2004

The impact of cognitive development on compassion fatigue in emergency response personnel

Aaron Hugh Jackson
William & Mary - School of Education

Follow this and additional works at: https://scholarworks.wm.edu/etd
Part of the Industrial and Organizational Psychology Commons, and the Student Counseling and Personnel Services Commons

Recommended Citation
https://dx.doi.org/doi:10.25774/w4-qavm-q625

This Dissertation is brought to you for free and open access by the Theses, Dissertations, & Master Projects at W&M ScholarWorks. It has been accepted for inclusion in Dissertations, Theses, and Masters Projects by an authorized administrator of W&M ScholarWorks. For more information, please contact scholarworks@wm.edu.
THE IMPACT OF COGNITIVE DEVELOPMENT ON COMPASSION FATIGUE IN EMERGENCY RESPONSE PERSONNEL

A DISSERTATION PRESENTED TO THE FACULTY AND STAFF OF THE COLLEGE OF WILLIAM & MARY WILLIAMSBURG, VIRGINIA

SUBMITTED IN PARTIAL FULFILLMENT FOR THE DEGREE DOCTOR OF PHILOSOPHY

MAY 7, 2004

AARON HUGH JACKSON, III
The Impact of Cognitive Development on Compassion Fatigue in Emergency Response Personnel

A Dissertation Presented to the Faculty and Staff of
The College of William & Mary
School of Education
Williamsburg, Virginia

For the degree
Doctor of Philosophy

7 May 2004

Aaron Hugh Jackson, MA
Doctoral Candidate

Dr. Charles R. McAdams, III, Chair

Dr. Victoria A. Foster, Committee Member

Dr. Charles F. Gressard, Committee Member

Dr. David Leslie, Committee Member
Acknowledgements

I would like to express my sincere thanks to a number of people, without whom this dissertation and my degree would not be possible. I wish to thank, first and foremost, my family, especially my mother, Frances Elizabeth Barefoot Jackson, for their unending support for me in my educational endeavors. I truly appreciate all of your sacrifices and your patience as well. I also wish to express my gratitude to my advisor, Dr. Rip McAdams, for his time and guidance during my doctoral program. His dedication and regard for students and our profession is impressive and should serve as a model for faculty members everywhere.

I would also like to express my thanks to my dissertation committee, who in addition to Dr. Rip McAdams, were Dr. Victoria Foster, Dr. Rick Gressard, and Dr. David Leslie. I truly appreciate your time, flexibility, and guidance.

This experience would have been as interesting were it not for the people who took this journey with me. Chris Sacco-Bene, Denny Frank, and Tim Grothaus have truly been inspirations to me in their own special way and I truly appreciate all that each of you taught me.

To my fiancé, Jayna Rae Pilcher, I wish there was a way I could show my appreciation for all of your patience and support, but words cannot fully express my gratitude.

I would like to dedicate this dissertation to my father, Aaron H. “Buddy” Jackson, who passed away in 1999. He spent his life in the emergency services and always sought to keep the citizens of North Carolina safe in many ways. He was the first to take me to the local volunteer fire department when I was a child and instilled in me the need to give back to the community. For that I am forever grateful.
Abstract

Those who work in the emergency response professions are constantly exposed to the stress and trauma of others in their day-to-day work environment. As a result, emergency response professionals may face consequences of working in such a demanding profession. One such consequence has been identified as Compassion Fatigue (Figley, 2002). Compassion Fatigue is best described as “paying the costs of caring”. Since the identification of the construct of compassion fatigue, many approaches have been utilized in an effort to address this problem. While the various approaches have achieved some level of success, they are open to criticism on a number of levels. Because of these vulnerabilities, a new approach to treating compassion fatigue is necessary. This new approach to treating this serious problem is possible through cognitive developmental theory. This research project proposed that higher levels of cognitive development, more specifically, moral development, would have a significant impact on the construct of compassion fatigue. Significant findings show that higher levels of development do indeed impact compassion fatigue. Other interesting and significant findings point the way for further research and intervention in an effort to more fully facilitate growth and development in emergency response personnel so that the effects of compassion fatigue are lessened and professionals are better equipped to perform their duties in an effective manner. Implications for practice and future research are discussed.
TABLE OF CONTENTS

Chapter I. A Cognitive Developmental Approach -

<table>
<thead>
<tr>
<th>TABLE OF CONTENTS</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRODUCTION</td>
<td>8</td>
</tr>
<tr>
<td>Statement of Purpose</td>
<td>8</td>
</tr>
<tr>
<td>Work of Emergency Response Professionals</td>
<td>9</td>
</tr>
<tr>
<td>Compassion Fatigue</td>
<td>12</td>
</tr>
<tr>
<td>Impact of Compassion Fatigue on Emergency Response Professionals</td>
<td>13</td>
</tr>
<tr>
<td>Approaches to Compassion Fatigue</td>
<td>14</td>
</tr>
<tr>
<td>Current Approaches</td>
<td>14</td>
</tr>
<tr>
<td>Didactic Approach</td>
<td>14</td>
</tr>
<tr>
<td>Humor</td>
<td>15</td>
</tr>
<tr>
<td>Bio-physiological Approach</td>
<td>17</td>
</tr>
<tr>
<td>Rest and Respite Approaches</td>
<td>18</td>
</tr>
<tr>
<td>Desensitization</td>
<td>18</td>
</tr>
<tr>
<td>Demobilizations</td>
<td>19</td>
</tr>
<tr>
<td>General Approaches</td>
<td>19</td>
</tr>
<tr>
<td>Organizational Approaches</td>
<td>20</td>
</tr>
<tr>
<td>Justification of the Study</td>
<td>20</td>
</tr>
<tr>
<td>Purpose of the Study</td>
<td>24</td>
</tr>
<tr>
<td>Cognitive Development Theory</td>
<td>25</td>
</tr>
<tr>
<td>Definition of Terms</td>
<td>27</td>
</tr>
<tr>
<td>Compassion Fatigue</td>
<td>27</td>
</tr>
<tr>
<td>Compassion Satisfaction</td>
<td>27</td>
</tr>
<tr>
<td>Moral Development</td>
<td>27</td>
</tr>
<tr>
<td>Emergency Response Professional</td>
<td>28</td>
</tr>
<tr>
<td>Methodology and Research Design</td>
<td>28</td>
</tr>
<tr>
<td>Sampling and Data Gathering</td>
<td>28</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>28</td>
</tr>
<tr>
<td>Limitations of the Study</td>
<td>29</td>
</tr>
<tr>
<td>Threats to Internal Validity</td>
<td>29</td>
</tr>
<tr>
<td>Threats to External Validity</td>
<td>29</td>
</tr>
<tr>
<td>Summary</td>
<td>30</td>
</tr>
<tr>
<td>II. LITERATURE REVIEW</td>
<td>31</td>
</tr>
<tr>
<td>Compassion Fatigue</td>
<td>31</td>
</tr>
<tr>
<td>Compassion Satisfaction</td>
<td>32</td>
</tr>
<tr>
<td>Burnout</td>
<td>33</td>
</tr>
<tr>
<td>Countertransference</td>
<td>34</td>
</tr>
<tr>
<td>Empathy</td>
<td>35</td>
</tr>
<tr>
<td>Compassion Fatigue versus Burn Out</td>
<td>36</td>
</tr>
<tr>
<td>Impact of Compassion Fatigue</td>
<td>38</td>
</tr>
<tr>
<td>Research on Compassion Fatigue in the Helping Professions</td>
<td>40</td>
</tr>
</tbody>
</table>

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Cognitive Development .................................................. 51
  Basic Assumptions of Cognitive Development Theory .................. 51
  Promoting Cognitive Development through Deliberate Psychological Education .......................... 56
  Cognitive Development and Coping .................................. 57
Kohlberg's Moral Development ........................................ 59
  Stages of Moral Development ......................................... 61
  Higher is Better ............................................................ 64
  A Neo-Kolbergian Approach to Moral Development .................. 65
  Moral Development of Compassion Fatigue .......................... 70
Summary ................................................................. 77

III. METHODOLOGY AND PROCEDURES .................................. 78
  Population ...................................................................... 78
  Sampling and Data Gathering .......................................... 78
  Instrumentation ............................................................ 79
    Informed Consent ....................................................... 79
    Demographics ............................................................ 79
    Pro-Qol-R-III ............................................................. 80
    Defining Issues Test .................................................... 81
  Research Design .......................................................... 87
  Formal Research Hypotheses .......................................... 88
  Investigative Hypotheses ............................................... 88
  Additional Question ...................................................... 88
  Implications .................................................................. 89
  Summary ...................................................................... 90

IV. RESULTS ................................................................. 91
  Sampling & Data Collection ............................................. 91
    Survey Research Data Collection ..................................... 91
    Personal Presentations and Data Collection ......................... 91
    Total Number of Responses ............................................ 92
  Demographics ................................................................ 92
    Age ........................................................................ 92
    Education .................................................................. 93
    Years of Experience .................................................... 94
    Race/Ethnicity ........................................................... 95
    Employment Status .................................................... 96
    Gender ...................................................................... 97
    Perceived Support ....................................................... 97
  Demographic Summary ................................................... 98
  Instrumentation ............................................................ 100
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table Number</th>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Age of Respondents</td>
<td>93</td>
</tr>
<tr>
<td>4.2</td>
<td>Valid Education of Respondents</td>
<td>94</td>
</tr>
<tr>
<td>4.3</td>
<td>Respondents’ Years of Experience</td>
<td>95</td>
</tr>
<tr>
<td>4.4</td>
<td>Race/Ethnicity of Respondents</td>
<td>96</td>
</tr>
<tr>
<td>4.5</td>
<td>Employment Status of Respondents</td>
<td>96</td>
</tr>
<tr>
<td>4.6</td>
<td>Gender of Respondents</td>
<td>97</td>
</tr>
<tr>
<td>4.7</td>
<td>Perceived Organizational Support</td>
<td>98</td>
</tr>
<tr>
<td>4.8</td>
<td>P-Scores</td>
<td>102</td>
</tr>
<tr>
<td>4.9</td>
<td>Modal Stage of Moral Development</td>
<td>104</td>
</tr>
<tr>
<td>4.10</td>
<td>Risk for Compassion Fatigue</td>
<td>105</td>
</tr>
<tr>
<td>4.11</td>
<td>Risk for Compassion Satisfaction</td>
<td>105</td>
</tr>
<tr>
<td>4.12</td>
<td>Risk for Burnout</td>
<td>106</td>
</tr>
<tr>
<td>4.13</td>
<td>Hypotheses Correlations</td>
<td>107</td>
</tr>
<tr>
<td>4.14</td>
<td>Compassion Fatigue and Perceived Support</td>
<td>109</td>
</tr>
</tbody>
</table>
CHAPTER ONE
INTRODUCTION

Statement of the Problem

There are times when members of the public must reach out for help from those individuals with special training and skills. These individuals are called in to handle situations and events that members of the general public are not equipped to handle. Often times these events are horrific, disastrous, traumatic events. While we as individuals face these traumatic, critical incidents occasionally, those we turn to for help often see these stressful events on a daily, continuous basis as part of their day-to-day job demands. Emergency response personnel perform demanding job requirements in a sustained manner often for years at a time. This study examined a new approach to understanding the challenges faced by these emergency response personnel. an approach to training of emergency response personnel, based on cognitive developmental theory, is implicated as a new way to meet the challenges of their demanding profession.

