THE AFTEREFFECTS OF NEAR-DEATH EXPERIENCE

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by
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To My Mother and Father
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CHAPTER 1
INTRODUCTION

Near-death experience is defined as a profound transcendent event encountered at the threshold of dying. Intense emotional responses have been found to occur following this experience. Moody's (1975) initial study of near-death experience (NDE), the result of more than eleven years of research, was a best-seller, translated into over 20 languages. Researchers have documented over four thousand cases of NDE and have estimated an incidence rate of 40 percent for all who actually come close to dying from any cause (Ring, 1980; Sabom, 1982). Regardless of the precipitating condition, researchers agree that the after-effects of NDE on the lives of individuals are uniquely noteworthy (Ring, 1980, 1984; Sabom, 1982; Greyson, 1983; Grof & Halifax, 1977; Grosso, 1981; Lundhal, 1982; Noyes, 1979). NDE often produces such profound effects that those reporting it indicate that the passage of time did nothing to diminish its vividness. Moreover, many individuals report NDE to be the most important experience of their entire lives. NDE appears to motivate individuals to reevaluate former beliefs and values, prompting changes in
such areas as selection of friends, careers and recreational interests (Ring, 1980).

Most NDE occurs in the hospital setting, causing an immediate emotional response in the individual experiencing this event. Accordingly, an opportunity exists for nurses to intervene in these situations with support and understanding for these individuals. Nursing literature on NDE, however, is scarce and no studies have been reported which focus on the importance and impact of the transformative aspect of NDE. The purpose of this study is to make nurses more aware of NDE and to demonstrate that this experience may alter an individual's beliefs and values producing perceived changes in self which may lead to alterations in lifestyle.

**Problem Statement**

What are the aftereffects of near-death experience?

**Research Questions**

1. Do individuals reporting near-death experience perceive a greater appreciation of life?
2. Do individuals reporting near-death experience perceive a greater appreciation of the beauty of nature?
3. Do individuals reporting near-death experience perceive less fear of death?

4. Do individuals reporting near-death experience perceive less value of material things?

5. Do individuals reporting near-death experience perceive an increased belief in life-after-death?

6. Is there a relationship between the Weighted Core Experience Index (WCEI) (Ring, 1980) and the Aftereffects Scale?

7. Do individuals with no prior knowledge of near-death experience have a deeper experience than individuals with prior knowledge of this experience?

Operational Definitions

Near-Death Experience – An individual's experience of coming close to death for any reason and subsequently experiencing any or all of the phenomena delineated in the Weighted Core Experience Index (WCEI) (Ring, 1980).

Aftereffects – The effects experienced by an individual and perceived to be the consequences of near-death experience. These effects are manifested as changes in specific areas of the individual's life and are
measured by the subject's responses to the interview and to the Aftereffects Scale.

**Experiencer** - Individuals reporting a near-death experience.

**Significance of the Study**

Based on the unusual nature of NDE many individuals are reluctant to discuss this potentially life changing event with anyone, including members of the nursing and medical professions. A literature review indicates that nursing's awareness of this experience is limited. Only two authors mention NDE in nursing literature (Oakes, 1981; Sommers, 1985). Theoretical nursing concepts of holism and energy fields, while being somewhat similar to NDE phenomena and concerned with the spiritual or unseen dimension of man, have not specifically addressed this issue.

Nursing literature on death and dying has focused on nurses' responsibility to death and terminal illness, patients' and families' adaptations to death and dying, and environmental and social processes affecting adaptation to death, terminal illness and bereavement. No studies in this body of literature have been produced concerning NDE or its potentially transforming aspects (Benoliel, 1983).
Critical care nursing literature, however, included two studies on NDE, both focusing on this event occurring as a result of cardio pulmonary resuscitation. Oakes (1981) provided an overview of NDE and preliminary results of a survey of 30 critical care nurses and their responses to individual anecdotal accounts of NDE. While the majority were interested in learning more about NDE, very few were aware of the potentially transforming impact of this event on the lives of experiencers. Sommers' (1985) study focused on providing a therapeutic environment during cardio pulmonary resuscitation and referred to the possibility of an out-of-body experience occurring if the patient had NDE during resuscitation. Neither study, however, focused on the impact of NDE in relation to its aftereffects or the changes it produced in the lives of experiencers.

With so little nursing literature available on NDE, nurses are likely to be uninformed on their role in caring for individuals having this experience. Based on nursing's lack of awareness of NDE and the experiencer's reluctance to initiate discussion, many individuals have remained silent, struggling privately with assimilating NDE into their everyday lives. Experiencers have agreed that support and reassurance following NDE would have been extremely helpful. This study's significance is based on a
genuine need for nursing to know more about NDE and some of the transformations that occur in individuals as a result of this experience.
CHAPTER II

LITERATURE REVIEW

Chapter II presents an historical perspective of NDE, a description of its characteristics and the possible explanations for this phenomenon. It will also include a conceptual framework based on holographic theory.

An Historical Perspective

The Tibetan Book of the Dead, compiled from the teachings of sages in prehistoric Tibet and finally recorded in the eight century A.D., was perhaps the oldest recorded knowledge of NDE (Fremantle & Trungpa, 1975). This book was read to dying individuals and portrayed death as a skill that could be facilitated by the knowledge of the soul's journey after leaving the body. The comparison of this ancient book to what we now call NDE was remarkable (Moody, 1975; Ring, 1980).

Lundahl (1979) reported that Mormons gave accounts of NDE from the day the church was established in 1830. A high percentage of these reports described entering into another sphere or world. The first serious exploration of NDE studied the survivors of falls in the Alps (Heim, 1892). This research revealed that 95 percent of those survivors reported subjective experiences amazingly
consistent to one another and to present-day NDE (Lundahl, 1982). In addition numerous personal accounts of near-death, written by people such as Ernest Hemingway (Spraggett, 1974), Admiral Richard Byrd (Byrd, 1938), and Carl Jung (Jung, 1961), revealed the characteristic pattern of NDE.

The research pioneers of NDE were affiliated with the fields of psychic research and parapsychology. Their initial inquiry into NDE focused on visions of dying patients as reported by physicians and nurses. These death-bed visions shared many of the subjective aspects of NDE (Myers, 1903; Hyslop, 1908; Barret, 1926). Two well respected parapsychologists, Osis and Haraldsson (1977) systematically studied NDE in the United States and India for over 20 years. Data provided by physicians, nurses, and survivors in both countries showed impressive cross-cultural similarities in the component parts of NDE (Ring, 1980; Sabom, 1982). Ring (1980) indicated, however, that despite the detailed, statistical manner of the study there were shortcomings in its representative sampling.

The medical profession first approached the subject of NDE through the studies of Kubler-Ross (1975, 1976) and Moody (1975). Their findings have been criticized for their largely anecdotal format and absence of any statistical verification. Nevertheless Moody's (1975) following classic, composite portrayal of NDE served to
stimulate wide interest in the public as well as
professional communities:

A man is dying and, as he reaches the point of
greatest physical distress, he hears himself
pronounced dead by his doctor. He begins to hear
an uncomfortable noise, a loud ringing or buzzing,
and at the same time feels himself moving very
rapidly through a long dark tunnel. After this,
he suddenly finds himself outside of his own
physical body, but still in the immediate physical
environment, and he sees his own body from a
distance, as though he is a spectator. He watches
the resuscitation attempt from this unusual
vantage point and is in a state of emotional
upheaval.

After a while, he collects himself and becomes
more accustomed to his odd condition. He notices
that he still has a "body," but one of a very
different nature and with very different powers
from the physical body he has left behind. Soon
other things begin to happen. Others come to meet
and to help him. He glimpses the spirits of
relatives and friends who have already died, and a
loving, warm spirit of a kind he has never
encountered before—a being of light—appears
before him. This being asks him a question,
nonverbally, to make him evaluate his life and
helps him along by showing him a panoramic,
instantaneous playback of the major events of his
life. As some point he finds himself approaching
some sort of barrier or border, apparently
representing the limit between earthly life and
the next life. Yet, he finds that he must go back
to the earth, that the time for his death has not
yet come. At this point he resists, for by now he
is taken up with his experiences in the afterlife
and does not want to return. He is overwhelmed by
intense feelings of joy, love, and peace. Despite
his attitude, though, he somehow reunites with his
physical body and lives.

Later he tries to tell others, but he has trouble
doing so. In the first place, he can find no
human words adequate to described these unearthly
episodes. He also finds that others scoff, so he
stops telling other people. Still, the experience
affects his life profoundly, especially his views
about death and its relationship to life. (p. 23-24)
Ring (1980) and Sabom (1982) have provided the most comprehensive studies to date on NDE. Ring (1980), a psychologist, interviewed over one hundred men and women who had come close to death due to causative factors of illnesses, attempted suicide, and accidents. His research questions concerned the frequency of occurrences, the relationship between the near-death experience and the religiosity of the experiencer. He also looked at the possible influence of various factors on NDE and the aftereffects or subsequent life changes that resulted from this event. He reported an incidence rate for NDE of 40 percent for all who actually came close to dying from any cause. Additional findings revealed no difference in content or frequency of NDE based on any demographic variables. His original study (Ring, 1980) found evidence supporting profound and personal changes in subjects following NDE. A later study (Ring, 1984) further explored these aftereffects, supporting his previous findings and focusing on the meaning and implications of these changes.

Sabom (1982), a physician, also interviewed over one hundred men and women, mostly cardiac patients, who had come close to death. He focused on the out-of-body component of NDE and asked questions concerning the reality and pattern of these events. His study provided independent corroborative evidence for the visual and auditory perceptions that NDE survivors describe as having occurred while they were allegedly out of their bodies.
Employing a historical perspective, Lundhal (1982) proposed a new research territory evidenced by the findings of the previous two investigators. Currently more physicians and psychologists are engaged in research about NDE. In addition the International Association for Near-Death Studies (IANDS) was established in 1980 at the University of Connecticut for the exchange of research and ideas concerning NDE. IANDS membership includes thousands of professionals and laypersons from every state and from many countries throughout the world. They publish a quarterly newsletter (*Vital Signs*) as well as a semiannual journal, (*Anabiosis*).

**Nursing Literature Review**

Nursing literature will be examined from a theoretical and research perspective, aimed at areas where nursing is most likely to encounter NDE-related phenomena and individuals having this experience. This survey will review the related theoretical concepts of holistic health and Roger's (1970, 1983) innovative concepts of energy fields. In addition, nursing research considered pertinent to NDE, such as, death and dying, critical care nursing, and gerontology will be investigated.

Nursing philosophy almost universally includes a belief about holistic man. This proposes that man must be assessed simultaneously at a multitude of levels. According to Krieger (1981), a key factor to the principle
underlying holistic health is that each person is responsible for his own physical, emotional, spiritual, and interactive condition. While nursing literature advocates a holistic approach to nursing care and holistic health theory readily recognizes death as intrinsic to the continuum of life, NDE, a spiritual aspect of the holistic health concept, has not yet been explored by nursing from this perspective. Although holism is widely present in nursing theory, Krieger (1981) asserts that nurses have been reluctant to acknowledge holism as a conceptual basis for its growing body of knowledge. The spiritual dimension of holistic health, however, does provide a connecting point for inquiry into NDE, but this association has not yet appeared in nursing literature.

