

Electromagnetic Aftereffects of Near-Death Experiences: A Preliminary Report on a Series of Studies Currently Under Way

Capacidades electromagnéticas adquiridas como consecuencia de experiencias cercanas a la muerte:
Estudio preliminar introductorio a una investigación actual

Cheryl Fracasso
Saybrook University
San Francisco, CA, USA

Harris Friedman
Walden University
Minneapolis, MN, USA

Abstract

Reported near-death experiences (NDEs) have been associated with various extraordinary phenomena, including profound psychological, physiological, and spiritual aftereffects. One specific phenomenon involves electromagnetic aftereffects (EMEs) where technological and electrical equipment malfunctions for no apparent reason. This qualitative pilot study explored EMEs in those reporting NDEs. Ten NDErs were screened with the Near-Death Experience Scale (NDE Scale), and administered the Electromagnetic Effect Questionnaire (EMEQ) to assess EME depth and the Electromagnetic Phenomena Questionnaire (EPQ) to explore the phenomenological experience of EMEs. EME rates found among these NDErs (70%) were congruent with rates reported in previous studies. A preliminary analysis of a second study that is currently under way is also overviewed, highlighting that of 136 NDErs, 71% are reporting EMEs. While quantitative data have not been formally analyzed yet, three case studies are highlighted, and differences between NDErs with and without EMEs are explored.

Key Words: electromagnetic aftereffects, electromagnetic hypersensitivity, electrical sensitivity, near-death experiences, clinical implications, integration issues

Resumen

Algunos testimonios sobre experiencias cercanas a la muerte (ECMs) se han asociado con fenómenos extraños como intensas consecuencias psicológicas, fisiológicas y espirituales. Uno de estos extraños fenómenos está relacionado con el electromagnetismo donde equipos tecnológicos y eléctricos cercanos a éstas personas dejan de funcionar correctamente sin razón aparente. El presente artículo presenta una investigación piloto de tipo cualitativo donde se estudiaron los efectos electromagnéticos en diez personas que vivenciaron experiencias cercanas a la muerte. Se les pasó la escala de experiencias cercanas a la muerte (NDE Scale) y el cuestionario de efectos electromagnéticos (EMEQ) para evaluar la profundidad del efecto electromagnético, así como el cuestionario del fenómeno electromagnético (EPQ) para medir la experiencia fenomenológica del efecto electromagnético. El valor (70%) de éste tipo de consecuencias en los sujetos se mostró en concordancia con los resultados de investigaciones anteriores. En este artículo también se exponen los análisis preliminares de un segundo estudio que está siendo actualmente llevado a cabo, donde se destaca que de 136 personas con experiencias cercanas a la muerte, un 71% manifiesta efectos electromagnéticos. Aunque los datos cuantitativos no han sido todavía formalmente analizados, en este trabajo se examinan tres destacados estudios de caso y se presentan las diferencias de personas con ECM donde unas han tenido efectos electromagnéticos y otras no.

Palabras clave: efectos electromagnéticos, hipersensibilidad electromagnética, sensibilidad eléctrica, experiencias cercanas a la muerte, consecuencias clínicas, problemas de integración

Received: 17th July, 2012
Accepted: 23th December, 2012

Introduction

The widespread occurrence of near-death experiences (NDEs) is unequivocal, namely millions of people in the US have reported such experiences. This phenomenon is also rapidly growing, likely due in part to advancing techniques of resuscitation in which people are increasingly being brought back from the brink of death with NDEs to report. As a result, NDEs have captured the attention of researchers from various scientific fields, such as neurology (Greyson, 2010; Parnia, Spearpoint, & Fenwick, 2007) and quantum physics (Laws & Perry, 2010), as well as have captured the attention of the media, resulting in much public interest. What remains equivocal is whether NDEs can ever be confirmed as objectively real (i.e., veridical to some external criteria for defining reality) or whether they are to be relegated to merely being judged as subjective experiences that do not necessarily indicate anything objectively factual. If ever accepted as real, however, NDEs could provide a vehicle to openly address fundamental questions that have long interested humankind, such as whether consciousness can exist independently of a functioning brain and whether there might be an afterlife. NDEs seem to imply these are possible and, if so, these would undoubtedly have radical implications not only for science, but for every sector of human existence. Many scholars have recognized the profundity of these types of questions, as well as how research on NDEs may provide a unique avenue for their exploration (e.g., Carter, 2010; Fenwick, 2010; Greyson, 2010; Fracasso & Friedman, 2011).

Presently, although there are many theories used to explain (or sometimes explain away) NDEs, those based solely on reductionistic and materialistic views have weaknesses that cannot yet fully account for the many puzzling extraordinary NDE phenomena that are often reported. Most difficult to explain in a reductionistic and materialistic way are numerous dramatic aftereffects on those having NDEs (NDErs), such as reports of enhanced energetic (e.g., healing abilities) and psi (e.g., telepathy) experiences, along with profound changes in spiritual beliefs, values, and lifestyle (Fenwick, 2010; Greyson, 2010; Moody, 1975; Ring, 1980, 2006). One specific puzzling experience frequently reported involves electromagnetic aftereffects (EMEs) in which many NDErs claim increased sensitivity to lights, computers, phones, and other technology (Atwater, 2007; Nouri, 2008; Ring, 1992). These are particularly interesting as they are not just subjective, but are potentially amenable to so-called objective measurement and observation.

Ring (1992) was among the first to conduct scientific studies on the possible aftereffects of NDEs. He compared 74 NDErs with 54 controls, and found that the NDErs scored significantly higher in the following six categories compared to a control group: physical sensitivities, physiologic changes, neurological changes, energetic changes, emotional changes, expanded mental awareness, and changes in purported paranormal function. Ring also found that 49% of NDErs reported an increased sensitivity to lights, as well as various physiological changes (e.g., decreased rates of blood pressure, body temperature, and metabolic rate). Furthermore, 59% of the NDErs Ring studied reported an increase in experiencing energetic currents flowing through their body, 58% reported an increase in mind expansion, 61% reported increased psychic abilities, and 24% reported that they seemed to cause “electric or electronic malfunction” (p. 277), what we are calling EMEs, compared to only 7% of his controls. As an example, Ring interviewed one NDEr who stated:

I have a difficult time as many computers malfunction and lights blow when I walk under them. This has happened for years, and I tried to ignore this was happening. I simply cannot wear a watch for long before it breaks down. I went to...a department store and walked in front of their brand new computer and it quit working...When I held a fluorescent light in my hands, the entire bulb lit up, like it was turned on. It seemed like there was a lot of static electricity. (p. 159)

Other researchers have looked at EMEs reported by NDErs (e.g., Bonenfant, 2005; Nouri, 2008), but Atwater (2007) significantly extended Ring’s (1992) observations into this area. She found that an astounding 73% of nearly 3,000 NDErs she studied reported EMEs, which were not only stressful, but very costly (i.e., many reported having to consistently replace and/or fix various types of technology). Atwater (2007) stated:

Of the experiencers I interviewed, 73% percent fit this profile and gave numerous reports of electrical snafus such as microphones that “fought” them, recorders that began to “smoke,” computers that “crashed,” television channels that “flipped,” electronic memory systems that “wiped out,” or street lights that “popped” as they walked by, None could wear watches anymore without consistently repairing or replacing them. All of them reported a heightened awareness of electromagnetic fields in general. Experiencers claim to have a new awareness of invisible energy fields and a sensitivity to electricity and geomagnetic fields. Many claim to “see” sparkles or balls of energy in the air, the aura (or energy) surrounding all things, and to develop a sensitivity to meteorological factors such as temperature, pressure, air movement, and humidity. (p. 109)

More recently, Nouri (2008) looked at EMEs reported by NDErs by designing a self-report measure of EMEs. She divided participants into three groups to explore self-reported EMEs. Groups consisted of 36 NDErs, 20 participants who had a close brush with death but did not experience a NDE, and 46 participants who had not been close to death. Nouri found that 70% of the NDErs reported at least one problem with electromagnetic equipment within the past year, while many NDErs reported problems “all the time” (p. 83) depending on the device (i.e., lights, cell phones, computers, TVs, etc.), as compared to very low rates in both of the other two groups. Moreover, Nouri found correlations between EMEs and deeper NDE experiences, as reported by higher scores on the NDE Scale (Greyson, 1983). In short, the NDErs Nouri studied who reported deeper NDEs also reported more EMEs.

As for more scientifically credible laboratory research, as opposed to self-report measures, only one study could be located that specifically sought to measure EMEs of NDErs using technology. Knittweis (1997, p. 223) used a “thermistor and electroscope to measure heat and electron flow from participants’ hands” in a small sample of 7 NDErs and 10 non-NDErs. Knittweis found no differences between the two groups in measures of heat or electron flow.