The terrorist attacks of September 11, 2001, more than any other event in recent history, have brought our attention not only to the needs of crisis victims and their families, but to the needs of emergency care providers as well. These emergency care providers are defined by Paton and Violanti (1996) as people serving in “critical occupations.” They define critical occupations as those held by firefighters, emergency medical technicians, paramedics, and law enforcement personnel. For the purposes of this study, the focus will be on emergency medical technicians, paramedics, and first responders. Collectively, this population will be referred to as emergency response personnel.
The members of emergency response professions not only must handle the demands and stressors which are typical of working life in today’s work environment; they also must deal with highly stressful situations or emotionally overwhelming traumatic events in the course of performing their professional job requirements. Members of this profession also play a critical and vital role in protecting others and promoting the health and recovery of victims of disaster and traumatic events. They are set aside from other occupations in regards to the frequency and degree to which they are involved with traumatic events. It has been suggested that constant exposure to trauma impacts the emergency response worker’s very own health and well-being (Paton & Violanti, 1996).

The Work of Emergency Response Professionals

At this point, a more specific, detailed account of constant working conditions faced by emergency response personnel is necessary. The specific job demands unique to this profession and have been specified and detailed by several researchers. Mitchell and Dyregrove (1995), Figley (2002a and 2002b), Miller (1995), Paton and Violanti (1996), Occupational Outlook Handbook (2003), Collins and Long (2003), Waters (2002), Blair and Ramones (1996), and Beaton, Murphy, Johnson, Pike, and Cornell (1999) all have offered insight into the stressful, critical situations these individuals must function in on a daily basis. Emergency response personnel work in an environment wrought with extraordinary and persistent demands that are often cumulative in nature. Emergency response personnel respond to disasters and events that may produce a variety of psychological, social, and physiological reactions. More specifically, they often face threats to their own safety as well as threats to those who work with them. Examples of
these conditions include handling the bodies of the deceased, working with severely injured children and adults, responding to gruesome incidents and completed suicides, and attending to victims of mass casualty/fatality disasters. The routine performance of Cardiopulmonary Resuscitation is reported by EMS personnel as a highly stressful job requirement – a situation where life truly hangs in the balance. Research points out that, when the victim is a child, these psychological and physiological reactions in EMS personnel will be more intense (Blair & Ramones, 1996).

Galloucis, Silverman, and Francek (2000) describe the typical work environment of a large urban emergency response unit. For example, the Chicago Fire Department’s 59 ambulance units respond to more than 3,700 calls a year. Chicago paramedics can expect to respond to 11 calls per twenty-four hour shift. This number doubles per shift when the unit is located in a high crime area of the city. Paramedical unit’s response to violent traumas almost doubled from 1982 to 1990 in Chicago.

Emergency response personnel may work in the hospital setting or in the field. They often serve their victims in the street, entangled in vehicle wreckage, and in dilapidated buildings. The deaths and injuries they witness are often sudden, messy, noisy, agonized, and undignified (Miller, 1995). They have to cope with blood, pain, ravaged bodies, and sickness in every shape and form (Paton & Violanti, 1996). Emergency workers are expected to rescue individuals trapped in crashed vehicles, to extricate people from fires, and to care for victims of assault. Working in an environment characterized by maimed bodies and disfigurement is a common occurrence for individuals in this profession. EMS workers consistently list infant death, child abuse, mass casualties, and high-rise fires as their most stressful calls to handle. Unpredictable,
ambiguous, and dangerous situations are commonplace in the emergency response professions. Often times, emergency responders have no idea of the nature of the situation until they arrive on the scene. The work is often unpredictable and requires that the worker be comfortable with the unexpected. Emergency response personnel must also deal with secondary dangers such as being bitten by pets, attacked by victims — usually because of mental illness or substance use (Blair & Ramones, 1996). The threat of exposure to caustic chemicals is a realistic possibility in this occupation. Natural disasters such as tornadoes, hurricanes, and flooding are often the source of great stress in emergency responders, especially if the natural disaster occurs in the workers own community. Emergency response personnel are at risk of exposure to life-threatening diseases such as Hepatitis and HIV/AIDS and to self-injury such as falling or back injuries as a result of lifting and moving victims (Collins & Long, 2003).

Another relevant aspect of the emergency response job is to consider the time and amount of exposure to these incidents. According to the US Department of Labor (2003), emergency response personnel can expect to work forty-five to fifty hours a week. These hours are often carried out in twelve-hour shifts. It is commonplace that EMT’s and paramedics can expect exposure to several traumatic incidents in a typical week or shift. As society becomes more complex, the frequency and intensity of this work will increase.

Collins and Long (2003) report that an additional challenge to rural emergency response personnel is that, in many instances, the victim and responder are familiar or well known by each other. Close relationships often complicate the situation for the responder, in that the victim, a friend or relative is often emotionally attached to the worker, and the level of care and concern is even higher.
Specific events which have recently required the large-scale mobilization of emergency response personnel include: the events of September 11, the crash of Flight 880, the Omagh (Northern Ireland) car bomb explosion, the Ash Wednesday Brush Fire Disaster (Australia), the Interstate 880 Freeway Collapse (Los Angeles), and any of the hurricanes which have battered the East Coast in the past decade and a half. It is easy to see the demands that are placed on emergency response personnel as a result of the nature of the work in which they are involved. This demanding work environment undoubtedly has an impact on these professionals. The next section explores one such impact.

Compassion Fatigue

Numerous researchers suggest that the very nature of emergency response work environment places emergency response personnel at risk for a condition referred to as “compassion fatigue”. Many other researchers have contributed to the understanding and conceptualization of the construct of compassion fatigue as well (Baird & Jenkins, 2003; Blair & Ramones, 1996; Collins & Long, 2002; Gentry, Baranowsky & Dunning, 1997; Jenkins & Baird, 2002; McCann & Pearlman, 1990; Paton & Violanti, 1996; Wee & Myers, 2003).

Compassion Fatigue has been generally defined as the “paying the costs of caring” by Figley (2002) and is related closely to the experiences of those individuals emotionally affected by the traumatic experiences of another person. Generically, this term is used to describe the various helper traumas by those in the helping professions. Other terms that have been related to this phenomenon are secondary traumatic stress, vicarious traumatization, and secondary victimization. Figley’s (2002) specific definition of compassion fatigue is as follows:
A state of tension and preoccupation with the individual or cumulative trauma of clients as manifested in one or more ways, such as: re-experiencing traumatic events, avoidance of reminders of the traumatic event, or persistent arousal, combined with the added effects of cumulative stress or burnout. It is the natural and consequent behaviors and emotions resulting from knowing about a traumatizing event experienced by a significant other resulting from helping or wanting to help a traumatized or suffering person.

Figley (1995, 2002) describes compassion fatigue as being heavily influenced by burnout, empathy, countertransference, and compassion satisfaction. Each of these aspects, and their relation to the whole construct of compassion fatigue are discussed in greater detail in the following chapter.

Impact of Compassion Fatigue on Emergency Response Personnel

Emergency Response Personnel will display the effects of Compassion Fatigue across many aspects of their lives. Researchers have elaborated on the personal, physiological, professional, and familial effects of this phenomenon (Figley, 2002; Galloucis, Silverman, & Francek, 2000; Gentry, Baranowski, & Dunning, 1997; Hildebrand, 1986; Mitchell & Dyregrove, 1995; Regeher, Goldberg, & Hughes, 2002; Weiss, Marmar, Metzler, & Ronfeldt, 1995). Personal manifestations may include somatic complaints or loss of motivation. Physiological manifestations may include high blood pressure and a weakened immune system. Professional manifestations may include a lack of trust in co-workers, and familial manifestations may include over-protectiveness and lack of communication. These resulting phenomena will be discussed at greater length in the following chapter. Given the personal, professional, physiological and familial impact that has been discussed, a number of treatment modalities have been developed with which to address compassion fatigue from a clinical perspective.
Approaches to Compassion Fatigue

Modalities in current use include didactic approaches, cathartic/ventilation approaches, trait approaches, bio-physiological approaches, rest/respite approaches and desensitization approaches. Some approaches offer a blend of several approaches and will be discussed in the next section.

Current Approaches

Didactic Approaches

Two treatment modalities that use didactic approaches are Critical Incident Stress Debriefing (Crawford & Flannery, 2002; Miller, 1995 and 1999; Wee, Mills & Kochler, 1999) and the Accelerated Recovery Program for Compassion Fatigue (Figley, 2002; Gentry, Barannowski & Dunning, 1997). Didactic approaches are methods that employ a largely educational approach to addressing the problem and suggest that the creation of an informed schema can provide preventative qualities when addressing traumatic experiences or events. These two approaches include some aspects of a cathartic-ventilation approach as well.

Critical Incident Stress Debriefing is a peer and clinician guided group approach to working with emergency response personnel who have been involved in a traumatic event. This approach is a 7-stage process that takes place within 48 hours of the traumatic event. The seven stages are described as follows. Stage 1 is the Introduction Phase. In this phase, group leaders are introduced and ground rules are set. Stage 2 is the Fact Phase, in which the basic, concrete facts of the event are discussed. Facts about what each worker did during the event are also discussed. Stage 3 is the Thought Phase in which each group member's thoughts were while working at the event. Stage 4 is the
Reaction Phase in which the members are moved to a more emotional level and
ventilation usually begins at this point. Stage 5 is the Symptom Phase in which reactions
to the event are discussed among the group members. This stage is a movement back
towards the cognitive level. Stage 6 is the Education Phase in which group members are
informed and educated as to what to expect as far as reactions to the traumatic event are
discussed. Stage 7 is the Re-entry Phase in which additional questions are asked and
referrals to other care providers are discussed (Mitchell & Everly, 1998).

The Accelerated Recovery Program for Compassion Fatigue (Figley, 2002) is a
brief, 5-session plan of treatment specifically designed to battle compassion fatigue that
also has didactic and cathartic elements. Session 1 is designed to allow assessment and
evaluation of each group member. Measurements are used, as are verbal assessments of
the symptoms that the professional is presenting with. Session 2 is a skills acquisition
session in which attendees are taught relaxation skills and are given a chance to tell their
stories and to re-live the experience in the company of others. Session 3 is designed to
allow for re-framing and reprocessing of events. Triggers to traumatic feelings are
explored and attendees are informed as to the aspects and symptoms of secondary
traumatic stress. Session 4 is designed to allow for a review of skills acquisition and to
identify professional needs that should be addressed. Session 5 is designed to allow for
closure and to assess and refer to aftercare (Figley, 2002).