The other theoretical nursing area examined for its relationship to NDE concerns the innovative concepts of Rogers (1970, 1983). She proposed the fundamental unit of living systems to be an unseen reality identified as energy fields. Similar to NDE, energy fields had a "non apparent fourth dimension." Rogers identified both men and environment as energy fields engaged in continuous simultaneous, mutual interaction. While Roger's abstract concepts may serve as reference points for increasing theoretical understanding of the relationship between the environment of NDE and its aftereffects, they have not been utilized in nursing literature in this manner.
The first nursing research area to be examined concerned the literature on death and dying. This area has been explored with increasing frequency over the last 20 years. Death and dying research has been mostly factual rather than conceptual and appeared in three categories: a) reactions and responses of nurses to death and terminal illness; b) adaptations of patients and families to death and dying and c) environmental and social processes affecting adaptation to death, terminal illness and bereavement (Benoliel, 1983). While the emotional aspect of death and dying has been emphasized, this body of nursing literature has made no reference to NDE and its emotional impact or aftereffects.

The second research area examined in this literature review was critical care nursing. This body of literature displayed a beginning exploration of NDE as it resulted from cardio pulmonary resuscitation. Oakes (1981) reviewed NDE and its characteristics focusing on the out-of-body component. She reported preliminary results from a poll of 30 critical care nurses who were asked for their reactions to anecdotal cases of NDE. While the largest group of survey returns indicated "intense interest" in learning more about near-death phenomena some respondents expressed complete disbelief and skepticism. Only six of this group considered an individual's NDE to be an influencing factor on their nursing care or long-range support. Sommers
(1985) also focused on the out-of-body experience of NDE and therefore made suggestions for appropriate therapeutic conduct of the health care team during cardio pulmonary resuscitation. Neither author focused on the transcendent effects of NDE or the profound changes that individuals experience as a result of NDE.

The third and final research area to be explored involved the literature on gerontological nursing. This body of literature has increased markedly in the last decade. Research in this field has evolved from an emphasis on the degenerative aspects of growing old to a more positive view of aging. Current areas of nursing concern center on improving the public's attitude toward the elderly by encouraging nurses to be change agents and advocates for older persons (Banknecht, 1982; Rubin, 1984). In addition there has been a recent emphasis on the spiritual dimension of the aging process which is defined as a striving toward harmony in one's relationship with self, God and others (Gress & Bahr, 1984). The spiritual holistic emphasis on aging, however, has not included any reference to the possibility of NDE as a spiritual phenomenon.

**Characteristics of Near-Death Experience**

While Moody's (1975) previous classic composite example of NDE introduced this experience to the public and
professional communities, recent studies have investigated the components of NDE in greater detail. Ring (1980) and Sabom (1982) analyzed the frequency of components, finding the earlier stages to be more common and the later ones systematically decreasing in frequency. The following seven components are presented to further describe these characteristics and their reported frequency of occurrence. The first component, peacefulness, is consistently and dramatically reported by the majority of individuals with NDE (Moody, 1975; Ring, 1980; Gross, 1981; Sabom, 1982; Noyes & Kletti, 1976). Over 95 percent of the emotions reported in Ring's (1980) study were extremely positive; none of the individuals characterized the event as a "journey into hell." Any unpleasant sensation such as sadness, loneliness or fear was perceived as a momentary impression in an otherwise extremely enjoyable experience (Sabom, 1982). The peaceful feeling was also accompanied by feelings of timelessness, an emphatic sense of realness and often the sense of being "dead" (Ring, 1980; Sabom, 1982).

The second component, a sense of separation from the physical body, was reported by all of Sabom's (1982) patients. This "separated self" remained the sole "conscious" identity and was perceived by 93 percent as an invisible non-material entity. Ring's (1980) study confirmed these findings to a lesser degree and described
the typical account as a looking down onto the physical body, feeling very natural in doing this, and possessing acute hearing and mental awareness. Many respondents were able to describe with great accuracy and detail what occurred during their resuscitation. According to Sabom (1982) explanations such as prior general knowledge, information passed on by another individual or perceptions of sight and sound during semiunconsciousness could not account for such knowledge.

Entering into darkness, a void or a tunnel was the third component of NDE. Moody’s (1975) study initially referred to this as a tunnel. Greyson and Stevenson (1980) reported the experience of a tunnel in 31 percent of their respondents. Instead of a tunnel a dark region was reported by 23 percent in both Ring’s (1980) and Sabom’s (1982) studies. Ring (1980) explained this phenomena as a transitional stage characterized by floating or drifting through complete blackness without dimension.

Fourth, was the perception of a brilliant golden light of ineffable beauty, in no way irritating to the eyes. The light signaled the end of the dark region (Ring, 1980; Sabom, 1982; Greyson & Stevenson, 1982). Ring (1980) reported that some individuals had a sense of entering the light. This was described as the origin of the light, a world of preternatural beauty with unforgettable colors (Ring, 1980).
Fifth, ten individuals in his study, upon entering the light, also reported encountering the presence of others, usually deceased relatives. Sabom (1982) reported that 24 percent of his sample perceived the nearness of others and communicated either verbally or non-verbally with them. For Moody's (1975), Ring's (1980) and Sabom's (1982) studies the encounter with other beings was associated with the decision to return to this existence. This decision was based, not on their own preference, but on their perception of being needed by loved ones.

The sixth component, the life review, was also associated with the decision to return and was described by Ring (1980) as images of significant past life events that appeared in a simultaneous matrix of impressions like a hologram.

Some of the respondents, at this stage, perceived the seventh and final component, a border or limit representing a point of no return from physical death (Moody, 1975; Ring, 1980; Sabom, 1982). Obviously they chose not to cross this border and instead "awoke" to their previous possible painful condition in a state of wonderment at what they just experienced and unaware of how they had returned (Moody, 1975; Ring, 1980; Sabom, 1982).

The desire to discuss this monumental event with others was expressed by the vast majority of experiencers; however, it was not easily or readily disclosed by many due
to its ineffability and the fear of ridicule (Ring, 1980). Several researchers reported that they were the first individuals to hear about a particular experience even though a great deal of time had passed since it had actually occurred (Moody, 1975; Ring, 1980; Greyson, 1983; Sabom, 1982). Nevertheless, the impact of this profound event exerted a powerful effect on an individual's motivations, values and conduct (Ring, 1980).

Aftereffects of Near-Death Experience

Aftereffects of NDE, the majority of which are positive, are recognized as the most significant and real aspects of the experience (Greyson, 1981; Greyson, 1983; Noyes & Kletti, 1976; Rosen, 1975; Noyes & Slymen, 1979; Grosso, 1981; Noyes, 1980; Sabom, 1982; Ring, 1980; Moody, 1975). Moreover, the number of positive changes in the individual's life was directly related to the perceived depth of the experience. Ring (1980) further postulated that a heightened sense of "spiritual awareness" was evidenced by those who had a WCEI of greater than six.

One of the most frequently reported aftereffects was a greater appreciation of life (Noyes, 1980; Noyes & Slymen, 1979; Rosen, 1975; Noyes & Kletti, 1976; Ring, 1980; Sabom, 1982; Moody, 1975). Suicide attempters made equivalent responses and often reported a new hope and purpose in being alive (Rosen, 1975). The world of nature was also
viewed with new appreciation by many (Ring, 1980; Sabom, 1982). Des Pres (1976) described a heightened sensitivity to beauty among those whose survival was threatened.

Another of the most frequently reported aftereffects was a deeply felt decrease or actual loss of the fear of death (Noyes, 1980; Noyes & Slymen, 1970; Noyes & Kletti, 1976; Moody, 1975; Ring, 1980; Sabom, 1982). Many stated that the calm resignation they felt in the face of death was the most remarkable aspect of their experience, and as a result, they now truly viewed death as part of the natural process of life (Noyes, 1980; Noyes & Kletti, 1976).

Several people in Ring's (1980) study reported they placed less value on material things since their NDE and that they now believed there was more to life than its physical or material dimension.

One of the strongest measurable aftereffects in Ring's (1980) study of NDE concerned the belief of life after death. Sabom (1982) and Ring (1980) both found this belief was much greater in those who had a deeper experience than in those who merely came close to death. For the most part the experiencers reported that life after death was not just highly probable but a veritable certainty (Ring, 1980; Sabom, 1982).

The general characteristics of NDE appeared to follow a consistent pattern with the deeper experiences producing an
increased quantity and quality of aftereffects. After interviewing individuals who had NDE, many researchers expressed feeling their own personal change such as Sabom (1982) who revealed that he now felt "humble to the ways of the universe" (p. 186). As Ring (1980) pointed out, the meaning we bestow on NDE is critically dependent on the interpretation we are justified in giving it.

Possible Explanations of Near-Death Experience

Recent investigations (Ring, 1980; Sabom, 1982) of the NDE demonstrated no significant correlation to the standard demographic measures, religious affiliation, religiosity or manner of nearly dying. Since the variety of interpretations about NDE are usually organized as psychological, physiological, pharmacological and more recently, holographically, the literature will be reviewed using the four conceptual categories as subsections.

According to psychological explanations of NDE, when faced with potentially inescapable danger, individuals attempted to depersonalize and exclude this reality from perception by replacing it with pleasurable fantasies (Pfister, 1930; Noyes & Kletti, 1976). This explanation, which also included perceptions of unreality and emotional detachment, was actually the opposite of the previously described NDE dimensions causing researchers to view the explanation as unconvincing or irrelevant (Osis &
Haraldsson, 1977; Ring, 1980; Grosso, 1981; Sabom, 1982; Greyson, 1983).

Previous expectations of what death would be like, based on religious teachings, was advanced as another explanation for NDE. Moody (1975), however, reported that many people stressed how different their experiences were to what they had been led to expect from religious training. Christian religion, according to Grosso (1981), seemed to encourage attitudes of collective guilt based on doctrines such as Original Sin. In contrast, the empirical picture was much more humane. These religious beliefs influenced interpretations of NDE and not the content of these experiences (Ring, 1980; Grosso, 1981; Sabom, 1982).

Prior knowledge of the existence of NDE was also eliminated as a possible cause when it was found that those without prior knowledge of NDE actually reported a deeper experience (Rings, 1980; Sabom, 1982).

Wishful thinking was also ruled out as a possible explanation when one considered the cases of individuals who encountered relatives they never knew existed (Ring, 1980).

Denial of death, as stated by Rank (1971), as an explanation for this near-death phenomena was also excluded since it actually seemed to inhibit the experience rather than promote it (Gross, 1981).
Dreams or hallucinations were also offered as an interpretation of NDE. Freud (1965) stated that people perceived the unreality of dreams in order to tolerate the impact they often produced. Respondents in several studies, however, stated emphatically that their experiences were real both at the time as well as in retrospect (Ring, 1980; Sabom, 1982; Moody, 1975). Moreover, Ring (1980) and Sabom (1982) included individuals in their studies with first-hand experiences with hallucinations as well as NDE; they found that these respondents could easily distinguish between the two.

A final psychological explanation for this phenomena was related to reactivation of birth memories and was suggested by Grof and Halifax (1977) and Sagan (1979). Sagan (1979) stated that the basis of near-death and mystical phenomena was somehow "wired in," and that drugs or the near-death experience might reactivate the one situation common to us all, birth. The out-of-body experience, as well as the tunnel component, was suggested to represent a flashback to the process of exiting through the "tunnel" of the vagina into the light of the delivery room (Gross, 1981). Becker (1982) criticized this birth memory model in part, on the grounds that the neonatal nervous system was physiologically incapable of perceiving and encoding the birth process in sufficient detail to account for near-death imagery, and in part on the grounds
that these two experiences did not correspond in any meaningful way to the content of near-death imagery. In addition, this superficially appealing model relating birth to death did not account for any difference in experience when an individual had a difficult birth or was born by Cesarean section (Greyson, 1983). According to Grosso (1981) the forms of the two processes were not only not analogous but seemed to be the reverse of each other; being born into this world seemed painful and dying out of it seemed to be pleasant.