The widespread reporting of EMEs by NDErs suggests this may be a fruitful avenue to explore. Because it is a commonplace claim by NDErs that is both extraordinary, by which we mean there is no ordinary explanation for this, and perhaps testable, it provides a good target for research. Again, if NDEs provide empirically accessible examples of the limitations of a reductionistic and materialistic worldview, it is important to help establish or refute the possible veridicality of their frequent claims. Likewise, because NDErs often find these EMEs stressful and costly, this is an important area of research in terms of practical benefits for helping NDErs cope, and even possibly flourish, with the aftermaths of their experiences (Atwater, 2007; Bonenfant, 2004, 2005; Nouri, 2008; Ring, 1992).

Subsequently, the first author conducted a qualitative study for her dissertation to gain a deeper understanding of the phenomenological experience of EMEs reported by NDErs, in addition to an in-depth exploration into various post-integration issues. Once the pilot study was completed, a second study was launched with co-researchers Kenneth Ring, Harris Friedman, and M. Scott Young in order to expand the study with a much larger sample size. Data from the pilot study are reported, as well as are preliminary data from the ongoing study.

Method

The pilot study utilized a mixed-method survey to collect both quantitative data as well as qualitative data using written self-reports. This included administration of the Near Death Experience Scale (NDE Scale; Greyson, 1983) to ensure that NDErs met a criterion for having had a NDE, and the Electromagnetic Effect Questionnaire (EMEQ) (Nouri, 2008) to judge the extent of their EMEs. Qualitative data was also gathered using the Electromagnetic Phenomena Questionnaire (EPQ; Greyson and Liester, 2011). The EPQ was used to gain a deeper insight into NDErs’ personal experiences with various types of electromagnetic after-effects, as well as any post-integration issues this experience may be causing in their lives.

The second study also utilized a mixed method survey to collect data for phase one, followed by in-depth interviews for a few randomly selected participants who reported EMEs.

Research Design

The pilot study began with administering a series of questionnaires to participants via an online survey site in order to gain deeper insights into the phenomenological experience of EMEs, and various post-integration issues. Once the pilot study was completed, a second phase of this study (currently in progress) was launched, which is utilizing a mixed methods approach of collecting qualitative and quantitative data via an online survey site, followed up with in-depth interviews for randomly selected participants who reported EMEs. A third phase of the study is also currently in progress, where we are exploring electrical sensitivity reported by non-NDErs to qualitatively ascertain their similarities and dissimilarities from those of NDErs who reported EMEs.

Participant Selection and Recruitment

A convenience sample of NDErs was recruited from the Near-Death Experience Research Foundation website (<http://www.nderf.org>), and from snowball sampling by referral from experts in the NDE field. Advertisements were placed with various support groups nationally from the International Association for Near-Death Studies (IANDS), a newsletter announcement was sent by P. M. H. Atwater, and advertisements were also placed on the first authors' website, Near-Death Experience Information and Research (<http://www.near-deathexperienceresearch.com>). After signing a consent form, participants were screened using Greyson's (1983) NDE Scale to ensure they met the minimum cut-off score of 7. Both studies were approved from Saybrook University's Institutional Review Board (IRB).

Pilot Study Details: Phase 1

Instruments

Participants were administered the NDE Scale and the Electromagnetic Effect Questionnaire (EMEQ), as well as the Electromagnetic Phenomena (EPQ), online. Additionally, demographic information was collected. Note, this phase of the study was the first author's dissertation which was supervised by the second author, Harris Friedman (Fracasso, 2012).

1.- Near-Death Experience Scale

The NDE Scale (Greyson, 1983) consists of 16-items in a Likert-type multiple-choice scale that has been widely used in the field to establish NDE criteria and tease out false positive and false negative reports. The scale consists of four sets of categories that assess cognitive, affective, paranormal, and transcendent NDE characteristics, and participants must score a minimum of seven points to meet NDE criteria, with a maximum range of 32 possible points. Greyson's (1983) scale has been shown to have high rates of reliability and validity in screening out those who had a close encounter with death but did not experience a NDE, as compared to those who had a NDE (Greyson, 1983, 1997, 2001, 2003, 2007). According to Greyson (2007), the scale has high internal consistency, split-half reliability, and test-retest reliability, as follows: "mean scores and standard deviations on the two halves were 7.64 ± 4.22 and 7.38 ± 3.94 ; the resultant Pearson Product-moment reliability coefficient between the two halves was .84, Spearman-Brown corrected to .92" (p. 373). In this same study, internal consistency of this scale using Cronbach's coefficient alpha for the entire NDE Scale was .88, while reliabilities for subscales were .75 for the cognitive component, .86 for the affective component, .66 for the paranormal component, and .76 for the transcendental component.

2.- Electromagnetic Effect Questionnaire

The EMEQ (Nouri, 2008) is a 5-point Likert scale that consists of 16 questions with five main sections. Nouri reported high internal consistency on four of the scales and the total scale, and an acceptable rate on the remaining scale, namely Cronbach alphas of .88 for the light scale, .93 for watches, .64 for computers, .89 for cell phones, .94 for emotional state, and .94 for the entire scale. Nouri also reported evidence of convergent and divergent validity.

3.- Electromagnetic Phenomena Questionnaire

The EPQ (Greyson & Liester, 2011) consists of 59 questions designed to explore in-depth details about EME activities. The questionnaire consists of a mix of yes/no questions, followed up with qualitative questions that ask participants to describe specific details of their experience. For example, question one asks, “Do you have problems wearing watches?” If participants answer “yes,” they are then asked to elaborate on “why.” The EPQ thoroughly addresses various types of equipment, such as specific questions about lights, computers, TVs, car batteries, and so on, along with participants’ perceived levels of difficulty with these technologies, and how often these experiences occur.

Main Study Details: Phase 2

This phase of the study is an extension of the first author’s dissertation, and as mentioned above, is being conducted by the first author and co-researchers, Kenneth Ring, Harris Friedman, and M. Scott Young.

Instruments

This phase of the study used the NDE Scale (Greyson, 1983) to screen participants for NDEs, and used a different series of questionnaires for a more in-depth exploration of EMEs. Specifically, the EMEQ and EPQ were not used in this phase of the study, and instead, the first author and co-researcher Kenneth Ring, designed a new questionnaire, and added the Psychophysical Changes Inventory (PCI), and the Life Changes Inventory-Revised (LCI).

1.- Electrical Sensitivity Inventory

This questionnaire was developed by Ring and Fracasso (2012) and consists of four main sections. The first section, of the Electrical Sensitivity Inventory (ESI) consists of 5 questions designed to screen participants for electrical sensitivity. This is followed by the Electrical Sensitivity Questions section, which consists of 10 questions designed to gather details about issues with specific technologies, such as cell phones, lights, computers, etc. Answers are on a Likert-5 point scale, ranging from never, sometimes, often, always, and all the time. This is followed by 14 General Sensitivity Questions, which are designed to explore other correlates or antecedents that may go along with electrical sensitivity. For example, we ask questions about allergies, chemical sensitivities, psychic phenomena, both before and post-NDE. Answers are on a Likert-5 point scale, ranging from never to all the time. The final section, Medical History Questions, consists of two questions about their exposure to electrical fields in general, either via a previous major surgery, or resuscitation that may have involved electricity (i.e., heart paddles).

2.- Psychophysical Changes Inventory

Ring’s (1992) Psychophysical Changes Inventory (PCI) consists of 60 questions, with 6 subscales, designed to measure various physical and psychological aftereffects of NDEs. This Likert-type scale has three possible answers that are rated as follows: agree (1 point), disagree (-1 point), and not sure (0 points). Scores range from 0 to 60 on this scale, with higher scores indicating a greater change in physical or psychological changes. The 6 subscales consist of the following: physical sensitivities, physiological and

neurological functioning, psychoenergetic functioning, emotional functioning, expanded mental awareness, and paranormal functioning, and are also scored separately.

As of this date, no psychometrics have been developed on this scale, so factor analysis and reliability statistics will be included as part of this study.