*Humor*

Trait approaches are considered as approaches that rely on individual
characteristics for coping with stressful situations. Figley (2002) describes the trait
approach of humor as being helpful in combating compassion fatigue. Humor theories
suggest three aspects that make humor a useful approach in addressing stress and fatigue in high stress occupations. Incongruity theories suggest an unexpected association of at least two normally unrelated or conflicting contexts. This aspect of incongruity includes the view that a state of tension builds up in one situation, and when that situation changes or is seen as less threatening, the previous level of tension is dissolved and is released as laughter. Superiority theories argue that humor denotes a sense of superiority in ourselves as compared with others, or even our former selves. Gallows humor in organizations tends to support superiority theory in that this humor often has a target, such as a co-worker, or someone higher up in the hierarchy, such as a supervisor or lieutenant. Paton, Violanti, and Smith (2003) suggest that there is reason to believe that this sense of superiority could spill over into the field experiences of emergency workers. Psychoanalytic theories suggest that humor is related to repressed emotions, such as fear and anxiety. These theories suggest that humor in emergency response personnel are associated with the repression of horror and sadness associated with traumatic incident. Humor is seen as the highest form of psychic self-defense (Paton, Violanti, & Smith, 2003). Humor serves a role in cognitive reframing, but can also be viewed as a sign of distress. The role of humor in mitigation of compassion fatigue is discussed in Figley's writings as well. The value of a sense of humor is viewed in light of how it helps people process negative information. People with a high sense of humor do not experience fewer stressors. Rather, they experience lower levels of disturbance as a result of this sense of humor.
As a sign of distress, humor may be seen as an individual’s attempt to stop the current process that is in motion producing discomfort. It may also be seen as a symptom of posttraumatic or secondary traumatic stress disorders.

Humor’s role in compassion fatigue is a two-sided argument. While humor has been used widely in therapy, its role in treating trauma symptomology is less established. In a variety of stressful situations, the use of humor to enhance coping and overall functioning has been demonstrated with those facing serious illnesses, in high-stress occupations, and in caregiving professions (Moran, 2002). Despite humor’s positive impact on stressful situations however, some believe that humor has a differential effect on anxiety and depression. It is suggested that humor may have an adverse effect on people in stressful situations and that it may actually heighten arousal in individuals experiencing stress and trauma and is actually a denial mechanism allowing the person to avoid dealing with the situation at hand (Moran, 2002).

Bio-physiological Approaches

Bio-physiological approaches are those approaches that utilize or rely upon an individual’s body chemistry or physiological mechanisms in addressing the situation. Figley (2002 and 2002) describes the application of the bio-physiological approach of Eye Movement Desensitization and Reprocessing (EMDR) to traumatic experiences. EMDR has been described as working with all of the perceptual parts of one’s memory structure in an effort to create new links with less traumatic material. Although eye movements are considered its most distinctive and mysterious element, this approach is not dominated by eye movements alone. Eye movements are used to engage the client’s attention to an external stimuli, while simultaneously asking the client to focus on
internal emotions and experiences (Shapiro, 1991, 1993). EMDR is a short-term treatment protocol designed to treat trauma-based disorders, and has its basis in neurobiological principles. EMDR takes place as the clients attend to traumatic memories while at the same time, focusing on external stimuli such as therapist-directed eye movements, hand tapping and auditory stimuli. This approach is designed to allow the client to reprocess traumatic memories through desensitization of emotional distress and positive reformulation of the cognitions associated with the traumatic memories. As these memories are reprocessed, relief from the prior feelings of arousal associated with memories is obtained. The eye movement component is the most unusual aspect of this approach. Research involving eye movements in relation to thought processing, dreaming, brain function, perception and memory has proven that the clinical use of eye movements are beneficial.

Rest and Respite Approaches

Rest and respite approaches, while non-specific, are generally interventions designed and implemented to provide the emergency responder with down-time and relaxation. No specific clinical intervention is mentioned in the literature in regards to these rest and respite approaches, however their importance is nonetheless a necessary element in combating stress and compassion fatigue. Any processing is done with peers or co-workers in these models (Figley, 1996).

Desensitization

Desensitization approaches are described as a pre-event exercise in which emergency response personnel view footage of previous disasters. During the tape viewing, personnel are asked to anticipate challenges they may encounter during future
events similar event they are watching. The group discusses anticipated failures and successes in regards to rescue work, team work, and outcomes. Creating a cognitive schema (Blair & Ramones, 2002) for traumatic events is hypothesized to lessen the impact of a real life event.

**Demobilizations**

Demobilizations are held immediately after a disaster or traumatic event. Personnel are not specifically asked to discuss the events of the day (Mitchell & Everly, 1998). Instead of processing events, demobilization is a time for workers to “disengage” from the event before returning home or back to work. This disengagement is facilitated by a short presentation on critical incident stress and suggestions for stress management are given. Personnel are told what to expect mentally and physically as a result of being part of a traumatic event. The majority of the time spent in demobilization is spent resting and eating (Mitchell & Everly, 1997). A comfortable setting near the incident scene is provided as is food and drink. It serves a second function as a screening opportunity to insure that responders who need help may be identified as soon as possible.

**General Approaches**

Throughout the literature, general approaches to handling compassion fatigue can be found (Everly & Mitchell, 1997; Figley, 1995, 2002). Authors suggest that workers be encouraged to maintain a balance between work, family and leisure time. Maintaining a healthy personal life enables workers to have fun alone and with others and to keep an overall positive outlook on life and humanity. Maintaining this balance also enables
them to keep their professional lives in perspective, which in turn allows them to have a fresh approach to work.

Organizational Approaches

Authors also encourage workers to keep themselves physically and mentally in shape. A schedule that includes regular exercise, a good diet and adequate rest will go a long way in battling caregiver stress. Seeking mental health services is also a part of maintaining balance in life. It is suggested that agencies facilitate the well being of workers to the fullest extent possible. Emergency response agencies, in concert with mental health agencies, should have a well-planned emergency care protocol for its personnel. Workers trained in peer supervision and stress management should be available. Supervisors should be trained to recognize workers in need of services, and agencies should facilitate well being through providing appropriate time off and offering employee assistance programs. Benefits such as regular vacation and health club memberships will encourage a healthy lifestyle (Figley, 2002).

Several current approaches to mitigating compassion fatigue in emergency response personnel have been discussed. In the next section, the need for a new and different approach to addressing the needs of emergency response workers will be presented. A new approach is justified as a result of the shortcomings of the aforementioned approaches.

Justification for the Study

In the preceding section, the construct of compassion fatigue has been discussed and its effects have been highlighted. It seems clear that men and women employed in emergency response professions work in an environment that has great personal costs,
and it is imperative that research continues in an effort to combat the detrimental effects of the occupation. The current approaches to mitigation and treatment currently available in the literature have been presented. It is necessary to point out possible weaknesses in the current approaches and direct the remainder of this study towards a new paradigm for prevention and treating compassion fatigue in emergency response personnel.

Despite the variety of those approaches to treating compassion fatigue the current models appear to be vulnerable to criticism in a number of areas. These vulnerabilities do not render these approaches useless or less applicable to treatment for compassion fatigued emergency response personnel. Rather, they open the door for other approaches and modalities to be considered when addressing the phenomenon of compassion fatigue.

Didactic interventions such as Critical Incident Stress Debriefing and The Accelerated Recovery Program for Compassion Fatigue, are geared towards a group setting. The group approach fails to take consider individual factors which may be important to consider in a treatment modality. A group approach assumes several factors. For instance, it assumes that all participants start at the same “place” mentally and emotionally. The group approach also assumes that all group members progress at the same pace. Individuals may not expressly be given the chance to make sense of their experience through reflection or extended group interaction. While the processing of emotions may be a part of these treatment approaches, the group is less likely to allow for making sense of the emotional process on an individual basis. Lebow (2003) adds that those who receive CISD typically do no better than those who don’t, and that a significant number of those treated with CISD do even worse than those who didn’t receive any type of treatment.
Demobilizations, while helpful and serving a necessary function after a traumatic event, do little other than give the emergency responder the opportunity to rest and replenish his/her body and mind before returning to work or home. The educative didactic element, wherein workers are informed as to the effect of the event on them personally, is helpful. However, it assumes that the individual has the ability at that particular moment to comprehend all that has occurred and all that has been said.

Rest and respite approaches are a necessary part of such a stressful occupation; however, the individual is not given the opportunity to actively participate in the healing process. Time off is a good way to rest one’s body, but emotions are not processed while taking time off unless the worker takes the initiative to seek counseling on her own accord. If time of is taken and the individual does not work through the trauma encountered on the job, the worker’s mental health may actually deteriorate in isolation.

Desensitization approaches do prepare the emergency responder for traumatic events on some level, but the group approach takes away the attention that the individual may need in becoming comfortable with the possibility of encountering a traumatic event. The desensitization approach does focus on the creation of a cognitive schema for traumatic events in the worker, yet extended processing time and reflection is not a part of this approach (Blair & Ramones, 1996).

The Eye Movement Desensitization and Reprocessing model does not take into account the process of emotions; rather, the EMDR process works on cognitions associated with traumatic events through a much deeper cognitive restructuring method. While individually tailored to meet the individual, the clinician is seemingly directing all of the therapeutic process throughout the treatment. No extended process time is used
and interaction with others who are suffering is a part of the treatment approach. That is to say that a period of reflection does not occur in EMDR. Little or no attention is given to the cognitive or affective aspects of the traumatic event. Critics argue that EMDR provides little impact in areas other than simple relaxation and exposure to traumatic memories recalled during treatment (Lebow, 2003). Dismantling studies with EMDR participants found no effects for the eye movement aspect at all (Carrigan & Levis, 1999).

Weaknesses in the aforementioned treatment approaches have been addressed, but there are some general weaknesses of all of the modalities discussed so far. There is no concerted effort in any of the approaches discussed to promote growth and development in participants. While some development is expected from any type of intervention, there is no active approach to promoting this growth. The approaches are somewhat scripted and detailed and do not allow for much flexibility. The brevity of each approach could also be seen as a limitation to these treatment approaches. Rather than ensuring that participants are getting better, the goal seems to be to finish the plan of action. These approaches suggest a few sessions over a short period of time. While helpful, the short amount of time given may not be enough time for healing and growth to occur.

There is no mention of cultural factors which may impede or speed up the healing process set in motion in any of the aforementioned treatment modalities. Characteristics based on gender or ethnicity in dealing with trauma, stress, and mental health treatment are not addressed. The increasingly diverse population and therefore the increasing diversity in the emergency response workforce make this a necessary consideration when treating compassion fatigue. Finally, the approaches do not seem collaborative in nature.
That is to say that these approaches are heavily guided and controlled by the clinician. Interaction between participants or between clinician and participants seem somewhat limited.