The second category of NDE explanations pertains to the physiological causes. Temporal lobe seizures, also known as psychical seizures, have been suggested by McHarg (1978) as a possible explanation for NDE. He further stated, however, that a paranormal basis for the content of deathbed visions was not invalidated by a medical reason for their occurrence (McHarg, 1978). According to Elliot (1966), temporal lobe seizures were commonly displayed in bizarre, explosive episodes. Sabom (1982) compared Penfield's (1955) extensive research in temporal lobe seizures to the components of NDE, finding vast differences.

Cerebral anoxia and hypercarbia were two other possible physiological explanations for the occurrence of near-death phenomena. Since these two conditions are often the physiological consequences of a near-death crisis event,
this appeared to be a plausible explanation for the associated altered state of consciousness (Ring, 1980; Sabom, 1982). The studies of anoxia by McFarland (1932) and Henderson and Haggard (1927) showed the hypoxic effects to be in sharp contract to the components of NDEs (Sabom, 1982; Moody, 1975; Ring, 1980). Ring (1980) stated that the cerebral anoxia explanation had been embraced too glibly and he questioned how it could explain the knowledge that experiencers sometimes have of the status of a loved one whose death had not been disclosed to them.

Hypercarbia in the brain was also ruled out by Sabom (1982) as a causative factor after he examined the effects of elevated carbon dioxide in a study done by Meduna (1950). A documented case of Sabom's (1982) further disproved the anoxia and hypercarbia explanations, at least in the following instance: While having an out-of-body experience during his resuscitation, a patient reported viewing a needle being injected into his groin. This was actually a collection of blood from his femoral artery for a blood gasses analysis. The laboratory results indicated an arterial oxygen level well above normal and a carbon-dioxide level actually lower than normal (Sabom, 1982).

The third category of explanations refer to pharmacological causes of NDE. Drugs and anesthetics have also been looked to as a possible cause of NDE. Palmer (1978)
has criticized the work of Osis and Haraldsson (1977) for not properly including certain baseline data on drugs as a possible influence on the occurrence of near-death phenomena. More recently, however, the research has shown that drug-related conditions were associated with an impairment of NDE (Ring, 1980; Gross, 1981; Sabom, 1982). Accordingly, individuals who had attempted suicide by drugs represented the category of respondents with the highest incidence of non-recall (Ring, 1980).

A more recent pharmacological speculation concerned the release of B-endorphins as a contributor to the "launching of death" (Thomas, 1976). This substance, since it appears to possess many of the characteristics of morphine sulfate, was proposed as a cause for the profound painlessness reported by persons during NDE (Sabom, 1982). A study which allowed comparison between the effects seen with B-endorphin and NDE was conducted by Oyama and Yamaya (1980). Fourteen cancer patients with intractable pain received B-endorphine injections directly into the cerebrospinal fluid. All reported complete relief of pain within minutes with total pain relief for 22 to 73 hours (Oyama and Yamaya, 1980). As Sabom (1982) pointed out, subjects realize painlessness in NDE only during the experience itself which may last for seconds or several minutes. Also the B-endorphin patients reported somnolence and sleep (Oyama and Yamaya, 1980), whereas those who
reported NDE described hyperalertness in which there was clarity of "vision" and thought (Sabom, 1982).

The fourth and final category of explanations refers to a holographic approach to understanding NDE. Ring (1980) advanced the holographic perspective as an interpretative framework for making sense of NDE and surrounding phenomena. Holographic theory has represented a paradigm shift and revised perspective in science corresponding with increased interest in consciousness (Pelletier, 1979; Ferguson, 1978). The holographic theory, inexpressible in linear form, represents a holistic approach to understanding NDE.

The holographic implicate domain has been realized in NDE, mystical and meditative states. It has been spontaneously realized also in times of stress. Because of this, phenomena associated with NDE cannot exclusively be viewed as a result of being in a subjective state of dying (Ring, 1980, 1984). Metaphysics has long associated the holographic implicate domain with God (Pribram, 1979). The personal accounts of countless experiencers likewise have indicated that they believed or "knew" they experienced God while having NDE (Moody, 1975; Ring, 1980, 1984; Sabom, 1982). Many writers (Bentov, 1979; Ferguson, 1970; Pelletier, 1979) contend that science and mysticism meet in holographic theory and that they can be seen as two divergent methodological paths leading to a common vision.
of the nature of the universe. The intangible states of consciousness such as those present in NDE and mystical states have heretofore been theoretically unsupportable. With the discovery of the hologram and holographic theory, the possibility now exists for explaining the mechanism of NDE.

According to Pribram (1976), a neurosurgeon and holographic theorist, spiritual insights fit the description of the holographic domain and these are explainable with the invention of the hologram.

A hologram produces a three-dimensional image from a photographic film on which the interference pattern of light waves reflected from an object or scene has been recorded. When the film is illuminated an image of the object is produced. (p. 72).

Any part of this interference pattern contained information about the whole, and Pribram (1971) theorized that the brain itself functioned holographically. By mathematically analyzing interference wave patterns, objects were perceived as physical reality. The fundamental physical entity, however, was the quantum field continuous everywhere in space and similar to concentrations of energy which were constantly moving (Capra, 1975). Similarly, Pribram (1976) advanced primary reality to be composed of frequencies only, and that the brain functioned as a frequency analyzer that converted the frequencies into familiar objects by a process analogous to illumination of
an interference by a laser beam. This frequency domain dealt with the density of occurrences only. Since time and space were non-existent, everything occurred at once, synchronously. These lack of time and space coordinates have been acknowledged by many near-death experiencers. Many have reported that while the event "was real," there was no awareness of time or space (Ring, 1980; Sabom, 1982; Moody, 1975). This "other reality," known to near-death experiencers, has also been described as a higher level of consciousness. Such states of consciousness are reached, according to Pribram (1979), by a particular mechanism in the brain that probes the doorway to the "implicate order of the holographic reality." Ring (1980) postulated that NDE triggers this mechanism which causes a set of wave forms to activate the appropriate hologram and the individual is instantly aware of "another higher reality." This implicate domain, also known as higher consciousness, has historically been accessed by mystics (Pribram, 1978). Eastern religious literature is replete with accounts of such paranormal, transcendental states reached through meditation. These states range from simple precognition through knowledge of another's thoughts to "a leap into transcendental oneness" (Pribram, 1979). Many individuals have described a sense of "oneness with the light" during NDE (Ring, 1980, 1984; Sabom, 1982).
According to Pribram (1978), while the mechanism for reaching the phenomena of NDE or any mystical state is not fully understood, the holographic perspective supports a theoretical basis that allows such understanding. To promote this, Ring (1980) reviewed many components of NDE and interpreted them from the holographic perspective. Accordingly, Ring suggested that NDE was a type of mystical phenomena that enabled an individual to enter the frequency domain of a new order of reality available when one's consciousness was freed from its dependence on the physical body. The tunnel or darkness component of NDE represented the shifting of consciousness to a direct perception of the frequency domain (Ring, 1980). The life review component of NDE was considered by many researchers (Grof & Halifax, 1977; Keith, 1976; Ring, 1980) to be interpreted readily in holographic terms since knowledge was imprinted and retrievable from the mind in a fraction of a second (Bentov, 1979). Ring (1980) postulated further that the "spirits" encountered in NDE were the products of the frequencies of interacting minds attuned to a holographic domain where thought created reality. Holographically, the "light" encountered by many experiencers was a mind-created world fashioned of interacting or interfering thought patterns and was fully as real as is our physical world (Ring, 1980).
As the most recent researchers (Ring, 1980, 1984, Sabom, 1982) have indicated, NDE appeared to be a real phenomenon yet one drastically different from the physical world with which we are now familiar. The world of appearance, while certainly a "real" world, may not be the only order of reality. Perhaps the reason experiencers spoke with such conviction and certitude of NDE was because the event constituted a glimpse into a frequency domain foreign to most people, yet nevertheless real.

Having discussed the psychological, physiological and pharmacological explanations of NDE, the conclusion at this time is that none of the explanations stemming from these traditional disciplines provide an adequate framework from which to interpret NDE (Ring, 1980; Grosso, 1981; Sabom, 1982). The holographic framework, however, has been advanced to explain the levels of consciousness apparent in NDE and is considered to provide the most rational basis for understanding NDE (Ring, 1980).

Due to the theological overtones associated with this subject, many investigators have deemed this area inappropriate for research even though they believe that anything and everything can and indeed should be subjected to rigorous scientific inquiry (Widdison, 1982). Albert Einstein's observations, however, remind researchers that an objective scientist must maintain an open mind:

It is possible there exists human emanations which are still unknown to us. Do you remember how
electrical currents and "unseen waves" were laughed at? The knowledge about man is still in its infancy" (David & Earle, 1978, p. 37).

Conceptual Framework

The following conceptual framework is advanced as a basis for understanding NDE as a singular human event with far-reaching implications in the lives of those persons with first-hand knowledge. Regardless of their background or previous beliefs, near-death experiencers described NDE as a profound transcendent event. Its reality does not fade with time but rather remains as vivid as when it first occurred. For some individuals it is the most important experience of their entire life, resulting in many positive changes which greatly impact on their personal and professional lives. Many express an inability to "fit in" to their previous life situations, making changes in friends, careers and recreational interests. According to Kubler-Ross (1984), NDE gives an individual new dimension to living and to the understanding of human life and its purpose. Correspondingly, many individuals reevaluate their life priorities adopting a more expanded view of life, nature and the value of material things (Ring, 1980). Previously accepted beliefs and values on these issues may now be viewed from a new perspective gained through experiencing an expanded "reality" considered to be present in NDE.
Individuals also reported feeling "broadened and deepened" by NDE and became more reflective and concerned with "ultimate philosophical issues" (Moody, 1977). Additional aftereffects generated by NDE may thus relate to the issue of death. Having been so close to death, which mankind instinctively avoids, and experiencing indescribable love and peace appears to alter one's beliefs in the concept and meaning of death.

In addition, the relationship of NDE to its aftereffects may also be viewed from a holistic perspective. According to Krieger (1981), the "crux" of the holistic experience lies in its transformative elements. In NDE, transformations may be motivated by an energy exchange between man and his environment. During NDE, individuals appear to encounter a world closely paralleling Rogers' (1970, 1983) definition of environment which is described as four-dimensional, without boundaries, and extending to infinity. Such an open-ended view of life and our environment facilitates a readiness to contemplate the new views that an increasing consciousness will present. Similarly, the individual experiencing NDE is thought to also experience a higher state of consciousness which so profoundly affects his beliefs and values that transformations may occur and be evidenced in the aftereffects the individual perceives.
Summary

An historical review of NDE reveals that the phenomenon has been known since prehistoric times. While initial inquiry into this experience was conducted by parapsychologists, physicians have since entered into this research, supporting the earlier studies with their findings. The nursing literature, however, is severely lacking in its inquiry into NDE.

Theoretical concepts in nursing, such as holism and unitary man, bear some relationship to NDE phenomena by advancing such concepts as spiritual dimensions, energy fields and an unseen fourth dimension. NDE does not, however, appear as a related issue in any theoretical nursing literature. Death and dying literature, while focusing on the patients', families', and nurses' reactions and adaptations to dying and terminal illness, does not include any studies on NDE or its implications. Likewise, geriatric literature, although currently exploring the spiritual dimension of aging, has not reported on NDE. Some beginning reports have been made in the literature, however, in the area of critical care nursing. Oakes (1981) reviewed NDE components and reported on the preliminary results of a poll of 30 critical care nurses who were asked for their reactions to anecdotal accounts of NDE. While many nurses in this study were "fascinated" with this subject, some were disbelieving and skeptical
about the NDE accounts. Sommers (1985) included NDE in her report about maintaining a therapeutic environment during cardio pulmonary resuscitation. The out-of-body component of NDE was emphasized and nurses were cautioned to be aware of the possibility of its occurring with NDE during resuscitation attempts. Since neither of these reports focused on the transforming aspects of NDE or its aftereffects, this study is considered significant to nursing as a means of increasing this awareness.

