15	-.071	.075	.191	.142
16	-.133	-.083	.027	.247

Three of the four after-effects had significant correlations with at least one NDE Scale Item.

- (A2) Changes in life's purpose correlated with Scale Item (4) "Did you suddenly seem to understand everything?" ($r = .311$; $p = .045$).
- (A3) Changes in social relationships had a positive correlation with Scale Item (1) "Did time seem to speed up or slow down?" ($r = .372$; $p = .018$).
- (A4) Changes in mood had a positive correlation with Scale Item (10) "Did you seem to be aware of things going on elsewhere, as if by extrasensory perception (ESP)?" ($r = .378$; $p = .014$) and with Scale Item (14) "Did you seem to encounter a mystical being or presence, or hear an unidentifiable voice?" ($r = .555$; $p < .001$).

There were no significant correlations between the NDE Scale items and (A1) changes in current sense of happiness and life satisfaction.

The more someone reports Scale Item (11) scenes from the future, the more they report (A2) positive changes in their sense of life's purpose. The more someone reports Scale Item (1) time having changed during their NDE, the more positive (A3) social changes they report. The more someone reports a) Scale Item (10) having awareness of things going on elsewhere as if by ESP or b) Scale Item (14) seeming to encounter a mystical being or hearing an unidentifiable voice, the more they report having (A4) positive changes with mood.

Simple linear regressions were employed to investigate these findings further.

- Reporting Scale Item (4) "Suddenly seeming to understand everything" in the NDE was found to be statistically significant on (A2) life's purpose ($F(1, 43) = 4.3$, $p = .045$); 9.7% of the variation in life purpose can be explained by understanding everything in the NDE and it was a significant predictor ($B = .438$, 95% CI [.010, .866]).
- Reporting Scale Item (1) "Time speeding up or slowing down" was found to be statistically significant on (A3) social changes ($F(1, 43) = 6.1$, $p = .018$); 13.9% of the variation in social changes can be explained by time changing speed during the NDE and it was a significant predictor ($B = .895$, 95% CI [.162, 1.627]).
- Reporting Scale Item (10) "ESP" was found to be statistically significant on (A4) mood ($F(1, 43) = 6.7$, $p = .014$); 14.3% of the variation in mood can be explained by reporting ESP and it was a significant predictor ($B = .670$, 95% CI [.146, 1.20]).
- Reporting Scale Item (14) "Encountering a mystical being/unidentifiable voice" was also found to be statistically significant on (A4) mood, ($F(1, 43) = 17.3$, $p < .001$); 30.8% of the variation in mood can be explained by encountering a mystical being/unidentifiable voice and it was a significant predictor ($B = .942$, 95% CI [.484, 1.39]).

Some correlations may have become significant if the sample size were bigger. I investigated this by adjusting the significance level five to ten percent as a way to project how the data would change as

a reflection of a bigger sample size (McKean, 2014). Fisher states that this may be done as, "It is convenient to take this point as a limit in judging whether a deviation is to be considered significant or not. Deviations exceeding twice the standard deviation are thus formally regarded as significant," (2017, p. 47). These correlations include –

- (A1) "Changes to one's current sense of happiness and life-satisfaction" with Scale Item (14) "Did you seem to encounter a mystical being or presence, or hear an unidentifiable voice?" (r = .287; p = .062),
- (A3) "Changes in social relationships" with Scale Item (6) "Did you have feelings of joy?" (r = .267; p = .088), and
- (A4) "Changes in mood" with both Scale Items (1) "Did time seem to speed up?" (r = .290; p = .069) and Scale Item (7) "Did you feel a sense of harmony or unity with the universe?" (r = .287; p = .065).

Relationships between Psychological Wellbeing Outcomes

An analysis using two-tailed Pearson's correlations coefficient was also carried out to measure if there were any relationships between the PWB outcomes.

Table 7
Aftereffects Compared to Themselves via Pearson's Correlation Coefficient

Wellbeing Outcomes	**A1**	**A2**	**A3**	**A3**	**A4**
A1. Do you believe that your NDE has led to long-term and continuing changes in your current sense of happiness and life satisfaction?	-				
A2. Do you believe that your NDE has led to long-term and ongoing changes in your perception of your life's purpose?	**.741**** p <.001	-			
A3. Do you believe that your NDE has led to long-term and ongoing changes in your social relationships in general (e.g., relationships with family, friends, co-workers, etc.)?	**.358*** p = .020	**.513**** p = .001	-		
A4. Do you believe that your NDE has led to long-term and ongoing changes in your mood?	**.445**** p = .003	**.454**** p = .003	**.310*** p = .045		-