In summary, the construct of compassion fatigue has been discussed and its effects highlighted. The impairing effects of compassion fatigue on emergency response personnel have drawn the attention of many researchers, clinicians and treatment providers. The result of that attention has been the development of several approaches to treatment of compassion fatigue. While these approaches have shown to be helpful, the aforementioned vulnerabilities make possible the consideration of newer treatment paradigms in approaching the disastrous effects of compassion fatigue.

An alternative treatment paradigm for the understanding and approaches to compassion fatigue are found in a cognitive developmental approach. Cognitive developmental theories describe individuals in terms of their thought processes and the ways in which these thought processes impact behavior. The fundamental premise of cognitive developmental theory implies that reasoning and behavior are directly related to the level of complexity and psychological functioning in the individual (Foster & McAdams, 1998).

Purpose of the Study

The purpose of this study is to examine the possible relationship between cognitive development and compassion fatigue in emergency response personnel. It is developed on the premise that a promising approach to understanding and addressing compassion fatigue is available through cognitive developmental theory. Specifically, the
study will investigate a hypothesized relationship between cognitive development and the construct of compassion fatigue.

Should higher cognitive development be shown to lessen the impact compassion fatigue, there might be ways in which trainers and therapists could promote cognitive development of Emergency Response Personnel to render them less susceptible to compassion fatigue.

I will emphasize the hypothesis that guides this new direction in addressing the problem of compassion fatigue, which is that higher levels of cognitive development will correlate positively with lower levels of compassion fatigue in Emergency Response Personnel. As noted earlier, cognitive development is not measured generally; rather, it is measured according to various and specific domains of human development. The specific domain of cognitive development which will be utilized in addressing the stated problem is Kohlberg’s Theory of Moral Development.

Cognitive Developmental Theory

Cognitive developmental theory is best understood through an explanation of its guiding tenets and basic assumptions. The theory has three guiding or underlying assumptions. The first states that humans comprehend most effectively those stimuli that are most closely matched to their current level of psychological complexity. Restated, this means that individuals can most effectively handle those situations and events in which their current psychological makeup will allow them to handle. Secondly, higher levels of cognitive development allow human beings to maintain effective functioning in more complex environments. The last of these guiding tenets states that human growth and development is possible across the life span of the individual (Sprinthall, 1994). The
individual's potential and capacity to learn and grow does not cease at any given age. The eleven major tenets of cognitive developmental theory further discuss implications of this theory, and they are discussed in greater detail in the following chapter.

The process of cognitive development is marked by the distinct concepts of schema, assimilation, accommodation and disequilibrium (Wadsworth, 1989). Schema, or schemata, are the cognitive and mental structures by which individuals adapt and organize the environment in which they inhabit. They change and adapt with mental development. These schema are intangible and are inferred to exist as nothing physically exists to prove their presence.

Schema are used to process new incoming information. Each schema is likened to an index card for the brain in which experiences are processed and filed away for future use. As an individual has an experience, the person mentally “flips through” the existing schemata in an effort to make sense of that particular experience. If the experience is not already a part of the individual's cognitive make-up, the processes of assimilation and accommodation are put into motion. Assimilation is the process by which the individual integrates new experiences into the currently existing schemata or pattern of behavior. Assimilation can be viewed as the cognitive process of placing new stimuli into existing schemata (Wadsworth, 1989).

Accommodation is the creation of new schemata or the modification of old schemata to accommodate new experiences. Both assimilation and accommodation work in the process known as equilibration in an effort to move the individual from lower levels of development to higher levels of development. Equilibration is the necessary component in cognitive growth for the individual and is the process of finding balance, or
comfort, in the face of new experiences. New experiences cause an unbalance in the individual’s cognitive make-up, thus motivating the individual to incorporate the new experience into his cognitive structure (Wadsworth, 1989).

Definition of Terms

Compassion Fatigue: Compassion fatigue has been defined by Figley (1995, 2002) as “paying the costs of caring”. Compassion fatigue is more specifically defined as a state of tension and preoccupation with the individual or cumulative trauma of clients as manifested in one or more ways, such as: re-experiencing traumatic events, avoidance of reminders of the traumatic event, or persistent arousal, combined with the added effects of cumulative stress or burnout. Compassion fatigue will be assessed using the Professional Quality of Life, 3rd Revision (ProQOL-R-III) (Stamm, 2002).

Compassion Satisfaction: Identified by Stamm (1998) as a possible mediator of compassion fatigue, this construct describes the feeling or sense of reward an individual perceives as a result of working in an otherwise traumatic setting. It is one’s ability to gain satisfaction through trying to make the world a reflection of what one thinks it should be.

Moral Development: Kohlberg’s Theory of Moral Development is based upon forms of thinking about interpersonal conflict situations (Gielen, 1998). This theory focuses on conscious moral decision making while rejecting cultural and personal relativism. Issues of moral concern focus mainly on issues of social justice; questions of fairness and ethics are at the center of this theory. This stage-based theory is broken down into six stages, which will be discussed in greater detail in the following section. Moral Development will be assessed using the Defining Issues Test – Short Form (Rest, 1979).
Emergency Response Personnel: For the purposes of this study, Emergency Response Personnel will include those individuals who are employed as Emergency Medical Technicians, Paramedics, Firefighters and First Responders.

Methodology and Research Design

Sampling and Data Gathering

The total number of subjects for this study was 91. Data was gathered in two distinct ways. First, a sample of 100 subjects was drawn from the membership list of The National Association of Emergency Medical Technicians. Secondly, presentations were made at local departments, and data were collected following those presentations from those who wished to participate. Participants received a $10 Wal-Mart gift card as a reward for participating in this study.

A total of 47 subjects participated in the study as a result of presentations made at local fire departments, emergency medical service units, and state government offices. One hundred subjects were randomly selected from the membership list of the National Association of Emergency Medical Technicians to receive the research packet in the mail. A forty-five percent return rate is noted from the mail sample.

Data Analysis

Multiple Regression analysis, independent samples t-tests, and ANOVA were conducted using SPSS Statistical Software. Investigative research questions were analyzed using simple correlational analysis.
Limitations of the Study

Campbell and Stanley (1966) discuss challenges to the internal and external validity of research design. Threats to internal and external validity specific to this study are discussed below.

_threats to internal validity_

Historical factors may present as a possible threat. For instance, another incident similar to the events of September 11 may occur. Local events may also take place and they may have an impact on those surveyed during the course of this research.

Instrumentation factors are also a concern. Validity and reliability studies of the ProQol-R-III are in the formative stages and do not present a perfect measure of the construct of Compassion Fatigue. Despite this fact, the construct is worthy of study and as researchers, we must use the best available measure. Selection factors will present a threat to internal validity as well. This will not be a randomly selected group of participants. Purposeful sampling will be used in an effort to access those who possess the information that this study seeks to understand.

_threats to external validity_

The Hawthorne Effect may be a possible threat to the external validity of this study. The participants may respond in ways that he/she feels they should respond. Novelty Effects may be present as this research may be seen cause the participants to respond with a heightened sense of enthusiasm in completing the surveys. Sampling and data gathering methods will limit the generalizability of results to the general population.
Summary

This chapter has served to briefly introduce the study at hand, which is to determine the contribution of cognitive developmental level to compassion fatigue in Emergency Response Personnel. An explanation of Cognitive Developmental Theory has been offered as the theoretical rationale which is driving this investigation. Definitions have been discussed in an effort to clarify terms which are to follow in the coming sections and possible limitations of this study have been discussed as well. At this point it is necessary to present a review of the literature regarding Cognitive Developmental Theory, Moral Development Theory, and Compassion Fatigue. Research linking these constructs with the helping/caretaking professions are included in the following review of the literature as well.
CHAPTER TWO

LITERATURE REVIEW

This chapter will present a review of the available literature regarding moral development and compassion fatigue. Scholarly research will be reviewed and empirical research regarding each topic will be critically analyzed.

Compassion Fatigue

Given the multitude of stressors, traumatic scenes, ambiguous nature and anxiety provoking situations, emergency response work is expected to take its toll on emergency response personnel. Beaton and Murphy (1995) describe that the very nature of the work environment places emergency response personnel at risk for experiencing compassion fatigue. Authors suggest that the unpredictability of this work environment is a major source of exhaustion and stress (Paton & Violanti, 1996). Many other researchers have contributed to the understanding and conceptualization of the construct of compassion fatigue as well.

Compassion Fatigue has been generally defined as the “paying the costs of caring” by Figley (2002) and is associated with the feelings experienced by those individuals emotionally affected by the traumatic experiences of another person. Generically, the term is used to describe the various helper traumas experienced by those in the helping professions. Other terms associated with this phenomenon are secondary traumatic stress, vicarious traumatization, and secondary victimization. Figley’s specific definition of Compassion Fatigue is as follows: A state of tension and preoccupation with the individual or cumulative trauma of clients as manifested in one or more ways, such as: re-experiencing traumatic events, avoidance of reminders of the traumatic event, or persistent arousal, combined with the added effects of cumulative stress or burnout.
Compassion fatigue has been described as the natural, consequent behaviors and emotions that result from knowing about a traumatizing event that has been experienced by another person or wanting to help a traumatized or suffering person. The whole construct of compassion fatigue appears to be a unique and necessary synthesis of the constructs of secondary traumatic stress and burnout (Jenkins & Baird, 2002). Figley (1995, 2002) notes that compassion fatigue is fueled by burnout, countertransference, and empathy.

Compassion Fatigue is the emotional residue of the constant exposure to working with those suffering the events of a traumatic experience. It is marked by a gradual disengagement, emotional numbing, exhaustion, and diminished levels of motivation. While closely related to Post-traumatic Stress Disorder (PTSD), it is removed from PTSD in that all the effects are as a result of helping and caring for others and serving in the particular role as a caregiver (Figley, 2002).

Compassion Satisfaction

Stamm (1998) has written that not all individuals in caregiving positions are at risk for developing compassion fatigue. The caregiving professional is motivated to help partially because of the satisfaction perceived from the work in his/her professional role, a condition referred to as compassion satisfaction. Compassion satisfaction has been identified as a possible mediator to compassion fatigue and is a way of conceptualizing the rewards felt or perceived by emergency response personnel while performing their respective jobs. It has been identified as the positive side of an otherwise traumatic work environment, or as Collins and Long (2003) suggest that it is the guiding paradox in caregiving occupations. While the environment causes a great deal of stress and
exhaustion, workers also are able to see the positive side of what it is they do. Stamm, in Figley (2002), identifies compassion satisfaction as one's ability gain happiness through trying to make the world a reflection of what one thinks it should be. Despite the horrific circumstances of this profession, satisfied individuals continue to work in this environment and they continue to do their jobs well. In contrast to what Figley labels the costs of caring as compassion fatigue, Stamm provides a conceptualization for the rewards, or payments, in traumatic environments through the concept of compassion satisfaction.