The identified characteristics of NDE have remained consistently similar in historical descriptions and contemporary research. The prevalent common themes were a peaceful, loving and beautiful experience with an other-world quality. Aftereffects of NDE were found to be abundant and profound, and many researches viewed them as the most important and far-reaching aspects of NDE. The vast majority of aftereffects were not only positive but reflected a transcendent subjective change in the experiencer's personality. Reduced fear of death and increased belief in life after death were two of the most notable changes. Many possible explanations were presented to account for NDE. These interpretations were from a psychological, physiological and pharmacological perspective. Most significantly, with the discovery of the hologram and its theory, a framework emerged to begin to support scientific explanations of surrounding NDE. The
holographic events notably explain the higher states of consciousness that were presumed to be present in NDE. The conceptual framework for this study identifies NDE as a transcendent event unexpectedly occurring in the life of an individual close to dying. The profound nature and reality of this experience influences many individuals to reevaluate their beliefs and life priorities based on a new perspective gained from a higher level of consciousness presumed to be present during NDE. This reevaluation often results in changes in values producing a variety of aftereffects in the lives of experiencers.
CHAPTER III
METHODOLOGY

Chapter III contains the research design, population, sampling, instrumentation, data collection and method of data analysis. The research proposal was approved by the Behavioral and Social Sciences Human Subjects Review Committee at The Ohio State University (See Appendix A).

Design
A descriptive research design was used for this ex post facto survey. The main purpose of this study was to compare the individuals' perspective of their beliefs and values before and after near-death experience (NDE). Five specific aftereffects that may have occurred as a result of NDE were compared with the perceived depth of NDE as based on information obtained in a tape recorded interview.

Population
The population consisted of individuals reporting NDE for any reason. They were male and female adults from the Columbus, Ohio area who spoke English and were fully recovered from the life-threatening circumstances that precipitated NDE.
**Sampling**

A non-probability sampling method was used to obtain a group of individuals who had NDE. The investigator anticipated obtaining a sample of 15. Polit and Hungler (1983) recommended that a sample size of at least 10 be used. Subjects in this study had to meet the following criteria: a) having come close to death for any reason and subsequently experiencing any or all of the phenomena in the Weighted Core Experience Index (WCEI) (Ring, 1980); b) being over 18; c) English speaking; and d) fully recovered from the condition precipitating NDE. The sample was obtained by the snowball sampling method and from a local chapter of the International Association of Near-Death Studies (IANDS).

**Instrumentation**

The Weighted Core Experience Index (WCEI) (Ring, 1980) (See Appendix B) was used to determine the depth of the NDE. According to Ring (1980), the weighting of the factors in this index was slightly arbitrary but they were weighted before formal analysis of his data. The WCEI looks at ten components of NDE and their respective weights. These components were determined from the presence, or absence or strength of a given component as evidenced in the interview. The scale ranged from 0, indicating the absence of any NDE to 29, representing the
deepest type of experience. According to Greyson (1984) the WCEI was a useful scale for rating the depth of NDE, however, the index was not based on statistical analysis and has never been tested for internal reliability. The WCEI does have face validity as a rating scale for NDEs that have been identified (Greyson, 1984). The components listed in the WCEI are accepted as the common elements of NDE. Although the construct validity of the WCEI has not been thoroughly determined, it is the most adequate and most widely used instrument available for the quantification of NDE (Greyson, 1984). In addition the respondents' reliability contributed to the effectiveness of determining which components were present and to what depth the NDE occurred.

The second measurement tool was the Aftereffects Scale (See Appendix C) which was developed by this investigator specifically for the purpose of this study. This scale asked questions about five possible aftereffects or value changes of NDE. These five aftereffects were chosen by the investigator based on the concepts developed in the literature review. Each question was rated based on the degree of change and scored on a scale from 1 to 5 with 5 being the greatest amount of positive change. For three of the questions (Appreciation of life, Appreciation of the Beauty of Nature and Belief in life After Death) the ranking of responses was: 1 = greatly decreased, 2 =
decreased, 3 = no change, 4 = increased, and 5 = greatly increased. To reflect this positive change in values the sequence of scoring was reversed for two questions (Value of Material Things and Fear of Death) and the ranking was: 1 = greatly increased, 2 = increased, 3 = no change, 4 = decreased, and 5 = greatly decreased. Total possible scores for the Aftereffects Scale ranged from 5 to 25. Content validity of this scale was obtained by having it critiqued by the investigator's thesis committee. Reliability of this scale has not been established.

In addition to these instruments a tape recorded interview was conducted (See Appendix D) and demographic data were collected (See Appendix E). The interview obtained the individual's subjective description of NDE which was used to describe anecdotal accounts of this experience. Also the interview provided information from which the WCEI was determined. This interview was based on the one utilized by Dr. Ring (1980) in his book Life at Death: A Scientific Investigation of the Near-Death Experience. Slight modifications were made by this investigator for the purposes of this study. Questions on the Aftereffects Scale were also discussed in this interview. The answers to these questions were recorded on the Demographic Data Format (See Appendix E).
Data Collection and Analysis

Once the potential subject's name was secured he was contacted by phone. The following explanation of the research was given to the potential subjects:

My name is Elaine Gomez and I am a Registered Nurse. I am also a graduate student at The Ohio State University and am presently conducting a research study under the direction of Dr. Mary Ann Ruffing-Rahal. ___________ gave me your name as someone who might be interested in participating in this study. The study has to do with individuals who have had near-death experience. I understand you may have had such an experience. Is that right? If yes: Nurses as well as the medical profession are wanting to learn more about these experiences so we can understand and support the people who have them. You are under no obligation to participate in this study. If you do agree I would like to arrange a time and place to meet with you. During the meeting I will ask you to discuss this experience with me. In order to have an accurate record of what you say without my having to write everything down I would like to tape record our meeting. The tapes will be erased following the research study.

Since this may be a very private and personal experience you may feel a little hesitant to discuss it with me. I want to assure you that the information will be held in strictest confidence and you will not be identified
by name when the results are analyzed. This whole process should take about one hour and other than this time you would have no other obligations. I would also like you to understand that neither agreeing nor disagreeing to participate in this study will have any effect on your relationship with ________________.

Do you have any questions? Can you tell me then would you like to participate?

The referral person's name was used to fill in the blanks. If the potential subject agreed to participate a mutually convenient time and place for the interview was arranged.

At the interview the individual was informed that there were no expected risks involved in this study and they were asked to sign a consent form (See Appendix F). Demographic data were collected from the individual prior to the interview. They then participated in a taped interview and were asked the five questions on the Aftereffects Scale. Care was taken to respect and support these individuals during their report of a personal and significant experience in their life. Explanations were given that there were no right or wrong answers and that the investigator was interested in how they perceived this experience. A quiet place was made available for the interview that took approximately one hour. Five separate 3 x 5 cards were used to present each of the five
questions, in turn, on the Aftereffects Scale. The responses were included on each card for their consideration but the rating numbers were not included. Their verbal response was recorded by the investigator on the Demographic Data Format.

The data were analyzed using descriptive statistics, frequency distributions and means to describe the sample. Questions one through five were analyzed using frequency distribution and item means. Question six was analyzed using the Spearman rank correlation coefficient.

Content analysis of ten audio tapes was based on Glaser's (1978) method and conducted by the following process.

1. Each tape was reviewed making a verbatim transcript of the subject's report of NDE.

2. Each transcript was reviewed line-by-line coding the components of NDE identified in the WCEI. This information was used to score the depth of the experience.

3. A second review of each transcript was done to code the aftereffects included in each research question and to identify anecdotal accounts of any changes.

4. Line-by-line review of each transcript was again conducted to selectively code any additional aftereffects. These codes were memoed and grouped into corresponding categories.
5. Tapes were then reviewed a second time assuring accuracy and looking for intensity of expression in subject's description of NDE and its aftereffects.
CHAPTER IV
ANALYSIS OF THE DATA

Chapter IV presents a description of the sample utilized in this study and the results obtained through content analysis of the data. The last section will be a discussion of the results obtained through this study.

Description of the Sample

The sample consisted of ten caucasian individuals who had near-death experiences resulting from illness, accident or attempted suicide. They were fully recovered, non-institutionalized and had no serious current health problems. Table 1 presents a description of the sample. There were four males and six females ranging in age from 27 to 72 years, with a mean age of 50 years. The average age for the men was 48 years and for the women was 52 years. The number of years that had elapsed since the occurrence of NDE ranged from two to 15 years with a mean time span of 9.6 years. The age range at the time of NDE was from 18 to 66 years with a mean age at the time of the experience of 46.3 years. The mean age for men at the time of NDE was 38 years and for women it was 43 years.
TABLE 1

Description of Sample in
Regard to Demographic Variables

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>N = 10</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>4</td>
<td>40</td>
</tr>
<tr>
<td>Female</td>
<td>6</td>
<td>60</td>
</tr>
<tr>
<td>Age at Interview</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-35</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>36-53</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>54-72</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>Age at Near-Death Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-35</td>
<td>4</td>
<td>40</td>
</tr>
<tr>
<td>36-53</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>54-72</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>Years since Near-Death Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>6-10</td>
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<td>40</td>
</tr>
<tr>
<td>11-15</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-4 Years College</td>
<td>7</td>
<td>70</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Baccalaureate Degree</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>Blue Collar</td>
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<td>10</td>
</tr>
<tr>
<td>Homemaker</td>
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<td>20</td>
</tr>
<tr>
<td>Student</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Retired</td>
<td>3</td>
<td>30</td>
</tr>
</tbody>
</table>
All of the sample had some college education. Two had baccalaureate degrees and one an associate degree. The others (N = 7) had from two to four years of college education with one of them presently enrolled in college.

In regard to occupation 30 percent (N = 3) of the population were either professionals or were retired. Two were homemakers, one was a blue collar worker, and one a student.

All of the sample belonged to the Christian faith. Subjects were a combination of various European descents with the exception of two who were also part native American. Eight of the sample were of partial Irish background and six were of partial English background.

The physical conditions that precipitated NDE are presented in Table 2. They represent a wide variety of causes. Five (50%) of NDE in this sample were from illness. Thirty percent (N = 3) were from accidents and 20% (N = 2) were from attempted suicide.

Contextual Data

Eight of the 10 tape recorded interviews took place in the individual's homes. Two occurred in a church meeting room since a quiet atmosphere was necessary and this was convenient for the subject. Each interview took approximately one hour and was attended by the subject and this investigator only. The data were collected in
<table>
<thead>
<tr>
<th>CONDITIONS</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cerebral Aneurysm</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Viral Pneumonia</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Heart Attack</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Empyema</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Meningitis</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Accident</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assault</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>Car Accident</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Suicide</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drug Overdose</td>
<td>2</td>
<td>20</td>
</tr>
</tbody>
</table>
September and October of 1985. All of the sample appeared very willing to participate, were eager to provide accurate and thorough information and seemed pleased to be of any help in contributing to this research. One individual, however, stated prior to the interview that there was one aspect of the experience that she refused to share with anyone. All but one requested a summary of the results of the study.

Research Questions

Results were analyzed according to the questions of the study.