3.- Life Changes Inventory – Revised Questionnaire

The Life Changes Inventory Revised (LCI-R) (Greyson & Ring, 2004) will be administered as part of an exploratory study. The Life Changes Questionnaire (LCQ) has been the most widely used measure in the NDE field to measure attitudinal aftereffects, and was originally developed by Kenneth Ring in 1984, and was renamed the Life Changes Inventory (LCI) in 1990. This measure was revised by Greyson and Ring in 2004 and was renamed the Life Changes Inventory Revised (LCI-R). However, in its 27 years of use and revisions, it is unclear whether this is a valid and reliable measure, since no validity and reliability measure have been established. The current LCI-R (Greyson & Ring, 2004) consists of 50 questions and 9 subscales on a Likert 5-point scale with answers ranging from, strongly increased, increased somewhat, not changed, decreased somewhat, to strongly decreased. Overall, participants are instructed to consider the statement “Since my near-death incident...” at the beginning of all of the questions. For example, question one is: “my desire to help others has”...while question two is: “my compassion for others has.” Scores for each of the items range from (+2) to (-2). Specifically, items are scored as follows: “strongly increased” (+2), “increased somewhat” (+1), “not changed” (0), “decreased somewhat” (-1), and “strongly decreased” (-2). The scale also yields nine subscale scores, as well as a global scale score, with higher scores indicating higher levels of attitudinal changes post-NDE.

Pilot Study Results: Phase 1

The data were analyzed to address the research questions examined in this study, as follows: What are the features of the phenomenological experience, as reported by NDErs in regard to their EME experiences reported on Greyson and Liester’s (2011) Electromagnetic Phenomena Questionnaire (EPQ)?; and What, if any, are the most commonly reported electromagnetic issues post-NDE?

Description of the Participants

Ten individuals fully completed the pilot study survey. Of these 10 participants, all met the minimum criteria (score of 7) on the NDE Scale to be seen as having a NDE. Out of the 10 participants, 9 completed the demographic section. Eight were females, 1 male, and 1 unknown, and ranged in age from 21 to 63 with a mean age of 43. Nine participants were Caucasian and 1 was unknown. Seven reported living in the US, 1 in Australia, 1 in Sweden, and 1 unknown. In regards to current marital status, 5 reported being single, 3 married/living with a partner, 1 was separated or divorced, and 1 was unknown. Prior to their NDE(s), 6 were single, 2 married/living with a partner, 1 was separated or divorced, and 1 was unknown. In reference to current education, 1 reported some high school, 3 some college, 1 some graduate school, 3 a masters degree, 1 a doctoral degree, and 1 was unknown. Prior to their NDE(s), 2 reported completing some high school, 1 completed high school, 1 completed trade school, 2 completed some college, 1 completed an associate degree, 1 completed a bachelors degree, 1 completed a masters degree, and 1 was unknown.

Participants reported current religious/spiritual preferences as 1 Christian, 1 Buddhist, 1 Latter-Day Saints/Mormon, 2 “spiritual,” 1 “atheist,” 1 Native American, and 1 “nature,” 1 “other,” and 1 unknown. Seven reported their NDE was caused through an accident or injury, while 3 reported through an illness (note: 3 of the participants reported having more than one NDE, so these figures were calculated based on the participants’ first NDE). Likewise, calculating time in years since their NDE(s) was challenging, since multiple NDEs were reported by several participants. Subsequently, based on the date of the first NDE

reported by all participants, time in years since their first NDE ranged from 5 to 47 years ago, with a mean of 21 years.

Quantitative Results

Reliability measures of the scales.

In the pilot study, internal consistency using Cronbach's alpha on the NDE Scale ranged from excellent to unacceptable, as follows: .91 for the total score, .85 for the cognitive scale, .46 for the affective scale, .82 on the paranormal scale, and .52 on the transcendental scale. Thus, despite the small sample size, NDE Scale reliability ranged from excellent on the overall total scale score, good on the cognitive scale, good on the paranormal scale, poor on the transcendental scale, and unacceptable on the affective scale. Internal consistency using Cronbach's alpha on the EMEQ scale in this study also ranged from excellent to good, with a total scale score alpha of .94, .84 on the light scale, .95 on the watch scale, .86 on the computer scale, .91 on the cell phone scale, and .88 on the emotional scale.

Qualitative Results

This section provides a qualitative analysis of the phenomenological experience of EMEs reported by participants in the pilot study. This includes an examination of the predominant themes and categories that emerged from the data.

Data Analysis for Research Question 1

The data analysis for Research Question 1 resulted in five main categories emerging, namely problems with watches/clocks/batteries, lights, computers, cell phones, and other electromagnetic phenomena (problems with a wide range of other electrical appliances). Likewise, how participants experienced electromagnetic fields and electricity in general was examined, in addition to their perceived explanations for why these phenomena occur.

Watches, clocks, and batteries

For watches, clocks, and batteries, 6 of the participants reported having some type of problem. Four rated these problems as very high, while 2 reported high levels, and 4 reported no problems. For example, to the question "Sometimes I notice my watch or clock running too slow," 6 of the participants stated they agreed, and 4 of them reported that this has caused so many problems that they have reduced or stopped wearing watches of any kind as a result. Likewise, 6 reported that unusual problems consistently occurred with watches or clocks in their presence, and 5 reported that they simply stop working or keep time incorrectly, while 4 reported that the battery goes out quicker than it should. Three reported that watches will continue running but keep time incorrectly, and that battery powered watches and wind-up watches created the most problems (8 answered they did not know if solar powered watches caused problems since they had not used this type of watch before). Five of the participants reported that it takes between hours to weeks for a watch to malfunction after putting it on, and 4 reported that this has happened with ten or more watches. One participant stated:

My NDE happened at age 4 or 5 in 1969/1970, although I think I got my first watch at around age 7 and it started happening at that time. I cannot remember a time when I was able to wear a watch without it either ceasing to work completely or having to change the battery constantly only to find that the watch would still not keep accurate time and the battery would become completely drained in a short amount of time. I did not relate this to my NDE until years later when I read about this

particular aftereffect. My mother was always asking me what I was doing to my watches, as it happened so often she thought I was somehow sabotaging them. I have not worn a watch for a very long time.

Lights

On the EMEQ light scale, 9 of the participants reported having some type of problem with lights flickering on or off, burning out too quickly, or actually exploding, in the case of two participants. Two reported very high levels, 4 high levels, 3 moderate levels, and 1 reported no problems with lights. What's interesting to note is that while only 7 of the participants reported EMEs, 2 of the participants who did not report EMEs actually scored high enough to meet criterion for this scale. To the question, "Sometimes I notice that in my presence, lights flicker or go off and on by themselves," 8 reported that they agree to strongly agree, while 4 reported that lights that should remain steady will sometimes spontaneously dim or brighten, or turn on and off when in their presence. One participant reported that not only do light bulbs flicker and dim in her presence, but have actually exploded occasionally when she is near them.

Computers

Six of the participants reported having some type of problem with computers, and 2 reported that they try to avoid the use of computers because they have experienced so many problems with them. Two reported very high levels, 3 reported high levels, 1 moderate levels, and 4 no problems. To the question, "Computers seem to malfunction when I am near them," 6 reported they agree to strongly agree, and also reported that it was to such a degree that it was noticeably different compared to others who do not have these same sort of problems. One participant reported:

My son has built a few computers for me and finds it strange that they seem to run fine when he has tested them but when I start to use them they behave strangely. Examples would be fans in the tower running at extremely high speeds, monitors switching off by themselves, and even the clock on the monitor doesn't keep time properly.

Participants also reported that this experience was very stressful and costly, requiring constantly having to replace or repair things.

Cell phones

Six of the participants reported having some type of problem with cell phones, with the most common problem reported being calls that involved static or cut off unexpectedly, more than other people who have a similar service. One participant reported that she has reduced or stopped her use of cell phones because she has had so many problems with them. One participant reported very high levels, 2 high levels, 3 moderate levels, and 4 no problems. One participant reported being especially agitated by the use of cell phones, "I am very bothered by the use of cell phones and almost always have mine off. I can't say for sure what is going on, but it agitates me greatly to be on cell phones. I keep my phone on off most of the time because it bothers me with some kind of static energy." Overall, the most common complaint from participants in this sample involved cell phones dropping calls, or producing a lot of static that interferes with the reception.

Other electrical appliances

In addition to issues with lights, watches, clocks, batteries, computers, and cell phones, 7 of the participants reported problems with other types of electrical appliances when they were near them. For example, one participant stated that "fuses keep blowing in my microwave and vacuum cleaner," and when she takes them to the repair shop to get them fixed, she is usually told that there is nothing wrong with them. Six of the participants reported being able to sense the presence of electromagnetic fields around them when others do not, and reported that they are able to sense this through a vibration or other tactile sense that others

do not. One participant reported being able to sense electromagnetic fields by seeing a color or light occasionally: "Not always but on occasion I do see light around them (electromagnetic fields), and sometimes something like a grid or wave of energy around them. I also sometimes see color. I also see strong waves of energy in my room at night, often. I do healing work and can feel energy on other people."