Burnout

As mentioned earlier, Figley acknowledges burnout as a part of compassion fatigue, and burnout was incorporated into the theoretical base of compassion fatigue in order to understand the energy depletion characteristic of this syndrome (Jenkins & Baird, 2002). Burnout is generally described as a condition originating as a result of the frustration, powerlessness, and inability to achieve work goals. Elements of burnout lead to deteriorating job performance and lowered amounts of job satisfaction. Other contributors to burnout may be hierarchical issues at work, workplace constraints, and a lack of support from managers or supervisors. These symptoms lead to high turnover rates, decreased job satisfaction, and lowered support towards other individuals at work. Its symptoms include sleep disturbances and somatic complaints such as headache and nausea, as well as irritability, aggression, and physical and mental exhaustion. Researchers have also alleged callousness, pessimism, cynicism, declining performance at work, and poor relationships with coworkers as resulting from burnout. (Baird & Jenkins, 2003; Figley, 2002; Paton & Violanti, 1996).
Countertransference

Countertransference frequently arises when we work with individuals who are hurting (Fox, 2003). Orr (Fox, 2003) describes the range of countertransference reactions that occur in helpers. Countertransference proper is the specific responses of the helper to the other’s transference. The second type of countertransference involves the responses to the other generated out of helper’s experiences as a whole, or the helper’s transferences to the client. The third type of countertransference relate to the variety of responses aroused in the therapist as a result of the crucial role played by the therapist in the client’s life.

Compassion fatigue takes into account the construct of countertransference and the impact which it has on the caregiving professional (Blair & Ramones, 1996; Collins & Long, 2002). Figley (2002) theorizes that compassion fatigue includes the concept of countertransference, but is not limited only its effect. Countertransference is the mechanism through which helper symptoms arise. The concept of countertransference has traditionally been related to the therapist’s unresolved or unconscious conflicts or concerns, however, in the literature regarding victimization work, countertransference has been more widely defined and applied to include the painful feelings, images, and thoughts that are associated with occupational exposure to victims and trauma survivors (Fox, 2003). McCann and Pearlman (2002) write that caregivers that work with the darkest side of humanity are forever changed by the experience, and that exposure to the traumatic experiences of victims may sometimes be caustic to the mental health of individuals close to the victim, including caregivers. Blair and Ramones (1996) describe the unique type of countertransference that occurs in a caregiving relationship as “contact
victimization.” Evidence exists within the area of victimization research that persons who work closely with victims may exhibit signs and symptoms similar to the victim (Figley, 1983). This has been described as secondary victimization, compassion fatigue, or secondary traumatic stress.

*Empathy*

Empathy also plays a role in compassion fatigue and its presence in emergency response personnel. Huggard (2003) notes that the role of empathy in helping relationships has been acknowledged from a number of theoretical viewpoints and is best described as multidimensional, involving emotive, moral, cognitive, and behavioral components. Figley (1995) writes that those caregivers who have the capacity for feeling and expressing empathy are at great risk for developing compassion fatigue. Despite the effects that empathic understanding may lead to in emergency response personnel, empathy is an important, necessary trait to possess if working in a caregiving role. Understanding the perspective of the victim or client is crucial to providing care and support in traumatic events and circumstances. The process of empathizing with a victimized individual helps to understand the unique position of the victim, but in the process, emergency response personnel run the risk of being victimized or traumatized as well. A capacity for empathy renders rescue workers vulnerable to the secondary traumatic stresses of the victims they work with. Empathy renders caregivers especially vulnerable when the boundary between the helper and the victim becomes blurred and the helper seemingly adapts and identifies with the client, thus taking on the client’s pain and anger.
Regeher, Goldberg, and Hughes (2002) further elaborate on the process of empathic engagement and its contributions to compassion fatigue. The authors break down empathy into two distinct parts: cognition and affect. The cognitive aspect of empathic understanding enables the individual to accurately perceive the trauma of another person. At this level, the caregiver can remain objective, detached, and analytical. The affective element causes the caregiver to have an emotional response to and with the victim. Emergency workers in their work with victims may display either a cognitive awareness of the victim’s situation, an emotional connection with the victim, or both.

Compassion Fatigue versus Burnout

Despite conceptual similarities, several authors examine the differences that exist between the construct of burnout and the construct of compassion fatigue (Baird & Jenkins, 2003; Blair & Ramones, 1996; Collins & Long, 2003; Figley, 2002; Jenkins & Baird, 2002). Descriptive differences focus on several areas in an effort to contrast the two constructs. Compassion fatigue is different from burnout in that burnout is associated with stress and hassles in any type of work, while burnout is more cumulative in nature, is somewhat expectable (Figley, 2002). Burnout is usually ameliorated by taking time off or taking a scheduled vacation. Burnout can occur with any occupational field and has more to do with the chronic tedium in the job environment than with exposure to particular job environments involving victims of traumatic events (Jenkins & Baird, 2002). Compassion fatigue is described as a specific state of tension whereby the caregiver is preoccupied with the victim or the cumulative trauma of victims who have experienced a traumatic event. With compassion fatigue, the caregiver is absorbing the trauma through the eyes and ears of the victim. That is to say that the caregiver’s
empathic capacity allows them to be affected by the experiences of the victim (Figley, 2002).

Compassion fatigue is described as being sudden and acute in caregivers, while burnout is gradual and cumulative. Burnout is more related to the workers inability to effect positive change in the work environment. While different from compassion fatigue, burnout is identified as a possible precursor to compassion fatigue (Collins & Long, 2002). Burnout does have a significant impact on caregivers, however, the concept of burnout does not fully account for the impact that work has on those who work with abused or traumatized victims on a regular basis (Blair & Ramones, 1996).

Figley (2002) refers the difference between burnout and compassion fatigue in that they occupy two different locations on a survival strategy matrix. The survival strategy matrix (Valent, 1998) describes eight survival strategies that humans employ in order to survive in accordance with environmental demands. Survival strategies are the adaptive actions human beings take on in relation to the positions they occupy in stressful situations. In appraising a situation and formulating a means for survival, humans choose a course of action. The actions a person takes are the means that he or she assumes will lead to survival. Compassion fatigue is located on the Rescue-Caretaking category, while burnout is located in the Assertiveness-Goal Achievement category.

Emergency response personnel appraise traumatic situations according to their role, which is to save or rescue others. Successful appraisal and action leads to responsibility, nurture and preservation of life. Unsuccessful appraisal and action leads to anguish and compassion fatigue. As others work to achieve goals, they view behaviors
associated with assertion as a survival strategy. Successful responses lead to success, while maladaptive responses lead to burnout and exhaustion (Figley, 2002).

Jenkins and Baird (2002) report on the construct validity of compassion fatigue in relation to burnout. In their validational study, the authors found moderate convergence between compassion fatigue as measured by the Compassion Fatigue Self Test and burnout, as measured by the Maslach Burnout Inventory, but there was useful discrimination between the two. The burnout scale on the Compassion Fatigue Self-Test does not measure the same construct of burnout as measured by the Maslach Burnout Inventory. Jenkins and Baird (2002) state that burnout measured by the compassion fatigue scale captures a different form of burnout than that type of burnout measured by the Maslach Burnout Inventory. This may be due to the Compassion Fatigue Self-Test’s focus on trauma symptomology, as opposed to the more general type of burnout measured by the MBI.

Impact of Compassion Fatigue

Compassion fatigue manifests itself in a number of ways and researchers have elaborated on the personal, physiological, professional, and familial effects of this phenomenon (Figley, 2002; Gentry, Baranowsky & Dunning, 1997; Hildebrand, 1986)

The personal impact of compassion fatigue will manifest itself in any number of cognitive, emotional, and interpersonal ways. Cognitive difficulties associated with compassion fatigue include decreased levels of self-esteem, apathy, rigidity, and perfectionism. Direct work with victims of trauma is stressful and can produce symptoms such as embarrassment, frustration, and anger. Emotionally, an individual may have intense feelings of powerlessness, guilt and anger. Night terrors have been reported by
some paramedics. Emotional numbing and depression also are characteristic of the mental effects of compassion fatigue. The person may also become inpatient, withdrawn and hypervigilant in regards to job performance. Other psychological responses to compassion fatigue have been identified as identification with the victims and fear of the unknown. Researchers have also identified a dissociative response in individuals dealing with traumatic events and situations. Compassion fatigue may also lead the individual to resort to substance abuse as a type of self-medication (Figley, 1995, 2002).

Physiological changes also have been identified in individuals suffering from compassion fatigue. They may display symptoms of shock and an impaired immune system. Breathing difficulties, dizziness and an increased heart rate mark more sudden onset of symptoms. Other immediate physiological changes that may be recognized are shock, sweating, and body aches. Over time, an increased number of somatic complaints, both in number and intensity, may be reported (Figley, 2002).

Professionally, individuals who suffer from compassion fatigue may display habits that are not conducive to the work environment. They may withdraw from their co-workers and begin avoiding certain tasks associated with their job duties. Workers will lose commitment to the job, and absenteeism is usually a precursor to increasing difficulties. An individual may become obsessed with details, while at the same time, low levels of morale and motivation will lead to conflicts with supervisors and co-workers. Increased injury rates have also been attributed to stressful events and paramedics (Figley, 2002). The Silencing Response (Gentry, Baranowsky, & Dunning, 1997) also has significant impact in the professional realm and has been identified as a possible effect of compassion fatigue on caregivers. This has been identified as an inability to care
for victims or hear client’s stories; instead, the caregiver will redirect what is taking place to an easier, less distressing material for the caregiver. For example, this impedes a caregiver’s ability to fully care for the victims and may lead to further harm for the victim.

The personal aspects of compassion fatigue may ultimately begin to affect the family system. Poor marital adjustment has been reported among families of fire service personnel. Again, the individual may begin to withdraw from family members and other friends outside of the workplace. The individual may become overprotective of family members, especially children, and a decreased interest in intimacy or sex is characteristic as well. Intolerance, mistrust and loneliness also affect interpersonal and familial relations of an individual suffering from compassion fatigue (Figley, 1995, 2002).

Research on Compassion Fatigue in the Helping Professions

Despite the emerging status of compassion fatigue, extensive research has been conducted since this construct’s emergence in 1986 (Joinson, 1986). The following section will present a review of the relevant theoretical literature regarding this research and its relevance to the helping professions.