Question One. Do individuals reporting near-death experience perceive a greater appreciation of life? Appreciation of life is ascertained by the interview and question one on the Aftereffects Scale. A subject's response to this question is based on perceived change in self as a result of NDE. Table 3 presents the scores for the sample. The range of actual scores for the subjects was 3 to 5 with a mean score of 4.30. Three subjects reported no change because, as one described, "I had appreciated life a lot before the experience and did not believe it changed since." The other subject indicating no change stated, "I think I have a very firm basic philosophy and it [NDE] has not changed me to any extent." This same
<table>
<thead>
<tr>
<th>Aftereffects</th>
<th>Greatly Increased</th>
<th>Increased</th>
<th>No Change</th>
<th>Decreased</th>
<th>Greatly Decreased</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appreciation of Life</td>
<td>6</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Appreciation of Beauty of Nature</td>
<td>6</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fear of Death</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Value of Material Things</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Belief in Life After Death</td>
<td>7</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
individual, however, indicated earlier in the interview that, "It [NDE] broadened the reason we are here and my appreciation of the world."

Six individuals (60%) scored 5 (greatly increased) and one-half of them indicated an accompanying change in the pace of their lives, such as:

I've slowed down a lot. I appreciate things a lot more. I smell the roses now.

In the past I was always in such a rush. Now I take everything in stride. Hey, I don't get shook up at all anymore.

I was too busy before. Now, wow, . . . It's different!

The remaining three who reported a great increase in appreciation for life indicated a new awareness and value of "the little things," for example:

It's the doing that's important. I enjoy, appreciate . . . I think about day-to-day experiences rather than letting it go on by.

Everything got more beautiful and I thought I have never seen anything before! Even the choice 'greatly increased' isn't adequate.

I have so much to be thankful for.

In summary the majority (70%) of subjects reported some increase in their appreciation of life and almost all of them indicated a great increase. Most of those responding no change (30%) believed they had appreciation for life prior to NDE.

**Question Two.** Do individuals reporting near-death experience perceive a greater appreciation for the beauty
of nature? Appreciation of the beauty of nature was
determined by the interview and question two on the
Aftereffects Scale. The subjects response to this question
is based on a change perceived in self as a result of NDE.
Table 3 presents the scores for the sample. The range of
actual scores was 3 to 5 with a mean score of 4.30. Over
one-half of the subjects (50%) received a score of 5
(greatly increased). A score of 3 (no change) was received
by three subjects and two of them indicated they had
"always had that appreciation" and "always liked nature.
That didn't change." Those subjects reporting the greatest
amount of change for this question frequently gave very
emphatic answers in a highly convincing manner, such as:

I am [since NDE] in awe of nature and its cycles.
I appreciate trees more!

I seem to have an immense appreciation of nature
... of God's world and that's why now I'll just
pick up and go to a state park and spend the
afternoon just looking ... just walking around.
I have never in my life ... seen such beauty.
As a matter of fact I've made two trips in the
last two weeks ... down in the hills, just to
see all this. And I never did that before in my
life. I just drive along and just feast.
I seem to understand more [about] the magnificence
and the beauty.

Others easily recognized a change in their perception
of nature, such as:

The change was so great. It was fantastic! I am
so in touch with nature that I have never, never
known nature as I have since the experience.

Oh yes! I notice it [nature] a lot more. I'm now
more aware of the seasons than before ... of the
beauty of the seasons. I go for walks more ... and I notice everything around.
When we drive . . . I love to look at the scenery much more so than before.

In summary, the majority (70%) indicated an increased appreciation for the beauty of nature. Several individuals in this group made emphatic declarations of this change prior to being asked. Those reporting no change (30%) indicated having this appreciation prior to NDE.

**Question Three.** Do individuals reporting near-death experience perceive less fear of death? Fear of death was assessed by the interview and question three on the Aftereffects Scale. The subject's response to this question was based on a change perceived in self as a result of NDE. Table 3 presents the scores for the sample. The range of actual scores for the subjects was 4 (decrease) to 5 (greatly decreased) with a mean score of 4.80. The majority (80%) of the subjects had a score of 5 indicating a great reduction in their perceived fear of death. The remaining subjects (N = 2) had a score of 4 indicating a perceived decrease in this fear. None of the sample reported this fear to be unchanged or increased since NDE.

Several subjects, reporting a great reduction in the fear of death, were succinct and matter-of-fact in their responses such as, "no fear," "absolutely no fear" or "not
anymore." Other individuals gave reasons for the change making remarks such as:

Death doesn't scare me anymore . . . it's part of the process.

It's [NDE] profoundly affected the way I feel about dying. I'm just not frightened anymore. It's the nicest place I've ever been. I won't be afraid to go back.

Death is a reward for finishing our schooling . . . I anticipate it!

I'm now aware of the meaning of eternal life.

One subject likened his present fear of death to "drinking a glass of water! . . . no fear at all." Two individuals reporting a decrease in the fear of death explained, "I don't feel like I was really afraid before, but now I'm not at all!" or "It [NDE] gave me a comforting feeling about death, . . . but I wasn't really afraid before."

In summary, all the subjects reported some decreased fear of death since NDE and eight (80%) indicated a great decrease. This group also expanded their replies by reporting that they now had "no fear" of death since NDE.

**Question Four.** Do individuals reporting near-death experience perceive less value of material things? Value of material things was assessed by the interview and question four on the Aftereffects Scale. The subject's response to question four was based on a change perceived in self as a result of NDE. Table 3 presents the scores
for the sample. The range of actual scores for the subjects was 3 (no change) to 5 (greatly decreased) with a mean score of 4.30. Ninety percent of the sample indicated a reduction in the value they placed on material things. Four (40%) of this group reported a great reduction in this value and five (50%) reported a decrease. One reported no change in the value placed on material things. No one indicated an increase in this value.

Two of the subjects reporting a great reduction in this value expressed surprise at this change in themselves. Examples of these comments are:

I find that I have very little value left for material things. That surprises me . . . because there was a time when all this was very, very important to me. When I first became a Christian [before NDE] it impressed me some, but it was near-death that made such a big difference. I have to admit it. I hadn't thought about that even, but it's the truth!

[The reduction in this value was] so much that it bothered me. I had absolutely [immediately after NDE] no feeling for material things.

This subject continued by describing how she had to "work on getting some of that feeling back because we need them [material things] to live on this planet." Likewise another subject indicated this value was "bounding back because . . . you know, we have to live." Others who indicated a great decrease in this value since NDE compared the lack of importance they now placed on material things
to "what we really have with God," or "what's really important."

Many of the subjects who reported a decrease in this value stated that material things are still important to them but mainly in their relationships with others. One subject described how he "enjoyed giving more now and if it takes money, no problem." I like to give but not for my own benefit." Another valued the "things that people give me. . . . I find those things very endearing. It's like a reminder that I'm a part of that person's life." In addition, this individual no longer enjoys "going shopping" unless she actually "needs something." Two of the experiencers equated a decreased value on material things to their new awareness that "they aren't permanent" and "they are just temporary so they aren't as valuable to me."

None of the subjects mentioned needing anything they did not already have. Several reported a contentment with what they had. One subject summed up his views by saying:

Instead of getting and grabbing I seem to have all my needs met with so little effort. It's really weird! Things seem to just fall into place. . . . It used to be, you gotta get this, you gotta get that, constantly. Then you'd lose it and have to get it again. Now, I could care less! Yet, I have everything I need and it couldn't be better!

In summary, the majority of subjects reported placing less value on material things since NDE. Almost one-half of this group indicated a great decrease in this value and
one-half indicated a decrease. Only one subject indicated no change in this value following NDE.

**Question Five.** Do individuals reporting near-death experience perceive an increased belief in life after death? Belief in life after death was ascertained by the interview and question five on the Aftereffects Scale. The subject's response to this question was based on a change perceived in self as a result of NDE. Table 3 presents the scores for the sample. The range of actual scores was 3 (no change) to 5 (greatly increased) with 4.60 as a mean score.

Nine (90%) of the sample perceived some degree of increase in their belief of life after death following NDE. This belief was greatly increased in 70 percent (N = 7) of the experiencers and increased in 20 percent (N = 2) of them. Only one reported no change in this belief and none perceived any decrease in it.

Many of the group that reported a great increase in this belief stated that they "hadn't believed" or "had my doubts" prior to NDE. They now expressed strong conviction by such remarks as:

You couldn't beat it out of me now [laughs]. . . .
Now there's no doubt in my mind.

The experience was so real. It was of another reality. Not like you're dead . . . [you] just move into another place. It's different. Death isn't a finality. It's another level of consciousness . . . like the [American] Indian
philosophy of nine astral planets. Totally different from [what] Christianity [teaches].

Several others reported a great increase in their belief in life after death even though prior to NDE they "believed," "sensed" or "had faith" in this concept. Now, however, they referred to it as "a knowing," "not just faith," "more than a belief."

Both subjects reporting an increase to this question stated the answer choice "greatly increased" was not correct because they had "believed this before." One experiencer expanded on this by saying "but now I feel like I've seen a part of it. I know its really there."

The only subject to report no change in this belief had an entirely different view of this concept as identified by the following response: "I was not religious previously so I don't think it [NDE] had anything to do with anything as foolish as heaven. To me it [life after death] means we live on in the memories of young people who are left."

In summary, all but one subject reported an increase or great increase in their belief of life after death following NDE. Seventy percent of the sample reported a great increase in this belief. Many substituted the word "knowing" for believing to indicate it was now much more than a belief.
**Question Six.** Is there a relationship between the Weighted Core Experience Index (WCEI) and the Aftereffects Scale? The WCEI looks at ten components of NDE and their respective weights. It is used to measure the depth of experience. The interview provided the data needed to determine the WCEI score. The range for the WCEI is 0 (indicating no NDE) to 29 (indicating the deepest possible experience). The range of possible scores of the Aftereffects Scale is 5-25. Table 4 presents the scores by subject for this sample. The range of actual scores for the WCEI is 2 to 20 with a mean score of 12.50. Anyone scoring over 9 on this scale is considered to have a deep experience (Ring, 1980). Seventy percent ($N = 7$) of this sample scored higher than 9.

Table 5 presents a frequency distribution of respondents' perceptions of NDE components in the WCEI. Nine (90%) of the sample reported having strong feelings of peace, painlessness and pleasantness during NDE. This was described by one subject as "the most revolutionary peaceful feeling that I ever had." Others explained it by describing feelings of "incredible joy," "calmness with no anxiety" and "painlessness."

Encountering a presence or hearing a voice was reported by nine (90%) of the subjects. Four (40%) of this group described an awareness or "sense" of an unseen presence who communicated non-verbally. One subject "saw" her deceased
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<th>Respondent</th>
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Spearman $r = .3303$, $p = .35$
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<td>Taking stock of one's life</td>
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<td>Encountering visible spirits</td>
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father and communicated with him, three subjects reported an awareness of the presence of God or Jesus and one described the presence of an American Indian. Frequently the voice communicated to the subject that the "time was not right" for them to die.

Eight (80%) of the subjects reported seeing or being enveloped in bright light that "did not hurt" the eyes. The light was described by the sample as "pure light," "indescribably beautiful" and with "no shadows." One subject identified the light as "love" and another as "God."

The out-of-body component of NDE was reported by six (60%) of the subjects. Two of this group reported actually looking down on their bodies from above during NDE while the other four described being "somewhere else."

The subjective sense of being dead and a sense of entering a dark region were each reported by four of the subjects. Two of those subjects also associated a sense of moving with the darkness component of NDE.

The remaining components encountering "visible" spirits were reported by two subjects, and taking stock of one's life, seeing beautiful colors and entering into the light were each reported by one subject.

The Aftereffects Scale measures five possible changes resulting from NDE. The subjects' responses to these five questions are based on changes they perceive in themselves
after NDE. A score of 5 indicates the greatest amount of change in a negative direction and 25 indicates the greatest amount of change in a positive direction. Table 5 presents the scores by subject for this sample. The range for this scale is 16 to 25 and the mean is 22.30. One individual scored 25, the highest possible score. Three (30%) subjects scored 24, the next highest possible score and 3 (30%) other subjects scored 23. One subject each scored 22, 19 and 16 on this scale.