Six reported feeling nauseous, queasy, or dizzy around electricity or high electromagnetic fields, and one participant expressed ongoing problems with attracting and/or generating a lot of electricity, as follows:

I seem to generate or attract a lot of electricity myself and have to be careful touching metal objects as I am always getting a small electrical shock. This can happen when reaching for a can on a supermarket shelf, opening and closing a vehicle door, or brushing the dog etc. I know this happens to other people but it happens to me constantly. Also on windy days it becomes particularly bad with clothes that I have been wearing (made from natural fibers) becoming alive with electricity.

Six participants also reported that they sense electromagnetic fields by hearing a hum or other noise that others do not. One participant reported this experience particularly stressful and stated, "Yes, and augh!! I hate that! Annoys me!!" She continued, "We have had so much paranormal activity in the home, I didn't think to connect it with my emotional state, so I'm not sure if my emotional state is related to this or not. I have heard noise in my house often when no one is there, likely from electrical power surges coming through. I don't know how to explain it but the family also notices it."

In conclusion to question one, the predominant themes emerged into the broad categories of watches/clocks/batteries, lights, computers, cell phones, and a range of other problems with electrical appliances, along with ways that participants experience being around electromagnetic fields and electricity in general. Watches, clocks, and batteries were the most commonly reported issue in this sample, with 6 reporting ongoing problems. Nine participants also scored moderate to high in the light category. In summary, 7 reported ongoing problems with a range of other electrical appliances. Computers and cell phones were the next commonly reported issue with 6 reporting ongoing problems, followed by 4 who reported ongoing problems with TVs and radios. Likewise, 6 reported feeling queasy, dizzy, or nauseous around electricity and/or electromagnetic fields, with 6 who reported sensing electromagnetic fields that others do not by either hearing a hum, or sensing energy with some other type of tactile sense.

Data Analysis for Research Question 2

The data for Research Question 2 were partially addressed in question one, which highlighted that the main electromagnetic issues experienced post-NDE fell into broad categories such as watches/clocks/batteries, lights, computers, cell phones, and a range of other problems with electrical appliances. However, other themes emerged that appeared to be related to those who reported EMEs.

The first category that emerged from the data was stress-related and/or integration issues, as a number of NDErs reported that not only are these experiences costly in having to constantly replace electrical appliances or equipment, but that there were also ongoing issues of not being believed by family, friends, or others. Interestingly, other categories that emerged included high rates of allergies and chemical sensitivities, many of which began occurring after the participants' NDE(s). Another interesting category that emerged was enhanced sensitivity to geomagnetic activity, such as being able to sense earthquakes, tornadoes, thunderstorms, and other weather patterns before they occurred, as well as increased psi experiences. Below is a detailed overview of the predominant categories that emerged from the pilot study data.

Stress-related and/or integration issues

Some additional comments that participants shared revolved around some of the stress and/or integration issues associated with experiencing EMEs. One participant expressed the following in regard to problems this has caused at her place of employment, as well as by not being believed by others:

For a long time I thought I was going nuts so it created it's own set of problems, and it gets damn expensive getting things checked and fixed all the time, not to mention people thinking you're nuts, or doing something weird. The stress at work is unbearable some times, but I deal with it. It is sad that people think I am not very smart and always seem surprised at how smart I really am. I just can't operate electric things well, which in this day and age is not good or fun. Additionally, computers and cell phones, as well as a few other devices frequently act up, go out, or stop working for no apparent reason. I have been told many times by the repair people that there is nothing wrong and have no clue why it is doing what it is doing, and then they start to work. I can be doing something on a computer no problem, and then for no reason it won't work and people can see that I am doing things correctly, and have no idea why it is not doing it for me, and then I will walk away and it works fine. I lose homework and e-mails or have 4 day delays getting an e-mail or dropped calls. My car battery goes out faster than it should with no other electrical problems, same with wiper motors and what not. The final thing is it is getting to the point I can not have anything electric in my bedroom so I can sleep, and it is also affecting my work to the point of being written up. I joke about it as well with people who know me, but it has had an impact on my life.

Clearly, this experience is having a great impact on her life, to a point where she is being written up at work due to consistent problems with being able to use the cash register properly due to EME issues.

Other issues that participants reported included not being believed by others, which often resulted in suppressing sharing the experience, as well as challenges noted by 6 of the participants who reported feeling nauseous, queasy, or dizzy in the presence of electricity or electromagnetic fields. One described this as follows:

The worst is florescent lighting or electrical stores. I get severely sick in my husband's electric car. Also, I can just say that I hate batteries of any kind and complain of feeling sick or out of sorts with electrical stuff, so I don't use them much. Going into a video/electronics store used to make me feel that I was going to faint, and I still occasionally get ill when I am in there and have to sit down or leave.

Other issues reported were problems with high rates of static electricity and constantly being shocked, such as a report that:

I seem to generate or attract a lot of electricity myself and have to be careful touching metal objects as I am always getting a small electrical shock. This can happen when reaching for a can on a supermarket shelf, opening and closing a vehicle door, or brushing the dog etc. I know this happens to other people but it happens to me constantly. Also on windy days it becomes particularly bad with clothes that I have been wearing (made from natural fibers) becoming alive with electricity.

Allergies and chemical sensitivities

In this sample, 6 reported having allergies. Three reported that their allergies began after their NDE(s), while one reported that she has had allergies since childhood, and the other two participants were not sure if their allergies began before or after their NDE(s). One reported that she has, "slight allergies to dust and dog/cat dander," and elaborated that, since her third NDE, her "allergies have gotten worse instead of better like most who grow out of them."

In reference to chemical sensitivities, 7 reported sensitivities to various chemicals. Four reported that these began after their NDE(s), and three were not sure if these sensitivities began before or after their NDE(s). One participant reported that “I am very sensitive to anything that is not totally pure. Foods need to be organic with no chemical ingredients or I begin to feel very sick and my body is wracked with pain. I have more pain with gluten, too. I am in pain all over with ingestion of chemicals. If I smell chemicals, I feel sick and get headaches.”

Sensitivity to geomagnetic activity

Another interesting theme that emerged was that 5 of the participants reported enhanced sensitivity to geomagnetic activity, such as being able to sense earthquakes or other types of weather patterns before they occurred. One participant described this as follows:

I also am very sensitive to weather patterns it seems. It tends to fluctuate more up here in the mountains so I am more aware of it, it seems, on top of damaging my inner ears a couple years back, and they still cannot figure out why or how that happened, and that it is like walking inside of a lava lamp daily. Which is funny because the sensitivity acutely has helped me adjust to my surroundings better when I know the weather fluctuates. The sometime hyper-sensitivity has increased greatly after the third incident (NDE). I can feel a 3.2 earthquake before it occurs, and have proven this to my doctors on numerous occasions.

Psychic and/or healing abilities

Another interesting category that emerged was alleged psychic and/or healing abilities. Five of the participants reported experiencing these after their NDE(s), while three reported they were unsure. One participant shared a compelling account of her experiences as follows:

Much of what has changed in my life is from my association with inter-stellar beings who communicate with me and with my own growth through self-examination. It has been a process, not something that immediately occurred after I died. Additionally, my experience was blocked from consciousness because of the nature of the death: I was over-medicated. It was not until 20 years later that I had a spontaneous recall of being brought back to life in the recovery room by a team of doctors, gagging and gasping for breath as they did whatever they did under bright lights. Wherever I went while I was dead, I did not have a clear channel of perception.

What is particularly compelling about her experience is she did not have a spontaneous recall of her NDE until nearly 20 years later and, second, she reported experiencing ongoing communication with inter-stellar beings. This is similar to reports in the literature where many NDErs reported being able to see and/or communicate with angelic beings and/or spirit guides following their NDE(s) (Atwater, 2003; Clark-Sharp, 1995).

The reported ability to speed up or slow down time is another area that emerged, and is one that has rarely been examined in the NDE literature. One participant claimed:

What happened for me was not electromagnetic (I don't think). But after the NDEs I became aware of my ability to speed up or slow down time as needed. This is not about the watch being broken or the batteries going dead. In fact, it works best when I consciously do NOT look at a clock or watch when I need to shift time. I just send the intention of arriving at a certain time and it happens. I do not use this randomly. Probably only one or two times a year - if that. But it is something I value highly as a gift of my NDEs.