Wee and Meyers (in Figley, 2002) conducted research involving disaster mental healthcare workers following the 1995 bombing of the Alfred P. Murrah Federal Building in Oklahoma City, Oklahoma. The purpose of this study was to assess the psychological impact of providing disaster response counseling and to identify stress management techniques used by this sample. In this study, thirty-four crisis response counselors returned survey packets that included The Compassion Fatigue Self Test for Helpers, The
Frederick Reaction Index – A, and The Symptom Checklist 90 – Revised. In addition to these measures, a demographics form was given to respondents. Their findings suggest that as a whole, the group was at high risk for both compassion fatigue and burnout. Average mean scores for each measure were used to make this determination. Various stress management techniques were used by the sample in an effort to battle compassion fatigue, with debriefings, leisure activities and exercise being the most utilized techniques. Significant differences in scores on all three scales were reported, indicating that the scales appear to measure different domains of respondent reaction (Wee and Meyers, 2002). This study is important in that it illustrates the impact of traumatic experiences on caregivers following a traumatic, stressful event. The significant differences found among scales indicates that each measure quantified a distinct domain. However, the small sample size and the timing of the survey present challenges to the study. Only 34 respondents participated in this study and it took place shortly after a very historically significant event, however the sample was diverse, lending credibility to the findings of this study.

Collins and Long (2003) conducted a combined qualitative and quantitative longitudinal study that was designed to measure the psychological impact in caregivers who work with traumatized people over an extended period of time. Data was collected on four different occasions over a period of time ranging from August 1998 until February 2001. The precipitating event was the Omagh car bombing in Northern Ireland on 15 August 1998. Quantitative data was gathered using the Compassion Satisfaction/Fatigue Test and the Life Status Review Questionnaire. The Compassion Satisfaction/Fatigue Test is an instrument that assesses compassion fatigue and
compassion satisfaction in respondents. The Life Status Review is a general assessment that looks at 30 different aspects of a person’s life, including employment, financial, health, and substance use aspects.

Analysis of the data in the Collins and Long (2003) study indicates that levels of compassion fatigue and burnout increased substantially during the period under examination. Levels of compassion satisfaction decreased during the stated time period. The results of this study indicate, as hypothesized by Stamm (1998), that compassion satisfaction is a possible mediator of compassion fatigue. Caregivers with higher levels of compassion satisfaction were less likely to exhibit corresponding high levels of compassion fatigue and burnout. Levels of life satisfaction also noticeably decreased over the period under examination. Qualitative data associated with the Collins and Long (2002) study showed that comraderie, client recovery, and team spirit are among the more positive aspects of working in this profession. Media coverage, dealing with anger of bereaved relatives, and hearing client’s stories provide the most negative aspects of the occupation. Lack of understanding from supervisors and the underestimation of impact on workers also appeared to exacerbate the problem in trauma workers.

The relatively small sample size (n = 13) limits generalizability of the research to the larger population. Respondents were also volunteers from the Trauma Response Team. Gall, Borg, and Gall (1996) indicate that volunteer status of respondents may pose a threat to the validity of research. The timing of the research, which immediately followed a mass casualty/fatality accident was imperative in capturing the hypothesized immediate onset of compassion fatigue in trauma response workers (Figley, 1995, 2002). As noted earlier, compassion fatigue is notably sudden and acute in caregivers. The
longitudinal study lends credence to the notion that compassion fatigue can be a growing problem for professionals for some time after a precipitating event. The qualitative nature of this study also captures the essence (Creswell, 1998) of the worker’s experiences over and above the standardized measures used in this research.

The Collins and Long (2002) findings yield implications for those involved in trauma work. The findings support the concept that trauma work takes it toll on trauma workers, and that compassion fatigue is a consequence of working with traumatized clients. The study also indicates, as Stamm (1998) and Steed and Downing (1998) hypothesize, that trauma work does have a positive side, as in the concept of compassion satisfaction. Emergency response personnel were able to identify aspects of their profession that somehow serves as a buffer against the detrimental effects of this type of work.

Wee and Myers (2003) conducted research investigating compassion fatigue and Critical Incident Stress Management team leaders. This study was an attempt to gauge levels of compassion fatigue, burnout, and compassion satisfaction in individuals who routinely provide Critical Incident Stress Management services to various agencies. Sixty CISM practitioners were surveyed during a presentation at a professional seminar that introduced attendees to prevention methods for compassion fatigue. In their study, more than half of the respondents (58%) reported negative symptoms after providing CISM services. Forty percent of respondents were found to be at high risk, extremely high, or moderate risk for compassion fatigue while 87% were found to be at low risk for burnout. Eighty nine percent were found to be exhibiting extremely high, high, or moderately high levels of compassion satisfaction. Forty percent tested positive for compassion fatigue as
a result of their empathy with CISM recipients. Wee and Myers (2003) state that the results indicate that even though CISM practitioners are aware of the negative results of working with traumatized people, their work provides rewards which appear to outweigh the stress and protect them from burnout and compassion fatigue in some instances. Increased age is associated with higher levels of compassion satisfaction in this sample.

The number of respondents (n = 60) is a larger number than previously reported in the other studies, however, the respondents were not randomly selected and thusly impacts the generalizability of the results. The sample did include a wide variety of CISM workers from across the emergency response spectrum. Firefighters, nurses, social workers, and law enforcement were among professions represented in the sample. Respondents were however, attendees at a workshop at a professional conference, thus making them volunteers and impacting the validity of this experiment. Despite the limitations of this study, it does provide useful information. As the authors point out, the perceived rewards of this work has a mitigating effect on the costs of caring, or compassion fatigue. This indicates that, although workers knowingly work in an environment that could possibly harm them psychologically, they obtain equal or greater satisfaction from providing the types of services that they offer.

Rudolph, Stamm, and Stamm (1997) considered the impact of compassion fatigue on caregivers as an area of concern for policy makers, providers, and administrators. They surveyed 113 females and 66 males in an effort to assess the effects of compassion fatigue on nurses and other mental health professionals. Participants were asked to complete the Compassion Fatigue Self Test, the Life Satisfaction Scale, and the Stressful Life Events Scale. Participants were asked to complete a demographics form in an effort
to assess the individual and organizational variables that may contribute to or mitigate the development of compassion fatigue.

Results indicate that 37% of respondents were at risk for compassion fatigue, while 54% were at high risk for burnout. Post hoc analysis indicated that Masters level respondents exhibited the most vulnerability to compassion fatigue, while Bachelor and Doctoral level caregivers were at a lower risk for compassion fatigue. Male doctoral level providers were the group least likely to be at risk for compassion fatigue. Interestingly, personal trauma history significantly impacted vulnerability to compassion fatigue in this sample (Rudolph, Stamm, & Stamm, 1997). A personal history of trauma increased the risk for developing compassion fatigue in this sample.

The implications for the field are many. Rudolph, Stamm, and Stamm (1997) suggest that healthcare agencies and policy makers should work to provide support systems that protect workers against the effects of compassion fatigue. The authors also suggest the availability of training programs to assist workers in identification and recognition of compassion fatigue and promoting an awareness as to the professional impact of compassion fatigue. The healthcare organization depends on the health and well-being of its workers and should take precautions so as not to let the nature of the work impair these professionals.

This study exposed many serious points for healthcare agencies to consider in regards to service delivery and personnel issues. The preliminary nature of this data does indeed warrant future research (Rudolph, Stamm, & Stamm, 1997), and future studies should be done with this population. The small, voluntary nature of the sample impairs this study’s generalizability to the larger population, but the authors recognize this. The
finding in this particular sample as to 100% of respondents having a prior personal trauma seriously impacts the validity of this study as well. This finding does have implications for future research, though. Empirically, the differences in compassion fatigue between providers with and without personal trauma histories should be investigated. No significant historical event precipitated this study.

Baird and Jenkins (2003) investigated compassion fatigue in sexual assault and domestic violence agency staff. They hypothesized 1) that less experienced and younger personnel would report more secondary traumatic stress, general distress, and burnout compared to older, more experienced personnel and 2) greater workload exposure to assault survivors would be correlated with higher rates of secondary traumatic stress, burnout, and general distress. They also investigated differences in volunteer/paid status among caregivers. One hundred and one (101) participants were given the Compassion Fatigue Self Test, the TSI Belief Scale, a measure of vicarious traumatization, The Maslach Burnout Inventory, and the Symptom Checklist 90, Revised. Data were gathered at 11 different occasions in agency offices.

Results of this research related to hypothesis testing show that the first hypothesis, that younger, less experienced personnel will exhibit higher levels of secondary traumatic stress, was not supported for experience, and only partially supported for age. The second hypothesis, that greater occupational exposure will be correlated with higher rates of secondary traumatic stress, was not supported either (Baird & Jenkins, 2003).

The sample size lends credibility to the study, and the diversity of occupational categories was impressive as well. The fact that both hypotheses were not supported is interesting in that no attempt was made to explain what does lead to higher rates of
compassion fatigue and secondary traumatic stress. The voluntary nature of the sample
should be taken into consideration as well when critically reviewing this study. The
authors did not delineate demographic data, which impacts interpretation of the findings.
This study yields useful information in that it shows compassion fatigue is not necessarily
related to age or experience. Interesting findings suggest that higher client contact is
related to lower levels of compassion fatigue. This could indicate that the motivation to
work, or the work itself, with this traumatized clientele actually provides some type of
mitigating factor on compassion fatigue.

Jenkins and Baird (2002) conducted a validational study of compassion fatigue by
comparing it to the closely related construct of burnout. In this study, 104 domestic
violence counselors were administered the Compassion Fatigue Self-Test and the
Maslach Burnout Inventory. Tests of concurrent validity and construct validity were
conducted with the completed questionnaires.

Findings show that the relatively weak association between Compassion Fatigue
-Burnout Scale and the Maslach Burnout Inventory suggests that the two measures
capture distinctly different constructs. The authors further report that Compassion Fatigue
Self Test and the Maslach Burnout Inventory show moderate convergence, but useful
discrimination exists between the two constructs as measured by their respective
measures (Jenkins & Baird, 2002).

The authors (Jenkins & Baird, 2002) point out several weaknesses of the study.
For example, the lack of information regarding response rates and characteristics of the
sample were not included. The sample was also mostly white, female, and heterosexual.
Institutional information was also not included in the sample’s description. The study was
enhanced by the inclusion of paid and volunteer caregivers, as that is an often under
examined characteristics in studies of the caregiving population.

Roberts, Flanelly, Weaver, and Figley (2003) examined the incidence of
compassion fatigue in chaplains, clergy, and other respondents after the events of
September 11, 2001. The authors hypothesized that compassion fatigue and burnout
would be pronounced in the clergy and other respondents directly exposed to the physical
destruction at Ground Zero and/or the emotional and spiritual suffering of working with
the families and individuals who died in the terrorist attacks.

In this study, 403 clergy, chaplains, seminary students and others who provided
direct relief services were surveyed in an effort to gauge compassion fatigue in clergy
members after the events of September 11, 2001. The respondents were surveyed at a
later date during a conference that specifically addressed the impact of 9/11. The results
indicate that a large number of respondents were at high risk for compassion fatigue and
burnout as measured by the Compassion Satisfaction and Fatigue Test (Figley, 2002).
Potential for compassion satisfaction is reported as below average for the validation
sample used for the development of the CFST.