To determine if a relationship existed between the WCEI and the Aftereffects Scale the Spearman rank correlation test was used. The actual correlation coefficient was .3303 which is not statistically significant at the .05 level. Thus, there was no relationship between the WCEI and the Aftereffects Scale scores.

**Question Seven.** Do individuals with no prior knowledge of near-death experience have a deeper experience than individuals with prior knowledge of this experience? This question was to be analyzed using the Mann-Witney U Test and the subjects' scores on the Weighted Core Experience Index. Only one of the subjects interviewed had prior knowledge of near-death experience and therefore this analysis was not appropriate.
Additional Findings

In addition to the aftereffects specified in the research questions, content analysis of the data revealed several other notable changes. As these additional aftereffects were identified common themes began to emerge. These themes were used to categorize these additional findings. Any additional aftereffects that were identified by 4 (40%) or more of the sample is included in this report. These findings are presented to illustrate additional dimensions of the aftereffects and further advance the comprehension of NDE. They are grouped into six categories: 1) Searching; 2) Having a purpose; 3) Managing daily life; 4) Feelings for others; 5) Feelings about suicide; and 6) Having psychic abilities. All information was volunteered during the course of the interview. Because of the recurrence of these themes in the words of several subjects, the findings are viewed as relevant to the study.

1. Searching. One-half (N = 5) of the sample expressed a strong desire to know or understand more about their experience. Often NDE sparked the beginning of a quest. Searching for answers was manifested by such comments as:

It was like I was real curious about . . . everything.
Seeking is the biggest change. I do a lot of reading about it [NDE] to understand it better. My searching puts me in contact with people I can talk to about it.

The experience was the beginning of a search. I'm searching for religious meaning.

After [NDE] I started wanting to know more about the Lord.

I've tried a lot to replicate that good feeling. I've tried meditation . . . and it came close to that feeling of calm but it was night and day in comparison to it.

Many others who did not directly say they were searching displayed great interest and curiosity in this investigator's research.

2. Having a purpose. One-half (N = 5) of the experiencers believed their life now had a purpose. In some cases this purpose was yet elusive, for example, "I have a sense of purpose . . . of having a task to do, but what I'm not sure," and "There was something I had to accomplish," or "There's something I have to experience."

These individuals did not seem concerned that they, as yet, were unaware of what this purpose was.

Several subjects, however, had a definite sense of what their purpose was and were in the midst of actualizing it in their lives. Examples given by these individuals are:

I was allowed to live for a specific reason. One of them was to become a Christian. One year after the accident I committed my life to the Lord.

It has made me militant about the handicapped. The reason I was spared and my reason to go on is to help other handicapped . . . to get in and out of buildings. I've written articles [for medical
journals] about steps and railings for the handicapped.

I was allowed to live to help little children and that's what I've done for the last 10 years.

3. **Managing daily life.** This category refers to the changes that affected the way the subjects lived their daily lives and managed their time and temperament. One-half (N = 5) of the subjects expressed these changes with such comments as: "I live more for the moment now . . . worry less about yesterday and tomorrow," or "I'm not as impatient," or "My day-to-day values are more in perspective on the important things." One subject believed he could manage his time better now "because I found myself being more efficient and wasting less time on insignificant trivialities." New values acquired since NDE also affected one subject's job choice and he stated, "I changed jobs about a year later [since NDE]. I found there was an ethical conflict with my job."

4. **Feelings for others.** This change was reported by four (40%) of the sample and it was related to a renewed compassion and increased depth of feeling for others as evidenced by the following examples:

I find that I love people in a different way [since NDE]. That is still with me.

It's easier to forgive and not hate.

I really care about people. Although I've always liked people it's different now.
I don't judge people anymore. I now believe the worst criminal could stand in that presence [the light] and would feel that acceptance I felt coming through.

5. **Feelings about suicide.** Thirty percent (N = 3) of this sample related a changed view of suicide as a result of having NDE. Two of this group had actually been attempting suicide when the near-death experience occurred. All of these responses demonstrated a belief that suicide was not an option for them or others because "that choice was not ours to make." The one subject in this group who had not attempted suicide stated that he "received a sense of not being able to do anything to end our lives." The other two had both "been told" that they "shouldn't be here" or "can't come now." They interpreted this to mean that they should and could not end their lives "to escape from life." One subject stated she knew "it [death] wasn't going to happen for a long time so I couldn't be worried about all these little things. I learned a lot." The other subject who attempted suicide has since counseled a friend who was "threatening to kill herself" by sharing what was learned in NDE.

6. **Having psychic abilities.** This category includes data related to premonitions, healing and extrasensory perception. Forty percent (N = 4) of this sample initiated discussion on psychic abilities during the interview. Two
subjects reported "intuitively sensing other's thoughts" or "knowing what they were thinking" since NDE. Two other experiencers described an "awareness" or premonition they received during NDE that they "knew" to be accurate. The content of one individual's premonition was not revealed:

I can't tell you all of it. I think there's part of it that I'm not supposed to tell anybody . . . about an event that's coming and it might frighten some people and I can't see that it would serve any purpose. . . . It's another reason that I wanted to come back.

The other subject who had a premonition revealed it the day after his NDE to his doctor and although he was still quite ill he informed his doctor he "would be out of intensive care in five days, go home in two weeks and back to work in six weeks." The doctor refuted this due to the seriousness of his condition and stated he "would be in intensive care for two weeks, out of the hospital in six weeks and back to work in three to six months." This subject reported that he was "exactly correct and that the doctor said he couldn't believe the recovery I had made." This same subject also reported having a "feeling" in several situations that he could heal someone in the room if he would "touch" the painful area on their body. He acted on this the first time he felt it and "the knee stopped hurting." Since then he has had the "feeling" twice but did not act on it and "I've had a guilty feeling ever since." He explained his reluctance to act saying, "I couldn't believe Jesus would pick me to do that."
Discussion of the Findings

This section includes a discussion of the research findings and a comparison between the findings of this study and findings of related studies.

The data indicate that there are positive changes following NDE. This finding has been supported by many other researchers (Greyson, 1981; Greyson, 1983; Noyes & Kletti, 1976; Rosen, 1975; Noyes & Slymen, 1979; Grosso, 1981; Noyes, 1980; Sabom, 1982; Ring, 1980; Ring, 1984; Moody, 1975). Eighty percent of all answers on the Aftereffects Scale indicated that the ten subjects in this study perceived some degree of positive change in themselves following NDE. Any potentially negative change reported, such as "difficult to adjust afterward," "was constantly on my mind and hard to live in this world at first" were temporary and appeared to reflect the profound transcendent nature of this phenomenon. The most change occurred in two areas: the fear of death and the belief in life after death. Data pertaining to these questions tended to overlap due to the relatedness of the two ideas. The greatest amount of change was seen in the fear of death. A reduction in this fear after NDE has been reported by many researchers (Noyes, 1980; Noyes & Slyman, 1979; Noyes & Kletti, 1976; Moody, 1975; Ring, 1980; Ring, 1984; Sabom, 1982). All subjects in this study reported some decrease in this fear with 80 percent (N = 8) reporting a great decrease. The majority of subjects
reported that this fear had disappeared and no longer existed. They equated "death" with what they had experienced and several subjects indicated they looked forward to returning to this state of existence. No one, however, implied that anything should be done to hasten the return to this state. The lack of desire to expedite the time of their death was based on the increased value they now placed on living. Here the data again overlap; this time with data on life appreciation.

Belief in life after death was also closely associated with fear of death. Ninety percent (N = 9) of the sample not only believed but "knew" there was life after death and this obviously helped eliminate fear. In addition the "life" they experienced as they approached death was one of such indescribable love and peace that it could not be feared. Similarly, Ring (1980, 1984) found that NDE leads to the "unassailable conviction" in life after death.

A change in the value placed on material things was reported by all but one subject. Fifty percent (N = 5) reported some decrease and 40 percent (N = 4) reported a great decrease in this value. Ring (1980, 1984) also noted a reduction in materialism for his sample. Many of the subjects responded with surprise as they described this dramatic change in themselves. For some, "things" were still important, but as gifts to others or as mementos from loved ones.
The data pertaining to appreciation of life and appreciation of nature overlapped in many instances. These two concepts were discussed simultaneously by several subjects and a few began to describe their new-found appreciation of nature when asked about their appreciation of life. Interestingly, the frequency distribution of responses was identical for both questions. Six subjects (60%) reported a great increase in these areas, one (10%) reported some increase and three (30%) reported no change. Many examples were given to describe what and how they appreciate differently. Much of the focus was on the everyday aspects of experiencing life and nature. The subjects appeared pleased with these changes and, at times, surprised. Those reporting no change in this value presented the argument that they "appreciated these things before" their NDE.

In addition to the aftereffects designated in the research questions several other notable changes were consistently reported by the subjects in this study. These additional aftereffects were identified, labeled, and grouped into corresponding categories. Any aftereffect identified by four (40%) or more subjects was included in this section of additional findings. These findings, presented to illustrate additional dimensions to aftereffects resulting from NDE, fell into six categories: (1) Searching; (2) Finding a purpose; (3) Managing daily
life; (4) Feelings for others; (5) Feelings about suicide, and (6) Having psychic abilities. All six categories have been previously identified in other literature.

One-half \((N = 5)\) of the sample indicated they began searching for new meaning and understanding in their lives as well as more information about the experience. Ring (1984) found an increase in the "quest for meaning" in the lives of experiencers when he compared them to a control group.

Finding a purpose for their life was discussed by five individuals in the sample. They stated they now believed their life had a purpose even though some have yet to discover exactly what it is. This, however, did not appear to concern them. Three \((30\%)\) of the subjects had already found a new purpose for their lives and were presently involved and fully committed to its realization. Ring's (1980) subjects also reported a renewed purpose which most could not articulate but believed would be discovered in the course of seeking it.

Five \((50\%)\) of the sample indicated they were now employing new methods for managing their daily lives. Many of this group thought they were more patient, had a better perspective on life and less inclined to waste time on "unimportant trivialities." They also stated they lived more for the moment with less worry about yesterday and tomorrow.
Forty percent (N = 4) of the subjects reported a change in their feelings for others. They expressed renewed compassion, increased ability to love others and thought they were more forgiving, accepting and less judgmental of others as well as themselves. Ring's (1980) subjects displayed a marked increase on each of these items indicating a substantial effect on human relations.

The fifth category related to the subject's comments about suicide. Three (30%) of this sample, two of whom had attempted suicide just prior to NDE, made amazingly similar remarks. They all indicated that suicide "shouldn't" or "couldn't" be used to end a life. The "choice is not ours to make." The two suicide survivors were now firmly devoted to living out their earthly existence with renewed dedication. The data in this study support previous research on suicide and NDE. Ring and Franklin (1981) reported that despite the positive nature of NDE, it appeared to promote a strongly anti-suicide orientation among those reporting them.

Data related to psychic abilities were reported by three (30%) of the subjects following NDE. Talents for extrasensory perception, healing and precognition were divulged by this group. Two subjects received "awareness" of events to come. One individual refused to reveal her premonition to anyone, including this investigator, as "it might frighten some people." She also received a "sense"
that it should not be shared. The other premonition related to the speed and certainty of one subject's recovery. This was reported to have been realized exactly as he had predicted, despite his doctor's adamant, initial refusal to believe he could recover so quickly. This same subject also became "aware" of having healing abilities following NDE. On one occasion he reported acting on these "feelings to heal" by touching someone he knew who was in pain and "the pain went away." Two other times he refused to act on this "awareness" and has "felt guilty ever since." Ring's (1984) research found many examples of increased psychic abilities in experiencers.