Emerging Characteristics of NDErs with and without EMEs

After identifying the predominant themes that emerged, as discussed in research questions one and two, the pilot study data highlighted differences between those who reported EMEs and those who did not. Overall, 7 of the participants in this sample reported EMEs, while 3 did not. Subsequently, when comparing EMERs to non-EMERs, all 7 of the EMERs were female and 6 reported having allergies and chemical sensitivities, while 5 reported enhanced sensitivity to geomagnetic activity and various other weather patterns before they occurred, and 5 reported having ongoing ranges of psi experiences post-NDE. When solely examining NDErs who did not report EMEs (3 participants all together), in contrast it was found that only 1 reported having allergies and chemical sensitivities, and none of the participants reported experiencing any sort of sensitivity to geomagnetic activity, in addition to any type of psi experiences post-NDE.

Preliminary Results of the Main Study: Phase 2

While we have not conducted a formal data analysis on the quantitative data for this study yet, we have collected data for 136 NDErs thus far, and 71% are reporting EMEs. A preliminary analysis of the data also indicates that participants who reported EMEs are also reporting higher rates of allergies, chemical sensitivities, and higher rates of psi experiences compared to NDErs who do not report EMEs, as found in the pilot study. A formal data analysis will be completed with further details soon.

We have also completed in-depth interviews with 22 participants who reported EMEs. Below is a brief overview of what the qualitative data is revealing, as highlighted by three case studies. Note, these interviews were conducted by the first author, and the use of the “I” in these case studies refers to her as the interviewer.

Case Study 1

Greg is a 51-year-old male who had his NDE on August 3, 2011 due to a sudden and unexpected cardiac arrest while he was at work. He was in perfect health prior to this, and still remains in excellent health to this day, and the doctors were baffled by this since they still cannot determine what caused this. Greg, who works as a paramedic, states he suddenly felt dizzy and then all of sudden dropped to the ground. He says he felt himself come out of his body and was in a sudden deep darkness that was the most peaceful thing he has ever experienced. He was aware of many spirits around him, but was met by his deceased mother who passed away 30 years ago. He says they had extensive telepathic communication, but when he returned he has no memory on the specifics of what they talked about. Greg states that he was very depressed for two months post-NDE because he had to return to this life. Although he does not recall being given a choice to stay or return, he states he was just suddenly back in his body and very confused about what had just happened to him. Because Greg’s NDE is so recent, I asked him if he tried to talk with anyone about this. He said he tried to talk to his minister at first, but he was of no help, and a few other people who looked at him like he was crazy. He says he was able to talk with Howard Storm, who is a well-known NDEr, and that Howard was of some help in at least validating that he understood what he had been through.

One of the first things Greg noticed within a week post-NDE is a sudden inability to wear watches. He went through several watches where the batteries would simply wear out within a few days, resulting in his throwing them in the garbage and buying new ones. He saved all of them and noticed that when he put them in the drawer they would work, but when he tried to wear them the watches would simply stop. He states the only kind of watch he can wear is solar powered, which seems to be working fine so far. He also noticed lights blowing out around him pretty consistently, and that the TV would occasionally change channels by itself. He states that clocks in general will stop working when he is around them, and shared a specific story about the grandfather clock which has been in his family for years. When he is around the clock it stops working, but when he steps back it will start working again. Others in Greg’s family have noticed this

as well. The alarm clock also sporadically works, and sometimes the alarm will go off when he sets it, while other times it won't. Cell phones also drop calls constantly. And Greg reports that none of this activity occurred prior to his NDE.

One intriguing thing about Greg that I have not heard from other NDErs is that he vibrates post-NDE. A certain part of his body, such as his arm or leg will randomly start vibrating and it can be physically seen and heard by others. He states it sounds like a cell phone that is set to the "vibration" ring tone vibrating on a table. He says he is very embarrassed by this and tries to hide it from others when it happens. But people will say to him, "Your cell phone is vibrating"—when in fact it is him who is vibrating. He has been to several different doctors and has been through numerous tests and they can find nothing wrong with him, nor pin down a reason for this, as these are not muscle spasms. He says it does not hurt when this happens. He says this used to happen several times a day right after his NDE, and now it occurs about once per week. When I asked him if his emotional state made a difference he said it didn't, it happens when he's relaxed, at work, and at other random times.

Greg also reports being aware of a presence that is around him all of the time, where he will see flashes of light or a shadow off to his corner. While he does not receive communication from this being, he knows that it is always around him. He also reports an incident where there were a series of deaths at work (as a paramedic) where the deceased people would come to him in dreams, but in the dreams they were fully healed. Greg thinks this event occurred so that he could see and learn that people are not just their bodies and what they appear in this life. One specific incident was a "meth addict" who overdosed and was also a hooker. In Greg's "dream" he was able to see beyond her body and his judgments about her. Another interesting incident happened where Greg physically saw a deceased man. He had arrived on the scene following a call that a lady's husband was dead in the basement. When Greg arrived there was nothing they could do since the man had been dead for a few hours, but Greg reports physically seeing and communicating with the man's spirit, who wanted him to get a message to his wife. Greg said this scared him and he didn't know how to help, let alone he was afraid everyone would think he is crazy, so he rushed out of the basement and never said a word to anyone.

Greg also says that post-NDE he is not able to tolerate loud noises, and has noticed a difference physiologically. He says he had slight allergies prior to this NDE but has noticed a substantial increase post-NDE. He also says he suddenly lost a desire to eat any sort of red meat, and used to love to go fishing, but says he can't anymore because the thought of hurting any animal is intolerable to him. This compassion also extends to other people as well.

Case Study 2

Mary Lynn is a 49 year old female who had her NDE on August 17, 1987 due to a gun shot she obtained during a home invasion. She was shot in the abdomen and bled out, and was dead on arrival (DOA) when being rushed to the hospital. After being revived she was in a coma for many days. She had an extensive NDE—including an out of body experience (OBE) in which she saw resuscitation efforts taking place around her. Unfortunately, when Mary Lynn tried to tell the nurses that something "profound had happened to her" she was invalidated. A few months later she also tried to tell her priest (she was raised Catholic) and was also ignored, and so learned very quickly to not talk about her experience with anyone. It was not until about a year ago when Mary Lynn finally started talking about it with others, following reading a book on NDEs which she said finally "validated" what she knew she had experienced.

Mary Lynn has profound aftereffects that started occurring immediately following her NDE. The first thing she noticed was an ability to "feel" people's emotions and "read" people's thoughts from across the room. She also has ongoing premonitions that occur in both dreams or in a waking state that would unfold in physical reality. She shared an example of seeing a plane crash in Houston in a dream back in the 1990s, which woke her up in a state of panic and distress. The very next night on the news the plane crashed in Houston exactly as she saw it in her dream, and she states that her husband can testify to this premonition. She also senses exact places in the body where people are ill. She has no explanation for how she does this,

other than to say she feels the pain and discomfort and gets a feeling of being sick when touching her hands over specific areas. She also senses this with animals, and describes them as “hot spots.” As for other premonitions, these occur on a regular basis as well. She sensed that her son was going to be in a car wreck 7 years ago, and also “knew” and “saw” that her friends’ son was going to die in a car wreck. When I asked her why she thinks she experiences this since there is nothing she can do to stop or prevent it, she stated that she felt it was to prepare her for what was about to occur.

Mary Lynn also noticed problems with electrical sensitivity immediately following her NDE, which has expanded as more technological advancements have come out. One of the first things she noticed was feeling a sense of being “electrically charged” in which she was constantly receiving severe shocks from light switches, to a point where people around her could physically see electricity discharging from her. She states she was even able to share the “electrical charge” running through her with her x-boyfriend who was paralyzed, who was able to sense, feel, and connect with her energy during moments of intimacy. She actually started crying when sharing this, as it was so deeply moving to her that she could use her energy in a positive way to touch others. She cannot tolerate anything that has a battery in it. She states her laptop, for example, gets really hot and will blow out within a month. The same thing happens to her with landlines, cell phones, and anything that is operated by a battery.

While she struggles with the annoyance of many of these electrical sensitivity aftereffects and constantly having to repair or replace items, she says that it is also a gift. She has ongoing communication with animals and shared an example of being in nature, or “communing” as she called it, and suddenly having over 100 lady bugs gather all over her body. These experiences happen to Mary Lynn on a daily basis and she feels truly blessed by them.

One interesting thing she shared is that she has to be careful around pregnant women who are within a month or two of giving birth. She stated that for some reason when she is around pregnant women and lays her hands anywhere close to the fetus they will go into labor. This happened with about 5 or 6 women after being around Mary Lynn, where the babies were born about a month early. Fortunately, the babies were all OK, but she says she is now hesitant about being around women in this advanced stage of pregnancy. When I asked her why she thinks this occurs, she said she was not sure, but had wondered if the babies were tuning into her “energy field” and “love” and were somehow drawn to it.