- There is a very strong positive correlation between changes in (A1) one's current sense of happiness and life satisfaction with changes in (A2) one's perception of their life's purpose (r = .741; p < .001).
- There is a moderate positive correlation between (A1) one's current sense of happiness and life satisfaction and (A4) long-term and ongoing changes in mood (r = .445; p = .003).
- To a lesser extent, there is a positive correlation between changes in (A1) one's current sense of happiness and life satisfaction and (A3) ongoing changes in social relationships (r = .358; p = .020).
- There are also moderate positive correlations between changes in (A2) one's perception of their life's purpose with (A3) ongoing changes in social relationships (r = .513; p = .003) and (A4) ongoing changes in one's mood (r = .454; p = .003).
- There is also a low positive correlation between (A4) long-term changes in mood with (A3) long-term changes in one's social relationships (r = .310; p = .045).

Multiple linear regressions were carried out between the wellbeing outcomes to further investigate how they interact. The results of the regression with (A1) life satisfaction as the dependent variable indicate that only (A2) life purpose was significant (F(1,43) = 55.6, p < .001) and explains 58.2% of the variance. Life purpose was a significant predictor of life satisfaction (B = .934, p < .001).

(A1) Life satisfaction was a significant predictor of (A2) life purpose (F(1, 43) = 55.6, p < .001). The results of the regression indicate that life satisfaction explains 58.2% of the variance and that it was a significant predictor (B = .623, p <.001).

(A1) Life satisfaction and (A3) social changes together also impact (A2) life purpose, F(2, 42) = 35.8, p <.001. They accounted for 64.8% of the variance. Life satisfaction (B = .542, p <.001) with social changes (B = .197, p < .010) were significant predictors.

The multiple regression on (A3) social changes indicate that (A2) life purpose explains 26.3% of the variance on social changes and that it was a significant, F(1, 40) = 14.9, p < .001. Life purpose was a significant predictor of social changes (B = .716, p <.001).

The multiple regression on if (A4) mood could be significantly predicted by the other wellbeing outcomes indicate that (A2) life purpose accounts for 20.6% of the variance in the data and that it was a significant predictor of mood, F(1, 40) = 10.4, p = .003; (B = .539, p = .003).

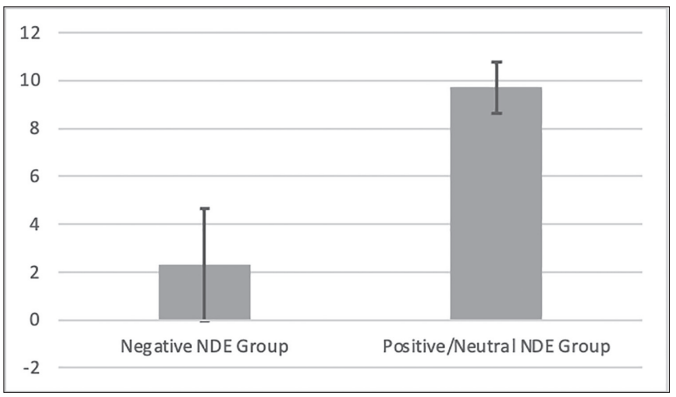
The Negative NDE Group

The researcher decided to look at the group of respondents who reported negative after-effects as a whole. This was calculated by noting who marked either, "Somewhat negative change that I see as undesirable," "Moderate negative change that I see as undesirable," or "Very negative change that I

see as undesirable," for at least one of the PWB outcomes measured. This group is called the "Negative NDE Group," for simplicity. The 8 participants who made up the Negative NDE Group (M = 2.3, SD = 4.1) compared to the 36 Positive/Neutral NDErs (M = 9.7, SD = 3.0) demonstrated significantly lower PWB scale scores $t(43) = 6.42$, p <.001, CI 95% [4.8, 10]. A visual representation of this can be seen in Figure 5. All violations of the parametric assumptions were checked for; there were none.

Figure 5

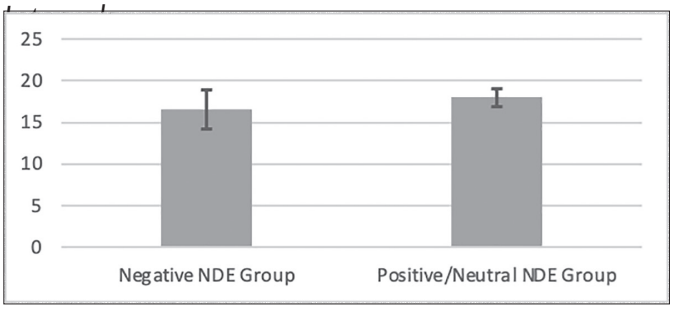
Negative and Positive/Neutral NDE Groups Compared to Wellbeing Scale Scores with 95% Confidence Intervals



Per an independent t-test, there were no significant differences between Negative NDErs (M = 17.3, SD = 9.3) and Positive/Neutral NDErs (M = 18.4, SD = 6.4) on the NDE Scale scores $t(43) = 3.77$, p = .06, CI 95% [-3.8, 6.1]. Thus, that there are no differences amongst people who report negative wellbeing outcomes regarding their NDE in the NDE population can be presumed. A visual representation of this can be seen in Figure 6. All violations of the parametric assumptions were checked for; there were none.