This study supports the notion that exposure to traumatic events results in higher
levels of compassion fatigue and burnout in those who respond to such incidents.
However, the small sample size and lack of information regarding validity and reliability
of the Compassion Satisfaction and Fatigue Test leaves this investigation open to
criticism. This survey was conducted close to nine months after the events of September
11, 2001. Other confounding events in the lives of the subjects were not investigated
during the course of this study.
Overall, each of these studies target individuals in similar caregiving roles and organizations and provide examples of how strongly compassion fatigue impacts those who work in these particular roles. The lack of specific empirical studies including emergency response personnel further supported and justified the need for this investigation.

To summarize, the construct of compassion fatigue has been discussed as well as the current approaches to addressing compassion fatigue. The effects of compassion fatigue have been shown to seriously impact the personal, physiological, and professional aspect of an individual's life. Interventions from various schools of thought have been created in an attempt to combat those effects. These approaches and interventions have been addressed in the previous chapter and, despite their usefulness, were shown to be open to criticism on a number of levels. For the purpose of review, many of the approaches are group centered and not centered on the individual, whereby no attention is given to individual aspects of growth and recovery. Few of the current approaches allow for extended processing of emotions and are focused solely on providing information and education. Most are noncollaborative models and are therapist driven approaches. The interventions can best be viewed as inflexible in most instances. The other models do not take an active approach to growth and development for those exposed to traumatic or stressful events, which is among the most important factors in addressing the problem.

Current models of addressing compassion fatigue neglect to prepare those in the emergency response professions for the incredibly stressful environment they encounter on a daily basis. By their very nature, emergencies and disaster events expose emergency response personnel to situations that are sudden, unexpected, unusual, and beyond the
experience or awareness of most individuals. Interventions geared towards addressing this problem should be designed to provide for the development of a flexible and adaptable response capability. An effective approach to addressing compassion fatigue must provide the emergency worker with the increased and expanded ability to work more effectively in complex and ambiguous situations (Paton, Violanti, & Smith, 2003).

Furthermore, interventions should be designed to increase one’s coping capacity in stressful situations (Roodin, 1984). More affirmative coping skills could aid workers in their developing their repertoire of coping strategies when faced with traumatic stressful events. An effective model for addressing compassion fatigue may also provide the worker with the increased ability for perspective taking (Eisenberg & Morris, 2001). The ability to step outside of the self in complex, dangerous situations and focus on the needs of others is a requirement for the emergency response profession. Developing one’s empathic capacity promotes for optimum levels of care and professionalism (Eisenberg & Morris, 2001). Emergency response personnel need the capacity to handle the overwhelming levels of empathic strain inherent in many of the situations they face on a daily basis. Hoffman (2000) argues that individuals at higher levels of moral development are better equipped to handle higher levels of empathic strain.

As noted before, an effective model of addressing compassion fatigue in emergency response personnel must do more than simply address the problem at hand. An effective intervention must develop an individual’s capacity to face stressful situations on a daily basis. It could be argued that the previously reviewed models of addressing compassion fatigue in emergency response personnel fail to completely provide the worker with the tools necessary to effectively function in this environment.
Because of the unique needs of emergency response personnel and the inability of current approaches to completely and fully facilitate growth and development to higher levels, it is necessary to consider a new approach to compassion fatigue. This new approach is possible through cognitive developmental theory.

Cognitive Development

A newer treatment paradigm for the prevention, intervention and treatment of compassion fatigue is possible from a cognitive developmental approach. Cognitive developmental theories describe individuals in terms of their thought processes and the ways in which these thought processes impact behavior. The fundamental premise of cognitive developmental theory implies that reasoning and behavior are directly related to the level of complexity and psychological functioning in the individual (Foster & McAdams, 1998).

This paper suggests that cognitive developmental theory can make significant contributions to the prevention, intervention, and treatment of compassion fatigue in emergency response personnel. Specifically, this paper suggests that higher levels of cognitive development will correlate positively with lower levels of compassion fatigue in individuals in this particular occupational category. An understanding of cognitive developmental theory is necessary.

Basic Assumptions of Cognitive Developmental Theory

The process of cognitive development is marked by the distinct concepts of schema, assimilation, accommodation and disequilibrium (Wadsworth, 1989; Piaget, 1997). Schema, or schemata, are the cognitive and mental structures by which individuals adapt and organize the environment in which they inhabit. They change and adapt with
mental development. These schema are intangible and are inferred to exist as nothing physically exists to prove their presence.

Schema are used to process new incoming information. Each schema is likened to an index card for the brain in which experiences are processed and filed away for future use. When confronted with a new experience, the person mentally “flips through” the existing schemata in an effort to make sense of that particular experience. The psychological activity has been described as the process of assimilation and accommodation (Wadsworth, 1989; Piaget, 1997).

Assimilation is the process by which the individual integrates new experiences into the currently existing schemata or pattern of behavior and can be viewed as the cognitive process of placing new stimuli into existing schemata. Accommodation is the creation of new schemata or the modification of old schemata to accommodate new experiences. Accommodation occurs when an individual attempts to fit new experiences into existing schema, and sometimes this can not be done. Sometimes a new experience cannot be placed into an existing schema because there are no pre-existing schema in which the new experience easily fits. When this situation occurs, accommodation can occur in one of two ways: an entirely new schema may be created for the new experience, or an existing schema may be modified so that the new experience will fit into it. In essence, accommodation is the creation of new schemata, or it is the modification of pre-existing schemata. Both processes result in the development of new cognitive schemata (Wadsworth, 1989).

The intrinsic effort to maintain equilibrium, or equilibration, serves as an essential component in promoting cognitive growth for the individual. Equilibration is the process
of finding balance, or comfort, in the face of new experiences. New experiences cause an imbalance, or disequilibrium, in the individual’s cognitive make-up, thus motivating the individual to incorporate the new experience into their cognitive structure (Wadsworth, 1989).

Cognitive developmental theory begins with the assumption that human beings comprehend most effectively those stimuli that are most closely matched to their current level of psychological complexity. Restated, this means that individuals can mentally handle those situations and events which their current psychological makeup will allow them to handle. According to theory, human growth and development is possible across the life span of the individual (Rest & Narvaez, 1994). The individual’s potential and capacity to learn and grow does not cease at any given age. Further, higher levels of cognitive development allow human beings to maintain effective functioning in more complex environments.

The theory assumes that the human motivation towards competence and mastery is intrinsic; human beings actively seek to make meaning of their lived experiences rather than being passive recipients of the events which take place in the environment. This lived experience aspect has been referred to as phenomenalism, and implies that an individual’s actions can be best understood within the context of that particular person’s conscious experience (Gielen, 1998). Cognitive development takes place in stages or schemas (Rest, Narvaez, Bebeau, & Thoma, 1999), where each stage or schema represents an individual’s currently preferred style of comprehending the environment.

Stage growth refers to a qualitative, as opposed to quantitative, transformation. Cognitive stages imply that human thought and action come about in qualitatively
different stages, which are invariant, and that this human behavior comes to be in developmentally higher stages (Gielen, 1998). People at different stages of growth and development will describe their world and experience differently from one stage to the next. Stage growth is hierarchical and sequential. Higher stages represent more complex levels of cognitive processing than do lower levels, and growth is hypothesized to proceed from the less complex levels to the more complex levels. Growth is sequential in that one stage builds directly on the experiences of the prior stage of development. This structuralist quality implies that organized patterns of mental operations are present which show developmental regularity and cross-cultural generality.

The direction of the developmental sequence is invariant and irreversible; that is to say, this stage growth is unidirectional and step wise. Individuals cannot skip certain stages in the growth process. Furthermore, once an individual has achieved the level of cognitive development defined by a particular stage, that individual will not return to the modal functioning of that previous level. Nonetheless, human growth and development is not automatic. Growth depends on an interaction between the individual and the environment. Geilen (1998) indicates that experiences such as role taking are necessary in order to provide the individual with an idea not only of the self, but of others as well, both interacting in a common environment. An individual needs certain significant experiences at certain times in the lifespan to enable a change from lower levels to higher levels of development. An individual will cease to grow without the significant experiences, thereby cutting off that person's developmental potential (Duska, 1975, Sprinthall, 1978). This interactionism between self, others, and the environment
promotes growth as a result of active participation in a common environment (Gielen, 1998).

Research provides evidence for a relationship between stage and behavior (Rest & Narvaez, 1994; Rest, et al., 1999; Rim, 1991). Hunt (1975) asserts that behavior is a function of the experience and level of cognitive complexity occurring at the same time, which he termed the Behavior-Person-Environment Paradigm. Stage level does not determine behavior, but it heavily and consistently influences the behavioral choices a person makes in the environmental context. Further, cognitive development involves physiological and psychological transformations. The rate of physiological development is related to the rate of psychological development. Maturation effects brain growth and development, as do environmental influences.

Stage growth is domain specific. Domains refer to the major aspects of being human, such as thinking, feeling, possessing values, relating, and understanding the experiences of others. Particular domains to note are Hunt’s (1975) Conceptual Complexity, Kohlberg’s Moral Development and Loevinger’s Ego Development. Domain growth in one area does not automatically equate to growth across all domains, thus, the individuals level of development cannot be generalized from one domain to the other (Sprinthall & Collins, 1984).

Stage definition is modal as opposed to fixed in nature. An individual is not completely in one stage at any particular instance. Sometimes people will function one stage higher or one stage lower than their preferred level of cognitive development. The modal stage of functioning is representative of the individuals currently preferred style of behavior, not a fixed state or condition of behavior (Sprinthall & Collins, 1984). Further,
cognitive development is universal across cultures. Cognitive development among individuals is upwardly invariant, sequential and without regression regardless of cultural setting (Kohlberg, 1971; Rest, Narvaez, Bebeau, & Thoma, 1999; Piaget, 1997; Snarey, 1985). No gender differences in cognitive development have been shown to be significant in the literature (Duska, 1975; Nassi, 1981 Rest, Narvaez, Bebeau, Thoma, 1999; Rest & Narvaez, 1994).