All the above additional findings were volunteered by the subjects during the interview without any prodding from the investigator. It is impossible to know how many other subjects in this study might have contributed similar data if asked directly about these additional categories.

This study also asked if there was a relationship between the Weighted Core Experience Index (WCEI), which measures the depth of the experience, and the Aftereffects Scale. The scores of these two tests were compared using Spearman rank correlation coefficient. The correlation was not significant at the .05 level. Therefore, there was no evidence of a relationship between the Aftereffects Scale and the WCEI. Possible explanations of the absence of relationship might be the overlapping and arbitrary
weighting of the variables in the WCET. Although not directly correlated, interrelatedness of the two instruments was evident.

The last research question asked if prior knowledge of NDE was related to depth of experience. Ring (1980) found that those subjects without prior knowledge of NDE tended to have a deeper experience. This sample of ten had only one subject with prior knowledge of NDE and, therefore, this comparison was inappropriate.
CHAPTER V
SUMMARY, IMPLICATIONS AND RECOMMENDATIONS

Summary
The purpose of this study was to examine the aftereffects of near-death experience. This event was defined as the experience of an individual who has come close to death for any reason and subsequently realized any or all of the phenomena in the Weighted Core Experience Index (WCEI).

Seven research questions were explored in this study. The first five questions addressed specific aftereffects of near-death experience (NDE) and assessed the amount of personal change perceived by the subjects as a result of NDE. These items examined were related to subjective changes in the following areas: 1) appreciation of life; 2) appreciation of the beauty of nature; 3) fear of death; 4) value placed on material things; 5) belief in life after death. The remaining two questions focused on relations in the depth of NDE to aftereffects and to the depth of NDE to prior knowledge about NDE.

The sample consisted of four men and six women between the ages of twenty-two and 72 years. The near death experiences of the subjects occurred between two and 15
years ago and resulted from illness, accident or suicide. All of the sample were white, of Christian faith, and college educated. They were non-institutionalized and fully recovered from the conditions that precipitated NDE. The sample was secured by the snowball sampling method and a local support group sponsored by the International Association of Near-Death Studies (IANDS). Each subject participated in a tape-recorded interview which took approximately one hour. The majority of these interviews took place in home settings of the subjects.

The Weighted Core Experience Index (WCEI) (Ring, 1980) was used to measure the depth of each subject's experience. The information for this index was gathered during the semi-structured interview. The range of possible scores for the WCEI was 0 (indicating no experience) to 29 (indicating the deepest possible experience. This sample scored between 2 and 20 with a mean of 12.5. After being asked to describe their experience, subjects were then asked five specific questions about changes they may or may not have realized as a result of NDE. These questions were from the Aftereffects Scale, an instrument developed by this investigator to measure the degree of change each subject perceived in themselves as a result of NDE. The range of possible scores for the Aftereffects Scale was 5 (indicating the greatest amount of change in a negative direction) to 25 (indicating the greatest amount of change
in a positive direction. This sample scored between 16 and 25 with a mean of 22.3.

The data collected were categorized and reported according to the seven research questions. The data strongly supported an increase in positive changes following NDE. The two most remarkable changes were in the fear of death and belief in life after death. All subjects reported some degree of decrease in fear of death and 80 percent (N = 8) reported a great decrease. Ninety percent (N = 9) of the sample also reported an increase in belief in life after death. They took this concept one step further, however, and specifically said that now they "knew" there was life after death.

All but one subject reported a decrease in the value they placed on material things. Many subjects expressed surprise at this change in themselves. The continued importance of some "things" was now related to pleasure in giving them to others or as reminders of a loved one. An increased appreciation of life and the beauty of nature was also reported by 70 percent (N = 7) of the sample.

The WCEI scores indicated that 9 (90%) of the subjects reported having strong feelings of peace and painlessness during NDE. Encountering a presence or hearing a voice during NDE was also reported by 90 percent (N = 9) of the sample. Eight (80%) of the subjects reported seeing a bright light and 60% (N = 6) had an out-of-body experience during NDE.
The Aftereffects Scale scores indicated many positive changes in values following NDE for the subjects as a whole. One individual received a score of 25, the highest possible score, three subjects scored 24 and three subjects scored 23.

In attempting to relate the WCEI to the Aftereffects Scale the Spearman rank correlation test was employed. The correlation was not significant, thus indicating no evidence of relationship between the WCEI and the Aftereffects Scale scores. Since only one of the subjects had prior knowledge of NDE, the last research question which looked at the relationship of prior knowledge to depth of experience was not appropriate.

The subjects consistently included many other aftereffects not specifically requested by this study. These were considered pertinent due to the reoccurring themes and added dimension they represented. These additional aftereffects were grouped into corresponding categories, and any aftereffect reported by 4 (40%) or more of the subjects was included in this study. This supplemental data resulted in six categories: 1) Searching 2) Finding a Purpose; 3) Managing Daily Life; 4) Feelings for Others; 5) Feelings About Suicide; and 7) Having Psychic Abilities.

Many subjects were searching for more information about NDE and its implications. Several felt they now had a
purpose and were either patiently waiting to see what it was or actively engaged in its realization. Many indicated they now managed their daily lives differently, worrying less, being more patient and not in such a hurry. Feelings for others appeared to increase due to renewed compassion, increased ability to love, be forgiving and be more accepting of others. Those who initiated discussion on suicide all indicated they now had the strong conviction that suicide should not be an option to life's problems; that the choice "was not ours to make." Increase in psychic abilities was reported by several subjects and included such skills as extrasensory perception, healing and precognition.

Implications

Implications for this study are made with some reservations due to the sample size, method of sample selection, data collection, and the use of the Aftereffects Scale which was developed by the investigator for use in this study. In addition, the researcher recognizes that the time interval between the subject's NDE and this study may have included other life events that contributed to the reported aftereffects. Nevertheless, it is also recognized that NDE may have been an initiating factor in any change process.
Nursing philosophy has traditionally viewed man from a holistic perspective, stressing the integration of the body, mind and spirit when planning and implementing nursing care. The body has long been a major area of focus. The role of the mind, as epitomized in such concepts as stress, coping and adaptation, has recently been included in wellness and preventive health maintenance. Little attention, however, has been given to the spiritual expression of man. NDE represents an opportunity for nursing to incorporate the spiritual dimension into holistic health care. In addition, caregivers can confirm and categorize the personal transformations in those individuals with NDE. The intimate sharing that occurs between experiencer and confidant can be both therapeutic for the experiencer and inspiring to the listener. How then can nursing enter the arena of near-death experience and be more aware of the valuable additional service it can perform? Many nurses appear to be fascinated with learning more about NDE, but some still express utter disbelief that it actually does occur (Oakes, 1981).

As mentioned previously, NDE has not been investigated in nursing literature from a theoretical perspective or as it pertains to holistic health, death and dying, or gerontological nursing. Critical care nursing literature indicates that some nurses have begun to study NDE with a
focus on the out-of-body component (Sommers, 1985). No nursing studies have thus far focused on the transformative aspects of NDE or its potential for influencing profound changes in the lives of experiencers. Obviously more information must be made available to the nursing profession through nursing journals and nursing education. When death and dying concepts are presented in the nursing curriculum, it would be appropriate to include NDE as a most pertinent component. In addition, when the holistic philosophy of nursing is first introduced to nursing students, near-death experiences could be offered as an example of how this total care concept can indeed be actualized. Inservice education programs would be most suitable for updating current hospital staff on this increasingly pervasive event.

Once the nursing community becomes knowledgeable about NDE and its transformative aspects, numerous applications of this information present themselves. According to Ring (1980), the applications tend to fall into three categories: (1) those aimed at individuals who are close to death, including those who are potentially suicidal; (2) those that pertain to individuals who have recently survived NDE; and (3) those directed toward individuals who have not been close to death themselves, but who may be concerned with another's actual or possible death—or their own.
Individuals close to death due to illness or suicide.

Personal accounts of experiencers have been shown to reduce the fear of death in terminally ill individuals (Ring, 1980). Examples of how this information could be disseminated is through specially prepared tape recordings or actual visits by those who have had near-death experience. In addition, nurses could educate the individual and family, when appropriate, about what some people have experienced when they were close to death. These methods have definite implications for hospice nursing, bereavement counseling, terminally ill nursing units, nursing homes and home health care. This is not to imply that such procedures in and of themselves would dissolve all fears or lessen the pain of dying but, as Ring (1980) suggested, it might help the dying person become better prepared for death and approach it with heightened awareness of its transcendent possibilities. In addition, many researchers (Ring, 1980; 1984; Sabom, 1982; Moody, 1975; Rosen, 1975) have shown that exposure to near-death research findings can apparently be helpful in reducing the likelihood of suicide. Ring (1980) and Moody (1975) attribute this effect to the fact that experiencers all gave the same message, that a "successful" suicide would probably regret his action.
Near-death experiencers. Nurses could play a major role in providing support to near-death experiencers. Following NDE, many individuals are preoccupied with the dimensions and implications of their particular experience and may or may not be ready to discuss it with anyone. Some, however, are immediately anxious to tell anyone who will listen. It is most important to be sensitive to the individual needs of each person. Opinions differed on whether a person, once recovered, should be asked if he had a near-death experience. Because this is such a personal and possibly transforming event, the safest avenue of approach seems to be to make a general statement to the effect that some people have interesting experiences when they are very ill or their heart stops beating, and if anything like that happened it could gladly be discussed. If no experience occurred, the remark may serve as an opening for some education on NDE. Providing support, if the person did have NDE, would be in the form of reassurance that these same things have happened to many others before, they are not "going crazy," that it is sometimes hard to adjust to coming back at first and that this can be discussed again if they would like. The need for this compassionate, knowledgeable approach to the possibility of aftereffects cannot be overemphasized, as many experiencers commented on its absence. Being prepared to give uninterrupted time when the experiencer is ready to
talk is essential. Some family members are reluctant to believe the person's "story" and the nurse can serve to "back up" their account with professional legitimacy. Providing literature to the individual and the family for later perusal is beneficial. When the initial focus of the person is centered almost entirely on their recent near-death experience, patience is required for teaching of nursing-related measures. Often, as is the case in Columbus, Ohio, there is a local chapter of the International Association for Near-Death Studies, which can function as a peer support group for near-death experiencers and their families as well as a source of further information about the experience. Individuals should also be cautioned against making major life-style changes immediately after NDE, such as giving away all material things which no longer seem to hold any importance. Attitudes of the nurse that would be helpful are being non-judgmental, open minded, non-coersive, impartial and attentive. According to Oakes (1984), the nursing literature is void of background information and directions concerning the planning of post-NDE care and specific ways to evaluate if what was implemented (during resuscitation or immediately afterwards) altered the patient's perceptions of NDE. She further states that nurses who practice holistic nursing care should be excited about meeting this challenge. Future NDE survivors may
know specific therapeutic regimens that include definite nursing care plans for dealing with these phenomena and their aftereffects, such as is now available for other areas of nursing care.

**Individuals concerned with death.** The third category of implications for NDE knowledge is directed towards individuals concerned with death, which could actually mean most of us at one time or another. In fact, the majority of those who learn about NDE are neither terminally ill nor near-death experiencers. Not everyone can have the experience obviously, but everyone can benefit from it if they so choose. One does not have to nearly die to experience the "seed of spiritual insight". (Ring, 1980). Experiences of others who have known a different reality or our own spiritual journeys can give us insight into what is truly meaningful or important in life.