Figure 6

Negative and Positive/Neutral NDE Groups Compared to NDE Scale Scores with 95% Confidence

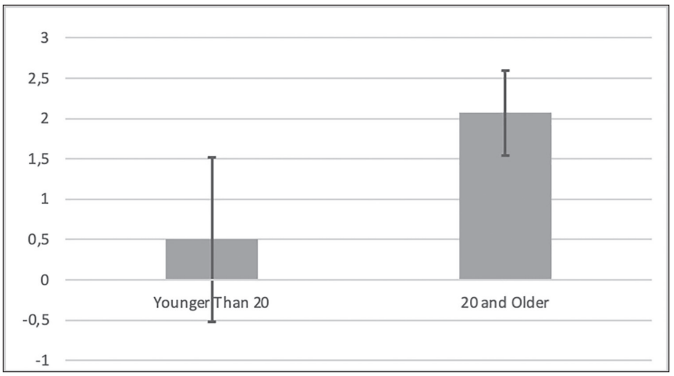


When first reading the Negative NDE Group answers, it became obvious that almost all the respondents of this group had their NDEs as a child or teen (younger than 20 and thus considered either a child or teen versus adult). This led to the idea to look into the "Younger Than 20 Group" and the "20 And Older Group" against the PWB outcomes. Thus, correlation between age of when the participant

had their NDE and the wellbeing outcomes were also analyzed. Regarding age, there were no significant findings except on the topic of age versus the belief that one's NDE has led to long-term and ongoing changes in their social relationships in general. Per a Shapiro Wilk test, the data for the Younger Than 20 Group was normally distributed ($W(14) = .94$, $p = .36$, CI 95% [-.63, 1.63]) and the 20 And Older Group was not ($W(30) = .70$, $p < .001$, CI 95% [1.51, 2.62]). Per a Mann-Whitney u-test, Younger Than 20 Group demonstrated significantly lower scores on social wellbeing ($U = 99.5$, $p = .007$). A visual representation of this can be seen in Figure 7.

Figure 7

Younger than 20 and 20/Above Compared to Social Wellbeing Scores with 95% Confidence Intervals



Conclusion

Analysis from the survey data revealed that children and teenaged NDErs may have social challenges unique to them when compared to participants who have had NDEs as adults. Due to their developing bodies and personalities, as well as the shorter span of life pre-NDE, those under 20 years old will perhaps have a lack of certain features in their NDE (e.g., life review or meeting deceased relatives) and perceive and cope with after-effects differently than an adult (Atwater, 1996; Sutherland, 2009). Furthermore, children and teenagers are more under the social sway of parents/guardians and society at large. As their personalities are still developing, an NDE would be a potential major catalyst for change in an already constantly changing personality that does not have much life experience to rely on for grounding. This finding is preliminary, however, and will need to be further examined.

The majority of participants ($n = 24$) (54.6%) stated that after-effects have been either very challenging, affecting or have affected major aspects of their life ($n = 12$), or that after-effects have been the most difficult or challenging experience of their life ($n = 12$). These challenges pervade the psychological wellbeing spheres of mood, social life, life satisfaction, and how one perceives/lives their life's purpose.

Though there is no relationship between life satisfaction and depth of the NDE, there is, however, a relationship between NDE depth and mood. This correlation is low, though, and so it may be inter-preted that the effect of how "deep" the NDE is on mood is not enough to permeate into other PWB outcomes. This analysis only measured the long-term changes to mood in relation to depth of the NDE; I would expect, given previous research, that the initial effect on mood would be much stronger (Moody, 1975). Perhaps if the sample size were bigger, there may have been a significant correlation between (A1) "Long-term and continuing changes in your current sense of happiness and life satisfaction" with Scale Item (14) "Did you seem to encounter a mystical being or presence, or hear an unidentifiable voice?" ($r = .287$; $p = .062$). If this were the case, then encountering a mystical being would positively correlate with three psychological wellbeing outcomes: happiness/life-satisfaction, changes in mood, and psychologically challenging after-effects.