Case Study 3

The following account is written by a participant whom I will call Robert, who is a 59 year old male who contacted me about nine months ago due to having several integration issues. When Robert contacted me he was in great distress, and was experiencing extensive electromagnetic anomalies, in addition to a range of psi experiences that were increasing to a point where they were starting to occur several times a week. Below is Robert’s story in his own words.

It was a rainy day on April 18th 1985. I was the "Musical Director" and performing at the Sahara Hotel in Vegas with a very famous artist at the time. I had a day off that day and decided to go to a friend of mine's party. I was there with my girlfriend (who later became my wife) and partying pretty hard as usual. I was 32 years old. I felt a bit strange that day, but couldn't quite put a finger on anything in specific. The house had filled up with quite a few people, so I decided to go outside to get some air. I all of a sudden became really scared because something wasn't right inside. I began freaking out and suddenly dropped to the ground.

From this point of the story, I was told the rest later by my girlfriend. She said she came outside looking for me and saw me running down the street in a panic. She ran back in the house and grabbed a guy (whose father he later told her was a doctor) and they came running down the street after me. I remember hearing voices screaming behind me to stop, but by this time I was going into cardiac arrest, and didn't realize it, simply because there wasn't any pain associated to it. That was the last thing I remember. Then I suddenly awakened and found myself outside of my body and

hovering above what looked like a cult-de-sac street, and paramedics circled around somebody lying on a gurney in the torrential rain. I could see my girlfriend running around in circles with her head back and screaming, but I couldn't hear a word of anything. It was a quiet I'd never experienced before. Almost a vacuum type of quiet. One of the paramedics seemed to be trying to revive somebody with a defibrillator (paddles). It was at that moment I noticed it was me. I didn't respond in a shocked sort-of-way. It was peaceful and calm. There was a serenity I'd never experienced. It was emotionless, but yet complete. I then noticed I had foam coming from my mouth, which made me laugh, because I'd never seen anything like it. It looked like I'd eaten a bar of soap. I wasn't moving as I saw my body jump up and down in reaction to the paddles. I hovered in closer and it was at that moment a thin tunnel of light came between the incident and myself. It quickly became bigger and brighter, which was now causing the images to slowly disappear. The paramedics were now picking me up and putting my lifeless body in the truck. My girlfriend was hysterical. I now wondered if I had died, but oddly didn't seem to care, despite the scene on the ground.

The light now became so intense, it was more blinding than the sun, but yet you could look straight into it without squinting. It felt healing, calming, and complete. There was no concept of time during this, nor any sounds yet, I didn't feel any harm, or scared, like I said there were no emotions present. I then felt like a magnet was pulling me towards it, almost-as-if something was drawing me into it against my will. It was the greatest peace I'd ever experienced in my life. It was now all around me, sort of like a vortex. As it closed in, suddenly I heard the most deafening noise break through the vacuum of silence. It startled the heck out of me. I was suddenly jerked back into my body almost with the force of a suction. My eyes sprung open in reaction, and I was surrounded by doctors, nurses, my girlfriend (screaming at the top of her lungs) "Thank God He's alive!" The doctor was shouting, "We have a code blue!" I thought it was an elaborate hoax set up from the guy who owned the house. I actually thought I was in his garage participating in some elaborate hoax. I then blacked out again at that moment. When I came to the next day after the operation, I thought I was still asleep. I believe they had lost me several times on the table, due to total renal failure, and all of my other vital organs had gone into shock because of it, I was later told. They were having a hard time trying to keep my heart going. I was still not out-of-the-woods from the trauma.

I finally was stabilized, and my girlfriend was told to contact my family because it would take a miracle if they could keep me alive through the weekend. They removed most of my colon, and put an Ileostomy on my hip for the ascending colon to be attached to. I started having these strange visions of me hovering over my bed and leaving my body and then being jerked back into it. I was not coherent enough yet to explain to anybody what was going on. I didn't half the time even think anybody was there. I wanted to go back to where I was the night of the incident.

I didn't want to live anymore, but I didn't want to die either. I just wanted to go back to that great place where everything was special and never come back. I don't believe I referred to it as death (like we know it).

A month passed, and I was still in the intensive care unit. I was receiving dialysis routinely because my kidneys were still both totally non-functional. They were at this time considering a donor. Miraculously, one morning the doctor looked at my chart and said they had totally returned out of nowhere, both of them at the same time. I was now named around the hospital as "The Miracle Man." There would be nights I'd awaken to people kneeling at the end of my bed and praying to God. They would look over at me when they noticed I was awake, and beg for me to pray to God for him to keep their loved-one alive (who was on the same floor as me), saying they heard I had a special bond with him because he brought me back-to-life. I was stunned by this! I even became very depressed. I felt I didn't deserve to come back.

After a few months, I was finally released and headed home. It was after about a month or so I began to notice anytime a group of people came around me, I felt this overwhelming sense of emotions, to the point it brought on high-anxiety. I pretty much disregarded it as maybe I hadn't

gotten over the traumatic experience I'd gone through. A few years past and after the Ileum revision and check-ups from the doctors, I was told that I was pretty much at 100%, considering what I'd gone through.

A couple years passed, and one day I noticed that I was starting to have these strange electromagnetic reactions around electronics, and the mood swings were getting pretty bad whenever I'd be in a crowd of people. I was starting to feel a swarm of emotions all at the same time. Happy, sad, tearful, and sometimes wanting to die. I would put an object down in a room and come back, and it would not be there!? I figured there was a logical explanation for this (whichever one, I didn't really ponder it). It was now 1991. I was married, and couldn't figure out why I couldn't get along with my wife anymore. Here was the lady who was my girlfriend at the time of the incident, and we were "soulmates," but now I couldn't function in a marriage anymore.

My best friend died the next year, and that's when I noticed things were starting to get real strange. I had acquired some of his belongings from his mother one day. It was an electronic piece of musical gear. I went to bed that night and noticed something that looked like a shadow dart by in the hall. I didn't pay very much attention to it, because I figured it was probably maybe light-fractions coming through the blinds. The next morn I went to the recording studio (with my then partner). The female artist we were working with was singing in the booth. When she finished we noticed her vocals somehow were erased off the machine, and it went into full-on record by itself without the engineer assisting it. He called for the tech to come in. He showed it to him and he said it was physically impossible for that to happen, and in all of his years as a tech--that was a first! He then brought in another machine, and the same exact thing happened. I still to this day can round up most of those people who were there to corroborate the story. Once again, I didn't feel it was related to me, but I now wondered if my friend who had passed had anything to do with it?

That next week I was sitting in the same studio with my partner when suddenly I fell on the floor in excruciating pain unlike anything I'd known before. It felt as-if my arm was crushed. The pain came from out of nowhere. Years passed and it developed into a serious joint disorder (specialists at Cedar Sinai in Los Angeles are baffled to this day). Chronic swelling of the feet, hands, digits, and legs. The doctors said they'd never seen anything like this. It wasn't Rheumatoid, Lupus, Fibromyalgia, Gout etc. These are cyst-like balls of fluid that randomly collect in my joints that are very incapacitating to the point I sometimes can't walk or even brush my teeth.

This has been going on now for a long time. I began to feel myself changing. I had this now voracious appetite for information. Any kind of information. Trivia, quantum physics, history, Jeopardy, anything having to do with facts. Prior to this, I wasn't remotely interested with any of those subjects. My vocabulary increased without studying. I'm a guy with barely a high school education. If you talk to my friends, most of whom I've meet maybe in the past few years, they all think I've gone to college (many laughs). I think it's amazing. Prior to the incident, I considered myself at best, an average songwriter. I was now writing songs on a world class level. I literally became an interior decorator overnight without any prior experience, which I find hysterical because prior to the incident I couldn't put two chairs together in a room.

I was now starting to feel the presence of people in a room when there'd be nobody there but myself. I have many friends and family that were present when these anomalous events occurred. TV changing channels by itself, light bulbs burning out, my razor will have a 100% charge, then be totally drained the next second, then back to a full charge. Clocks losing time constantly, batteries dying, computers freaking out, my car going from totally normal to a full electronic meltdown and not starting, and having to be towed. I'll be listening to music on my i-phone, and suddenly the volume will go from silent to full on. If I look at the slider bar during this time, and noticing the slide bar on the screen drastically jumping across from off to full on.