While the current wave of research has focused on NDE as the inducement for this transcendent experience, what occurs during NDE has nothing inherently to do with death or with the transition into death (Ring, 1984). Coming close to death appears to be one of the very reliable triggers that sets off this kind of experience. Holographic theory supports a particular mechanism in the brain that probes the doorway to the "implicate order of the holographic reality." (Pribram, 1978). NDE, which is
analogous to a mystical experience, is thought to tap into the holographic reality, also referred to as a higher level of consciousness. The same phenomenon associated with NDE have been reported for hundreds of years by psychologists and parapsychologists. These events have occurred spontaneously, during times of extreme stress or through self-induced states of meditation. Therefore, it would appear that near-death experiencers are not a unique group but have each used the common path of being near death as the catalyst for experiencing this higher level of consciousness known as holographic reality.

By focusing the attention away from the individual experiencer and the events that transpired in a single occurrence the full significance of NDE may be realized. Attention instead should be aimed at the aftereffects and evidence of transformation in the lives of both the near-death experiencers and those who reached similar new beliefs through other means. Transcendent experiences in general have been found to be very wide-spread and representatively increasing in number. (Ferguson, 1980; Russel, 1983). This phenomenon has been described with increasing frequency as "an evolutionary leap in consciousness" (Ferguson, 1980). Ring (1984) suggests that entering the holographic domain such as occurs in NDE, may permanently transform the nervous system so as to activate latent spiritual potentials.
These revolutionarily new views of holographic reality, and how it applies to near-death experiences, as well as other mystical encounters, serve to explain some of the unanswered questions about NDE but tend to raise many more implications. Ring (1984), for example, asked why these transcendent experiences were occurring with such increasing tendency and speculated, as did some of his research sample, that the circumstances were right in the world for mankind now to come to grips with the possibility of global death and disaster. He further speculated that a global shift in consciousness might be necessary to avert disaster. Likewise, the most profound aftereffect in experiencers was loss of the fear of death. Liberated from this primary fear, experiencers and students of the experience become free to realize life as a gift and to live naturally in love. In order to take the implications of the research into NDE to its farthest point, we are each compelled to face the possibility of a higher spiritual dimension. This not only has implications for the moment of our death but for the moments of our lives.

**Recommendations**

1. Replicate this study using a larger sample size.
2. Revise the Aftereffects Scale to make it more sensitive to differences.
3. Conduct a similar study having the experiencer's significant other document the subject's personality and values, both before and after NDE, thus lending more objectivity to the research on aftereffects.

4. Study the aftereffects of NDE on individuals in other countries assessing for cultural differences.

5. Poll nurses for their reactions to anecdotal accounts of NDE and evaluate for preconceived ideas.

6. Conduct a longitudinal study beginning within the first year of subjects NDE and document changes occurring over a ten-year period.
APPENDIX A

APPROVAL FROM THE OHIO STATE UNIVERSITY

BEHAVIORAL AND SOCIAL SCIENCES

HUMAN SUBJECTS REVIEW COMMITTEE
BEHAVIORAL AND SOCIAL SCIENCES
HUMAN SUBJECT REVIEW COMMITTEE
THE OHIO STATE UNIVERSITY

Research Involving Human Subjects

ACTION OF THE REVIEW COMMITTEE

With regard to the employment of human subjects in the proposed research protocol:

85B0075  AFTERREFFECTS OF THE NEAR-DEATH EXPERIENCE,
Mary Ann Ruffing-Rahal, Elaine Gomez, Nursing

THE BEHAVIORAL AND SOCIAL SCIENCES REVIEW COMMITTEE HAS TAKEN THE FOLLOWING ACTION:

____ APPROVED  ____ DISAPPROVED

X  APPROVED WITH CONDITIONS*  ____ WAIVER OF WRITTEN CONSENT GRANTED

* Conditions stated by the Committee have been met by the Investigator and, therefore, the protocol is approved.

It is the responsibility of the principal investigator to retain a copy of each signed consent form for at least four (4) years beyond the termination of the subject's participation in the proposed activity. Should the principal investigator leave the University, signed consent forms are to be transferred to the Human Subject Review Committee for the required retention period. This application has been approved for the period of one year. You are reminded that you must promptly report any problems to the Review Committee, and that no procedural changes may be made without prior review and approval. You are also reminded that the identity of the research participants must be kept confidential.

Date  May 24, 1985  Signed  

(Chairperson)

HS-025B (Rev. 3/85)
APPENDIX B

WEIGHTED CORE EXPERIENCE INDEX (RING, 1980)
WEIGHTED CORE EXPERIENCE INDEX (RING, 1980)

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Subjective sense of being dead</td>
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</tr>
<tr>
<td>Feeling of peace, painlessness, pleasantness, etc.</td>
<td>2*</td>
</tr>
<tr>
<td>Sense of bodily separation</td>
<td>2*</td>
</tr>
<tr>
<td>Sense of entering a dark region</td>
<td>2*</td>
</tr>
<tr>
<td>Encountering a presence/hearing a voice</td>
<td>3</td>
</tr>
<tr>
<td>Taking stock of one's life</td>
<td>3</td>
</tr>
<tr>
<td>Seeing or being enveloped in light</td>
<td>2</td>
</tr>
<tr>
<td>Seeing beautiful colors</td>
<td>1</td>
</tr>
<tr>
<td>Entering into the light</td>
<td>4</td>
</tr>
<tr>
<td>Encountering visible &quot;spirits&quot;</td>
<td>3</td>
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</table>

* Individuals could be assigned a score of either 1 or 2 on these components, if present. The rules for scoring are as follows: (1) for the feelings cluster, assign 2 if the feelings were very strong (as evidenced on tape recorded interview), otherwise 1; (2) for the sense of bodily separation assign 2 if a clear out-of-body experience was described, otherwise 1; (3) for entering into a dark region, assign 2 if perception was accompanied by a sense of movement, otherwise 1. A given score would then be multiplied by the appropriate weight for that Component, resulting in a weighted score of either 2 or 4 for that Component. All nonasterisked Components were scored either present (1) or absent (0).
APPENDIX C

AFTEREFFECTS SCALE
AFTEREFFECTS SCALE

Since your near-death experience:

1. My appreciation for life has

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<th>Increased</th>
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2. My appreciation for the beauty of nature has

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3. My fear of death has

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4. The value I place on material things has

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<tr>
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5. My belief in life-after-death has

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<tr>
<td>Score</td>
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<td>5</td>
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</tbody>
</table>
APPENDIX D

INTERVIEW WITH EXPERIENCERS
INTERVIEW

As we discussed previously on the telephone you came very close to death. Can you please tell me how this came about? (Let individual narrate this in his own words probing as necessary for date, location, circumstances).

Sometimes people report experiencing certain things during an incident like yours. Sometimes these things are a little strange or puzzling and they hesitate to discuss it. Please don't worry about this in talking with me. I want you to feel free to tell me anything you can remember whether it makes sense or not. Do you remember being aware of anything while you _____________________________? (specific situation of individual). Could you describe this for me? (Let individual know I realize this may be difficult to put into words. Probe as necessary for any feelings, perceptions, imagery, visions, etc.).

Now I'd like to ask you certain more specific questions about your experience. (For those who report little awareness during their episode ask if anything I ask now rings a bell.)

(Modify this section as necessary, depending on what has previously been said.)

1. Was this experience difficult to put into words?
   (if yes) What was it about the experience that makes it so hard to communicate?
2. When this episode occurred, did you think you were
dying, close to death, or actually dead?
3. What were your feelings and sensations during this
episode?
4. Did you hear any noises or unusual sounds during
this episode?
5. Did you at anytime feel as though you were
traveling or moving? (If appropriate) What was
this experience like? Was it associated in any way
with the noise (sound) you described before?
6. Did you at anytime during this experience feel that
you were somehow separate from your own physical
body? During this time were you ever aware of
seeing your physical body? (If appropriate ask in
turn:) Could you describe this experience for me?
When you were outside your own body, where were
you? Did you have another body and if so, was
there any kind of connection between yourself and
your physical body?
7. Did you have a sense of entering a dark region
during this episode?
8. During this time did you encounter other
individuals living or dead? (If yes:) Who were
they? What happened when you met them? Did they
communicate to you? What? How? Why do you think
they communicated what they did? How did you feel in their presence?

9. Did you at anytime experience a light, glow, or illumination? (If yes:) Did this "light" communicate anything to you? What did you think this light was? Did you see any religious figures; (if so who?) any frightening spirits such as demons or the devil?

10. Did scenes from your life ever appear to you as mental images or memories? (If so:) What was it like? How did it feel? Did you feel you learned anything from this experience? If so, what?

11. At any time did you feel you were approaching some kind of boundary or point of no return? (If so:) Can you describe it to me? Do you have any ideas what this boundary meant?

12. Do you think this experience has changed you in any way? (If so:) How? (If these have not been mentioned:) I would like to ask you about some specific changes and ask you to rate the amount of change if any you have experienced as a result of this near-death experience.

A. Has your appreciation for life changed? (If so:) Please explain. (Show 3 x 5 card with this question and scale without scores on it from the Aftereffects Scale and say:) Please
read this question and tell me which response best describes your experience.

B. Has your appreciation for the beauty of nature changed? (If so:) Please explain (show 3 x 5 card with this question and follow previous instructions).

C. Has you fear of death changed? (If so:) Please explain (show 3 x 5 card with this question and follow above directions).

D. Has your value of material things changed? (If so:) Please explain. (Show 3 x 5 card with this question and follow previous instructions.)

E. Has your belief in life after death changed? (If so:) Please explain. (Show 3 x 5 card with this question and follow previous instructions.)

(The answers chosen for these five questions will be recorded by the investigator onto the Demographic Data Format)

And finally before this happened to you had you ever heard about this kind of an experience? (If so:) Please explain.
Well, ______________ (name) that's all the questions I have. Do you have any you would like to ask me? (Answer as thoroughly as appropriate and necessary.)

I want to thank you very much for your willingness to help in this study. Your comments are greatly appreciated and if you are interested I'd be glad to send you a brief report of these research findings when my research is completed. Would you be interested in this? A separate card will be provided for the subject to fill out name and address which will be kept separate from the demographic data.

If you would wish to get in touch with me again for any reason this is my name, phone number and address. Thank you again for sharing your experience with me.
APPENDIX E

DEMOGRAPHIC DATA FORMAT
Demographic Data Format

Subject I.D. #
Age:
Sex:
Religious denomination:
Present marital status:
Occupation:
  At time of near-death experience:
  Presently:
Education:
  Last year of formal education completed:
Race:
Ethnic background:
Major illnesses since near-death experience:

Aftereffects Scale Ratings
1.
2.
3.
4.
5.
APPENDIX F

CONSENT FOR PARTICIPATION IN
SOCIAL AND BEHAVIOR RESEARCH
CONSENT FOR PARTICIPATION IN
SOCIAL AND BEHAVIOR RESEARCH

I consent to participating in (or my child's participation in) research entitled:

________________________
Aftereffects of the Near-Death Experience

________________________
Mary Ann Ruffing-Rahal, Ph.D. or his/her
(Principal Investigator)

authorized representative has explained the purpose of the study, the procedures to be followed, and the expected duration of my (my child's) participation. Possible benefits of the study have been described as have alternative procedures, if such procedures are applicable and available.

I acknowledge that I have had the opportunity to obtain additional information regarding the study and that any questions I have raised have been answered to my full satisfaction. Further, I understand that I am (my child is) free to withdraw consent at any time and to discontinue participation in the study without prejudice to me (my child). The information obtained from me (my child) will remain confidential unless I specifically agree otherwise by placing my initials here ________.

Finally, I acknowledge that I have read and fully understand the consent form. I sign it freely and voluntarily. A copy has been given to me.

Date:____________________ Signed:____________________

(Participant)

Signed:____________________

Principal Investigator
or his/her Authorized Representative

Signed:____________________

(Person Authorized to Consent for Participant - If Required)

Witness:____________________
REFERENCES