Rather unsurprisingly, Scale Item (4) "Did you suddenly seem to understand everything?" has a relationship with (A2) "changes in the perception of one's life's purpose"; it makes sense that by under-standing everything, one comes to learn their life's purpose. Perhaps a surprising or at least, a peculiar finding is that (A3) "Long-term and ongoing changes in your social relationships in general" had a posi-tive correlation with Scale Item (1) "Did time seem to speed up or slow down?"

It can be interpreted that the more an NDEr reports positive changes in (A1) "Your current sense of happiness and life satisfaction," the more one reports ongoing positive (A2) "changes in their percep-tion of life's purpose," (A3) social relationships, and (A4) mood. It can also be interpreted that the more one reports positive changes in their perception of life's purpose, the more they report positive ongoing changes in social relationships and mood.

Social relationships, purpose in life, and mood contribute to happiness/life satisfaction, and we see in the data that these aspects of PWB are perhaps *negatively* influenced enough by an NDE or its after-effects to negate any positive influence from the NDE or its after-effects on life satisfaction, thereby confirming Greyson's hypothesis (1994).

However, aspects of psychological wellbeing such as mood, social relationships, and purpose in life are all things that are very tangible and germane to psychotherapy and other mental health professions. Mental health services may be considered as a valid and therapeutic aid in integrating NDEs and their after-effects, something which the literature points to (e.g., Greyson & Harris, 1987).

Happiness/life satisfaction and one's perception of life's purpose have a very close relationship. This leads me to hypothesize that due to marked changes in values and how one wants/needs to live their life according to them post-NDE, living the perceived purpose of one's life is central to the NDEr's life satisfaction, a hypothesis that Greyson also proposed (1994). Life satisfaction alone but also coupled with social changes were significant predictors of life purpose. Perhaps being satisfied with one's life and having positive social support enables positive changes in the NDEr's perception of life purpose. Life purpose was also a significant predictor of social changes and mood. Thus, life purpose is a signif-icant influence in all of the wellbeing outcomes. The therapeutic and clinical implications of this could be significant. This will be further investigated in the thematic content analysis of the questionnaire, as

well as in Study II, which involves in-depth interview. This mixed-methods approach was utilized to fully appreciate and more thoroughly investigate the wellbeing and lives of those who have had an NDE.

We also see that transcendental components (i.e., Scale Items 13–16, entering an otherworldly place, encountering a mystical being, seeing deceased or religious spirits, and coming to a point of no return), positively correlate with changes in mood; the more one reports transcendental components, the more ongoing positive changes in mood are reported. However, we can see that the only aspect out of four that make up the transcendental category, Scale Item (14) "Did you seem to encounter a mystical being or presence or hear an unidentifiable voice?," had a very strong positive correlation with mood (r = .555; p < .001) and was a significant predictor of it; to a lesser extent, Scale Item 10, experiencing ESP during the NDE also has a relationship with mood.

Scale Items 10 and 14, the experience of ESP and an otherworldly presence, seem to have a relationship with (A4) long-term positive changes in mood, perhaps as a person may believe that having encountered information psychically and encountering a being while near-death as evidence that there is some sort of "higher power" in the Universe, and that we are not alone. However, Scale Item 14 "encountering a mystical being/hearing an unidentifiable voice" was also identified as having a positive correlation with psychologically challenging after-effects, as did Scale Item 11 "seeing scenes from the future"; thus, as Greyson has stated, for many NDErs, integration problems may be sufficient to offset any influence of positive changes in life satisfaction (1994, p. 107). Furthermore, NDErs often report developing psychic or mediumship abilities after their NDE, which may involve psychological challenges, as well. More research would need to be conducted in order to investigate these relationships further.

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Expériences de mort imminente et bien-être psychologique : Une analyse quantitative

Résumé: Cet article présente les méthodes et l'analyse quantitative d'une d'enqute (n = 51) qui a exploré dans quelle mesure une expérience de mort imminente (EMI) dans son ensemble, ainsi que les éléments distincts de l'échelle NDE, sont associés des types particuliers de bien-tre psychologique (PWB). Ces résultats incluent des changements long terme dans 1) le bonheur/la satisfaction dans la vie ; 2) la perception du but de la vie ; 3) les relations sociales ; et 4) l'humeur. Selon le coefficient de corrélation de Pearson, la profondeur (c.--d. le score) de l'EMI n'a pas de corrélation avec les effets secondaires, l'exception de la conviction que l'EMI a entrané des changements de l'humeur continus et positifs long terme. L'humeur a été influencée par la composante transcendantale de l'EMI (r = .423 ; p = .006). Plusieurs éléments de l'échelle NDE sont liés des résultats spécifiques du PWB. Bien qu'il n'y ait pas de corrélation entre la profondeur de l'EMI et la satisfaction dans la vie, il existe des relations entre la satisfaction dans la vie et les autres résultats de la PWB, plus particulièrement avec les change-ments dans la perception du but de la vie (r = 0,741 ; p < 0,001). En outre, un test U de Mann-Whitney a révélé que les personnes ayant vécu une EMI âgées de moins de 20 ans au moment de leur EMI (n =14) ont obtenu des scores significativement plus faibles en matière de bien-être social (U = 99,5, p = 0,007).