I went into a friend's recording studio last week. The moment I walked in, the entire studio went crazy. The computers started glitching, the singer's voice that was recording started cutting in

and out in a way that prompted the engineer to ask me what the hell was happening. He said he'd worked in that studio 20 years and that problem had never happened once. I was hesitant to tell him that maybe I thought it could be because I'd had an NDE. He stared at me in shock. If it wasn't for the fact that he was witnessing this anomalous occurrence right before his eyes, he probably would have thought I was crazy. It got so bad we had to abort the session. The singer came out of the booth and said "WHAT THE HELL IS GOING ON?" I then went around the corner to get a coffee from Starbucks. When I returned, the engineer leaned over and whispered in my ear: "It stopped the very second you walked out of the room," he said. Everyone present that day will verify this if you need. He called me later and said everyday since that day, it was like it never happened.

In conclusion, these three case studies highlight many of the post-integration issues NDErs struggle with, specifically in reference to EMEs that they did not experience prior to their NDE.

Discussion

One of the first things that emerged from the results of the pilot study with 10 NDErs and that are also being found in the main study with 136 NDE respondents, were the differences between NDErs who reported EMEs and those who did not. Namely, NDErs who reported EMEs also reported higher rates of allergies, chemical sensitivities, geomagnetic sensitivity, and psi experiences, compared to NDErs who did not report EMEs. This finding from the pilot study resulted in an emerging profile of those with EMEs.

Likewise, it is most likely that this may be reported more by women, and other predominant characteristics might also be present as well. For example, a wide range of problems with various technologies and electrical appliances, complaints of high amounts of static electricity, to a point where electrical shocks are substantially reported more by EMERs, compared to those who do not experience EMEs. Additionally, EMERs may commonly complain of feeling ill, dizzy, or nauseous in the presence of electricity and/or high electromagnetic fields. Many may report increased food allergies and an inability to tolerate anything that has chemicals in it, or that is not organic. Many may report the ability to see, feel, and/or sense the presence of electromagnetic fields and/or electricity, and may report hearing a hum, buzz, or other type of sound, when in the presence of these energy/electric fields.

In both the pilot study and main study, findings that around 70% of the participants reported EMEs are consistent with findings from other studies (e.g., Atwater, 2007; Nouri, 2008; Ring, 1992), reaffirming how widespread this occurrence may be.

As for the predominant themes found, the four main categories that emerged from the pilot study (e.g., watches/clocks/batteries, lights, computers, and cell phones), and a fifth category that included several other types of technologies, is also consistent with Nouri's (2008) findings, as well as Atwater's (2003, 2007) findings. Participants also reported various stress-related and/or post-NDE integration issues, which ranged from not being believed by others to the cost of constantly having to replace and/or repair things. These types of stress and integration issues are congruent with past findings among NDErs and support that this population may be prone to high rates of depression and anxiety due to some of these aftereffects (Christian, 2006; Holden, 2009; Wren-Lewis, 2004).

Differences between NDErs who reported EMEs compared to those who did not provide the basis for some interesting intriguing speculation. When separating EMERs and non-EMERs into two groups in the pilot study, it is noteworthy that 84% of the EMERs reported allergies and chemical sensitivities, while 70% reported geomagnetic sensitivity and psi experiences, but only 34% of the non-EMERs reported allergies and chemical sensitivities, and none reported geomagnetic sensitivity and psi experiences. To our knowledge, there are no other studies published noting this possible difference between these two types of NDErs, although the small sample size in the pilot study makes any conclusions premature, pending the formal data analysis of our larger study with 136 NDErs.

Clinical Implications & Directions for Future Research

In addition to these implications for future research, there are many implications for clinical practice with NDErs, especially those who suffer from EMEs. Both mental and physical health practitioners could potentially better serve this vulnerable population by having knowledge about NDEs, as well as EMEs, in addition to how they may frequently co-occur. It is common for those who suffer from EMEs, to both feel “crazy” and to be discounted by healthcare providers for reporting these types of experiences. This may be particularly difficult when NDErs try to express this experience to others, as it might exacerbate the level of disbelief with which they are often met, which consequently could lead to even higher rates of depression and anxiety (Christian, 2006; Holden, 2009; Wren-Lewis, 2004). To address this, one approach is to assess training needs and design training programs, efforts with which we have been involved (Fracasso, Friedman, & Young, 2010; Fracasso & Friedman, 2011).

The results of this pilot study and the preliminary results of the main study, and the few other ones like it that have explored EMEs, suggest the need to further research NDEs and their associated phenomena, such as EMEs. Future studies could examine in depth NDErs who report EMEs versus NDErs who do not to compare if any of the predominant characteristics of the aftereffects and the key features often experienced during NDEs differ between these two groups of NDErs. Future research could also compare NDErs who reported seeing and communicating with a “being of light,” versus those who did not, to examine if there are any differences in the aftereffects, because light is an electromagnetic phenomenon that particularly might interrelate with EMEs. Ring (1992) posed this question when he also found high rates of those reporting EMEs, but little follow-up has occurred.

Another similarly undeveloped area of research is on those with epilepsy who experience seizures. There is a large body of research dating back for decades that has noted the mystical-like experiences reported by those who have seizures disorders, as well as have psi experiences (Hurst & Neppe, 1981; Krippner, 1996; Neppe, 1983; Neppe & Tucker, 1992; Palmer & Neppe, 2003; Persinger, 1983, 1985, 1989). Valuable knowledge could be gleaned by comparing NDErs and those with epilepsy to examine if any of the predominant aftereffects are similar or dissimilar. As of this date, research is still inconclusive, with some studies indicating that mystical-like experiences reported by those with seizure disorders appears to be similar to NDEs, while other researchers point out they do not appear to be very similar (Greyson, 2010). Moreover, it would be interesting to see if those who experience seizure disorders, which are caused by electrical disturbances in the brain, also report more or different EMEs.

Another area that could add valuable knowledge to the field would be to examine archival medical records documenting information before and after NDEs to look at EMEs. Specifically, it would be interesting to examine whether there are physiological and neurological differences in NDErs who report EMEs before and after their NDE, such as prior lab work, MRIs, CTs, and any other number of measures that could be harvested from extant medical records.

The prospects for future research in this area are exciting and challenging. Perhaps the most challenging is that this area addresses the biggest questions with which humans have long struggled, such as the possibility of disembodied consciousness and all of its provocative implications (Fracasso & Friedman, 2011). Studying EMEs in NDEs could resolve some of these questions, as it appears to be a widespread anomalous phenomenon that is amenable to various research strategies.

One final word of caution must be noted to future researchers, namely that many who struggle with EMEs may not be able to participate in standard studies, such as those that involve using the internet or the phone, due to their inability to tolerate electromagnetic fields. Furthermore, if attempts are made to interview in person, they may also not be able to come to an office that is illuminated with bright, fluorescent lights, or that is polluted with various types of chemicals, such as cleaning supplies and/or fragrances. Also, recruiting may be a problem in general since a large number may tend to live in remote areas.

Conclusion

In conclusion, there is still considerable research that needs to be done in order to better understand EMEs in NDErs. While causal pathways remain unknown and there is presently no cure for this, many EMErs may be experiencing confusion about this phenomenon and may fear being ridiculed. As a result, many may not be receiving the proper type of care, or worse, may be discriminated against in the healthcare system. Moreover, just because mainstream materialistic science does not have an answer for this phenomenon (and, in fact, it actually defies science as we now know it), it does not mean that it is not a real experience. In fact, the data that have accumulated on NDErs reporting EMEs are now substantial and, as of this date, practitioners' knowledge about this phenomenon seems like the strongest immediate approach to better serve this population, along with the much needed research, which might help bring this important condition into the light of accepted scientific knowledge.

References

- American Psychiatric Association (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author.
- Atwater, P. M. H. (2007). *The big book of near-death experiences: The ultimate guide to what happens when we die*. Charlottesville, VA: Hampton Roads Publishing Company, Inc.
- Atwater, P. M. H. (2003). Our tiniest near-death experiencers: Startling evidence suggestive of a brain shift. *The Journal of Religion and Psychical Research*, 10, 86-97.
- Bonenfant, R. J. (2004). A comparative study of near-death experience and non-near-death experience outcomes in 56 survivors of clinical death. *Journal of Near-Death Studies*, 22(3), 155-178.
- Bonenfant, R. J. (2005, September). Electromagnetic sensitivity: A physician's experience following a childhood NDE. Paper presented at a conference of the International Association for Near Death Studies, Virginia Beach, VA.
- Carter, C. (2010). *Science and the near-death experience: How consciousness survives death*. Rochester, VA: Inner Traditions.
- Christian, S. R. (2006). Marital satisfaction and stability following a near-death experience of one of the marital partners. *Dissertation Abstracts International, Section A: Humanities and Social Sciences*, 66(11-A), 3925.
- Clark-Sharp, K. (1995). *After the light*. New York, NY: Harper Collins Publisher.
- Fenwick, P. (2010). Non local effects in the process of dying: Can quantum mechanics help? *Neuroquantology*, 8(2), 155-163.
- Fracasso, C. L. (2012). Near-death experiences and electromagnetic aftereffects: An exploratory study. Ph.D. dissertation, Saybrook University, United States -- California. *Dissertation International Abstracts*.

UMI No. 3509447. Retrieved June 19, 2012, from ProQuest Dissertations & Theses Database: Full Text. (Publication No. AAT 3509447).

Fracasso, C. L., Friedman, H. L., & Young, M. S. (2010). Psychologists' knowledge and attitudes towards near-death experiences: Change over time and relation to transpersonal self-concept. *Journal of Near-Death Studies*, 29(1), 273-281.

Fracasso, C., & Friedman, H. (2011). Near-death experiences and the possibility of disembodied consciousness: Challenges to prevailing neurobiological and psychosocial theories. *NeuroQuantology*, 9(1), 41-53.

Fracasso, C., & Friedman, H. (2011). Energy psychology: Progression or retrogression in understanding and treating psychological disorders? *Health Forum Online*. n.p. (Published at http://www.healthforumonline.com/Our-Courses/Courses/47/search_children/productId_98/categoryId_47/)

Greyson, B. (1983). The Near-Death Experience Scale: Construction, reliability, and validity. *Journal of Nervous and Mental Disorders*, 171, 369-375.

Greyson, B. (1986). Incidence of near-death experiences following attempted suicide. *Suicide and Life-Threatening Behavior*, 16(1), 40-45.

Greyson, B. (1997). The near-death experience as a focus of clinical attention. *The Journal of Nervous and Mental Disease*, 185, 327-334.

Greyson, B. (2001). Posttraumatic stress symptoms following near-death experiences. *American Journal of Orthopsychiatry*, 71, 368-373.

Greyson, B. (2003). Incidence and correlates of near-death experiences in a cardiac care unit. *General Hospital Psychiatry*, 25, 269-276.

Greyson, B. (2007). Consistency of near-death experience accounts over two decades: Are reports embellished over time? *Resuscitation*, 73, 407-411.

Greyson, B. (2010). Implications of near-death experiences for postmaterialist psychology. *Psychology of Religion and Spirituality*, 2(1), 37-45.

Greyson, B., & Liester, M. B. (2011). *Electromagnetic phenomena questionnaire*. Unpublished.

Haas, A. S. (2010). *The interconnectedness of reality*. Waltham, MA: Psychobiophysics Research Organization.

Holden, J. M. (2009). Veridical perception in near-death experiences. In J. M. Holden, B. Greyson, & D. James (Eds.), *The handbook of near-death experiences: Thirty years of investigation* (pp. 185-211). Santa Barbara, CA: Praeger/ABC-CLIO.

Hurst, L. A., & Neppe, V. M. (1981). A familial study of subjective paranormal experience in temporal lobe dysfunction. *Parapsychological Journal of South Africa*, 2(2), 56-64.

- Knittweis, J. (1997). Electrical sensitivity of near-death experiencers. *Journal of Near-Death Studies*, 15(3), 223-225.
- Krippner, S. (1996). Parapsychological studies and the human brain. In *Behind and beyond the brain: Proceedings of the first symposium of the Bial Foundation* (pp. 126-144). Porto: Bial Foundation.
- Laws, V., & Perry, E. (2010). Near-death experiences: A new algorithmic approach to verifying consciousness outside the brain. *Neuroquantology*, 8(2), 142-154.
- Moody, R. A. (1975). *Life after life*. Covington, GA: Bantam Books.
- Neppe, V. M. (1983). Temporal lobe symptomatology in subjective paranormal experiences. *Journal of the American Society for Psychical Research*, 77, 1-30.
- Neppe, V. M., & Tucker, G. J. (1992). Neuropsychiatric aspects of seizure disorders. In S. C. Yodofsky & R. E. Hales (Eds.), *Textbook of neuropsychiatry* (pp. 397-426). Washington, DC: American Psychiatric Press.
- Nouri, F. M. (2008). Electromagnetic after-effects of near-death experiences. *Dissertation International Abstracts*, UMI No. 3352121. Retrieved December 1, 2010, from Proquest Dissertations and Thesis Database.
- Palmer, J., & Neppe, V. M. (2003). A controlled analysis of subjective paranormal experiences in temporal lobe dysfunction in a neuropsychiatric population. *Journal of Parapsychology*, 67(1), 75-98.
- Parnia, S., Spearpoint, K., & Fenwick, P. B. (2007). Near-death experiences, cognitive function, and psychological outcomes of surviving cardiac arrest. *Resuscitation*, 74, 215-221.
- Parnia, S., Waller, D. G., Yeates, R., & Fenwick, P. (2001). A qualitative and quantitative study on the incidence, features, and etiology of near-death experiences. *Resuscitation*, 48, 149-156.
- Persinger, M. A. (1983). Religious and mystical experiences as artifacts of temporal lobe function: A general hypothesis. *Perceptual and Motor Skills*, 57(3), 1255-1262.
- Persinger, M. A. (1985). Temporal lobe signs and reports of subjective paranormal experiences in a normal population: A replication. *Perceptual and Motor Skills*, 60(3), 903-909.
- Persinger, M. A. (1989). Psi phenomena and temporal lobe activity: The geomagnetic factor. In L. A. Henkel & R. E. Berger (Eds.), *Research in parapsychology* (pp. 121-156). Metuchen, NJ: Scarecrow Press.
- Ring, K. (1980). *Life at death*. New York, NY: Quill.
- Ring, K. (1992). *The omega project. Near-death experiences, UFO encounters, and mind at large*. New York, NY: William Morrow and Company, Inc.
- Ring, K. (2006). *Lessons from the light*. Needham, MA: Moment Point Press.

van Lommel, P. (2006). Near-death experience, consciousness, and the brain: A new concept about the continuity of our consciousness based on recent scientific research on near-death experience in survivors of cardiac arrest. *The Journal of General Evolution*, 62, 134-151.

van Lommel, P., van Wees, R., Meyers, V., & Elfferich, I. (2001). Near-death experience in survivors of cardiac arrest: A prospective study in the Netherlands. *The Lancet*, 358, 2039-2045.

Wren-Lewis, J. (2004). The implications of near-death experiences for understanding posttraumatic growth. *Psychological Inquiry*, 15, 90-92.

Cheryl Fracasso, Ph.D. is currently pursuing licensure as a mental health counselor at Antioch University Seattle. She holds a Ph.D. in psychology from Saybrook University, a master's degree from Walden University, and a bachelor's degree from the University of Washington. She serves as Faculty at University of Phoenix, past Research Assistant at Saybrook for Stanley Krippner, and is an Editorial/Advisory Board Member for the *NeuroQuantology* journal, and Associate Managing Editor for the *International Journal of Transpersonal Studies*. She is currently conducting an international study on near-death experiences (NDEs) with co-researchers Kenneth Ring, Harris Friedman, and M. Scott Young on electromagnetic and physiological aftereffects of these experiences. She has published several peer-reviewed articles on NDEs, and is in the planning phase of launching another study that might potentially include doing lab measures on NDE aftereffects. Current projects include serving as co-editor for Stanley Krippner's *Advances in Parapsychological Research*, Volumes 9 and 10 which are projected to be published in 2013 and 2014. Her interests are in the fields of near-death experiences, spiritually transformative experiences, energy medicine; humanistic, existential, and transpersonal psychology, as well as electromagnetic hypersensitivity.

E-mail: cherylfracasso@hotmail.com

Harris Friedman, Ph.D. supervises research at Walden University, including Dr. Fracasso's master's thesis. He recently retired as Research Professor of Psychology at University of Florida and Professor Emeritus at Saybrook University, where he supervised Dr. Fracasso's doctoral dissertation. He is a consulting and clinical psychologist, as well as academic. He received his doctorate from Georgia State University in clinical psychology. He has over 200 professional publications, mainly in the area of transpersonal psychology and organizational change. He is a Fellow of the American Psychological Association, and serves as Senior Editor of the *International Journal of Transpersonal Studies* (transpersonalstudies.com) and Associate Editor of *The Humanistic Psychologist*. His most recent books, both co-edited with Stanley Krippner in 2010 are *Mysterious Minds* and *Debating Psychic Experiences*. He is now co-editing several forthcoming volumes, including *The Wiley-Blackwell Handbook of Transpersonal Psychology*, *The Praeger Handbook of Social Justice and Psychology (Volumes 1 & 2)*, and *Advances in Parapsychological Research (Volumes 9 and 10)*.

E-mail: harrisfriedman@floraglaces.org