Mots-clefs: Expérience de mort imminente, expérience exceptionnelle, echelle NDE, bien-être psychologique, parapsychologie

Nahtoderfahrungen und psychologisches Wohlbefinden: Eine quantitative Analyse

Zusammenfassung: In diesem Artikel werden die Methoden und die quantitative Analyse einer Umfrage (*n* = 51) vorgestellt, in der untersucht wurde, inwieweit eine Nahtoderfahrung (NTE) als Ganzes sowie die einzelnen Items der NTE-Skala mit bestimmten Auswirkungen für das psychologische Wohl-befinden (PWB) verbunden sind. Zu diesen PWB-Auswirkungen gehören langfristige Veränderungen in Bezug auf 1) Glück/Lebenszufriedenheit, 2) Wahrnehmung des Lebenssinns, 3) soziale Beziehungen und 4) Stimmung. Der Pearson-Korrelationskoe" zient zeigt, dass die Tiefe der Nahtoderfahrung (d. h. die erreichte Punktzahl auf der Skala) nicht mit den Nachwirkungen korreliert, mit Ausnahme der Überzeugung, dass die Nahtoderfahrung zu langfristigen und anhaltenden positiven Veränderungen der eigenen Stimmung geführt hat. Die Stimmung wurde durch die transzendentale Komponente der NTE beeinflusst (*r* = .423; *p* = .006). Mehrere Items der NTE-Skala standen in Zusammenhang mit bes-timmten PWB-Auswirkungen. Obwohl die Tiefe der NTE nicht mit der Lebenszufriedenheit korrelierte, gab es Beziehungen zwischen der Lebenszufriedenheit und den anderen PWB-Auswirkungen, vor al-lem mit der Veränderung der Wahrnehmung des Lebenssinns (*r* = .741; *p* < .001). Darüber hinaus zeigt ein Mann-Whitney-U-Test, dass Personen mit Nahtoderfahrungen, die zum Zeitpunkt ihrer Nahtoder-fahrung jünger als 20 Jahre waren (*n* = 14), signifikant niedrigere Werte für das sozialen Wohlbefinden aufwiesen (*U* = 99.5, *p* = .007).

Schlüsselbegri' e: Nahtoderfahrung, außergewöhnliche Erfahrung, NTE-Skala, psychologisches Wohlbefinden, Parapsychologie

Experiencias Cercanas a la Muerte y Bienestar Psicológico: Un Análisis Cuantitativo

Resumen: Este artículo presenta los métodos y análisis cuantitativo de un estudio mediante encuestas (*n* = 51) que exploró la medida en la que una experiencia cercana a la muerte (ECM), tanto como los ítems individuales de la Escala de ECM, son asociados con cambios particulares a largo plazo en el bienestar psicológico. Estos cambios incluyen 1) felicidad/satisfacción de vida; 2) percepción del propósito de la vida; 3) relaciones sociales; y 4) estado de ánimo. Según el coeficiente de correlación de Pearson, la profundidad (o puntuación) de la ECM no tuvo correlación con sus efectos posteriores, excepto por la creencia de que la ECM ha generado cambios positivos continuos y a largo plazo en el estado de ánimo. El estado de ánimo se vio afectado por el componente transcendental de la ECM (r = .423; p = .006). Varios ítems de la Escala de ECM se relacionaron con resultados particulares del bienestar psicológico. Y aunque la profundidad de la ECM no correlacionó con la satisfacción de vida, hubo relaciones significativas entre esta satisfacción y otros resultados del bienestar psicológico, más notablemente con los cambios en la percepción del propósito de la vida (r = .741; p < .001). Adicionalmente, una prueba *U* de Mann-Whitney reveló que los Supervivientes a las ECM, menores de 20 años al momento de su ECM (n =14), tuvieron puntajes significativamente menores en bienestar social (U = 99.5, p = .007).

Palabras clave: experiencia cercana a la muerte, experiencia excepcional, Escala de ECM, bienestar psicológico, parapsicología