Promoting Cognitive Development through Deliberate Psychological Education

Growth and development can occur, but an environment must be designed to include specific experiences, tasks, and opportunities in order for development to occur. The Deliberate Psychological Education approach assumes that cognitive development can be stimulated in an adequate learning environment (Morgan & Morgan, 1998). The Deliberate Psychological Education method describes five specific conditions for growth that must be present in the learning environment in order for growth and development to occur (Sprinthall & Thies-Sprinthall, 1983). First, conditions must allow for a significantly new role taking experience. These new experiences must stretch the individuals current level of functioning beyond the current comfort level, but this stretch cannot extend too far beyond the current comfort level. If that occurs, a miseducative experience is likely. Second, careful and continuous guided reflection must be provided. Opportunities for feedback and discussion of these new experiences are necessary in order for the learner to fully make sense of the new experience. Third, a balance of real-life experiences and reflection must be found. Too much of an overwhelming experience can be miseducative. Adequate levels of reflection are necessary and in order for the reflection to be adequate, it must provide learners with a regular opportunity to reflect on
their experience in a supportive environment. Excessive amounts of experience alone will not provide the optimum reflection necessary for growth to occur. Fourth, this approach must be provided on a continuous basis consistently over a six to twelve month basis in order for optimum growth and development to occur (Sprinthall & Mosher, 1978). Lastly, a combination of support and challenge must be present. Challenging situations and experiences must be delivered in unison with enough support in order to ease the transition from old systems of thought and behavior to their new ways of understanding and making sense of the world (Sprinthall & Thies-Sprinthall, 1983).

**Cognitive Development and Coping**

Barrett and Campos (in Cummings, Greene & Karraker, 1991) discuss cognitive development and its role in stress and coping in an individual. They state that cognitive development increases a) the number and variety of personal responses to a stressful environment, b) the number of aspects in a given environmental situation that can be appreciated by an individual, c) the variety and number of coping responses available to an individual in a given situation, and d) the individual’s ability to modulate emotional reactions in given situations. They summarize by suggesting cognitive development contributes greatly to an individual’s breadth and complexity of emotional responses.

This study is intended to investigate the relationship of cognitive development and compassion fatigue in emergency response personnel. At this point, after a discussion of the philosophy of cognitive developmental theory, I will re-emphasize the hypothesis that guides this new direction in addressing the problem of compassion fatigue, which is that higher levels of cognitive development will correlate positively with lower levels of compassion fatigue in this occupational group of workers. As noted earlier, cognitive
development is not measured generally. Rather, it is measured according to various and specific domains of human development. The specific domain of cognitive development that will be utilized in addressing this problem is Kohlberg's Theory of Moral Development.

Kohlberg's Theory of Moral Development is relevant because of the inherently moral aspect of emergency response work. The moral forces involved in this profession are prosocial in nature. Mayberry (1986) notes that the moral/ethical issues faced by nurses and caregivers seem to increase in relation to the changes in society. Crisham (1981) describes caregivers as consistently making moral decisions in relation to patient care; these decisions impact the lives of others. Linton (1995) states that one common trait that is consistent among emergency workers is the desire to help others, regardless of the circumstances. Such people help others at great personal risk, even though these risky circumstances could ultimately be avoided. Any citizen could perform this way on rare occasions, but emergency response personnel opt to act this way on a routine basis (Linton, 1995).

The genesis of the aforementioned prosocial behavior rests in the capacity for vicarious emotional responding, where the intense emotional concern for the plight of others leads one to help those in distress. Dispositional empathy is a stable predictor of prosocial behavior. Prosocial behavior reflects prosocial persona goals that motivate emergency responders to engage in actions that promote another person's well-being (Linton, 1995). Snyder and Omoto (1992) found that emergency response personnel view the opportunity to be socially responsible and help others is the primary reason for their
professional role. This prosocial disposition compels them to remain in their work for the sake of future victims who will need them (Linton, 1995).

Kohlberg’s Theory of Moral Development

Many authors have written of Kohlberg’s Theory of Moral Development including Rich and DeVitis (1985), Rest and Narvaez (1994), Puka (1994), Sprinthall (1994), Wadsworth (1989), and Gielen (1998). Kohlberg’s research extended the scope of cognitive developmental theory by including such areas of social process as imitation, identification, gender identity, social attachment, and moral reasoning. A central assumption regarding moral development is that as one’s cognitive developmental level increases, the individual experiences qualitative changes in his/her worldview (Gielen, 1998).

This general definition of morality in the social sciences has come to mean values, rules, and actions that are the preferred ways of acting in any given society. Kohlberg, however, suggests a more precise, specific approach to understanding morality. For Kohlberg, the moral domain encompassed not only thoughts, feelings, and actions, but the process of moral reasoning as well. For Kohlberg, it is this moral reasoning that gives behavior a specifically moral quality (Gielen, 1998).

Gielen (1998) further elaborates on the process of moral reasoning by stating that moral reasoning focuses on normative judgments and centers on what is right or obligatory in a certain dilemma. Moral reasoning has more to do with weighing values than with sheer facts about a dilemma. Moral judgments arise from this moral reasoning process, and the judgments tell us what we should do whenever conflicting opinions arise. These moral concerns center on issues of fairness and justice.
Kohlberg's noted three areas of particular justice when theorizing about moral reasoning. These three areas are distributive justice, commutative justice, and corrective justice. Distributive justice takes into consideration the way in which a society, organization, or entity distributes honor, and wealth based upon equity, special circumstances, or merit. Corrective justice considers unjust transactions and the ensuing problems of retribution and restitution. Commutative justice considers contracts and exchange agreements among people in society (Duska, 1975).

Frankena (1973) describes four types of moral reasoning. First, there is deontic reasoning, which includes judgments concerning rights and duties. Second, there are aretaic judgments, which include making judgments about the moral worth and actions of individuals. Third, there are judgments regarding the ideals of the good life, and lastly, there are meta-ethical judgments which center around the ultimate nature of morality. Kohlberg's theory specifically describes the development of the individual's deontic reasoning. An individual's sense of fairness and justice from a universal perspective form the core of morality (Gielen, 1998).

Like the domains of Ego Development of Loevinger, The Conceptual Complexity of Hunt, and Fowler's Faith Development models, Kohlberg's Theory of Moral Development is best explained as a stage based model. Each stage describes and individual's level and ability of moral reasoning. Kohlberg's model consists of three stages and six levels. Kohlberg delineated the stages of moral development among the following levels and stages (Duska, 1975).
**Stages of Moral Development**

*Level 1 – Pre-conventional Reasoning*

At this level, moral value lies in external, quasi-physical happenings or in quasi-physical needs, rather than with other people or societal and universal standards and norms. Reasoning comes from the standpoint of a concrete individual actor who follows rules in an effort to avoid trouble, satisfy needs, and maximize interests (Gielen, d.u.).

*Stage 1 – “Might Makes Right” or “Heteronomous Morality”*

At this, the first stage, a fear of being punished and an obedience to authority guide moral reasoning. The individual focuses totally on their individual needs and desires. Differing viewpoints are not clearly recognized or understood. This egocentrism leads the individual to focus solely on getting needs met in a way that will avoid pain and punishment. At this stage, the individual is often impulsive and has a short attention span. Only one point of view can be tolerated at a time. There is no differentiation between the moral value of life and its physical or social value (Kohlberg, in Mischel, 1971).

*Stage 2 – “Tit for Tat” or “Individualism and Instrumental Exchange”*

At this stage, the individual has a naively egoistic orientation towards the self in society. The individual still avoids pain and punishment, but behavior is guided by the prospect of personal gain. There exists a naïve awareness of other’s needs in regards to the individual’s needs. The individual has a basic idea of exchange and reciprocity in regards to involvement with others; give and take marks interaction with others. An awareness that others may have a point of view begins to emerge. The individual at this stage is often opportunistic, impulsive, and manipulative. Blame is externalized. The
value of human life is seen solely as instrumental to the needs of life's possessor or to others. The decision to save a life is made by the possessor of that life.

**Level 2 – The Conventional Level**

At the conventional level of moral reasoning, the individual focuses on doing what is right and good and in living up to the expectations and demands of others. The individual willfully subordinates herself to societal obligations and expectations.

**Stage 3 – “Mutual Expectations and Interpersonal Conformity”**

At this stage, the individual is most fearful of group rejection and seeks to behave within group guidelines and norms. Relationships are key. There is an intense need for group acceptance and belonging. The viewpoints of institutional or societal entities are neglected. The orientation is towards conformity to stereotypical images of role expectations. A superficial niceness is characteristic of the individual’s interaction with others. The value of human life is based on empathy and affection of family members or other group members.

**Stage 4 – “Law and Order Orientation” or “Social System and Conscience”**

At this stage, the individual exhibits a total trust and belief in authority. As a result of this belief in authority, the individual believes in and follows the rules authority. There is an awareness the self in relation to the group and considers the effect of his/her actions on the larger system. An orientation towards doing one’s duty in order to maintain social order guides moral reasoning at this level. The person is able to articulate personal stances and ideas at this stage. Life is perceived as sacred relative to its place in a categorical moral or religious order of rights and duties. The value of life is still dependent upon serving the group, the state, or God.
Level 3 – The Post-Conventional Level

At the post-conventional level, moral value and reasoning lies in conformity by the individual to shared standards, duties, and norms. Recognition of abstract principles of freedom and equality are key. There is a separation of the self from others. Transcendent principles apply to all of humanity.

Stage 5 – “Social Contract Orientation”

At this stage, an awareness of individual and social concerns serve to guide moral reasoning and decision making. The social contract relies on principles of trust, liberty, and equality. The individual recognizes an arbitrary element in rules and expectations. A person reasoning at this level begins to feel guilt for the consequences of his/her actions and is able to self-criticize. Long term goals and ideals replace impulsive actions. Duty is defined as a contract between self and the rights of others. The majority will and welfare guides action rather than individual concerns. Human life is valued in terms of its relation to community welfare and in terms of being a universal human right (Kohlberg, 1971). The respect for the basic right of life is separate from respect for life in the social-moral sense. The value of the independent human life is not dependent upon other values.

Stage 6- “Universal Ethical Principles Orientation”

An orientation towards conscience as a directing agent guides moral reasoning at this level. Principles of logical universality and consistency guide actions. Decisions are based on principles of democratic justice, toleration, and respect for autonomy, as opposed to authority are elements of this type of moral reasoning (Sprinthall, 1998). The moral value of human life is more important than the right to live as a human. This stage
marks the highest point of moral reasoning in Kohlberg’s framework. This stage is largely theoretical in nature and has not been empirically justified. This “pure essence” of justice has proved elusive (Duska, 1975; Kohlberg, 1971; Snarey, 1985).

*Higher is Better*

Higher levels of cognitive development in emergency response personnel are desirable for a number of reasons. Higher levels of moral development should enable the professional to respond to caregiving situations in a just and fair manner. Gibbs (2002 and Hoffman (2002) state that higher levels of empathic understanding will enable the caregiver to respond in an even more determined manner. Empathic overarousal should not negatively impact those functioning at a higher level of empathic understanding (Gibbs, 2002).

Rest and Narvaez (1994) present evidence that “higher is better” in such diverse populations such as accountants, nursing, journalism, and medicine. Duckett and Ryden (in Rest and Narvez, 1994) revealed that DIT scores are a strong predictor of clinical performance in nursing students. Ponemon and Gabhart (in Rest & Narvaez, 1994) found that auditors (accountants) with low DIT scores were more likely to violate rules than those with higher DIT scores.

Interestingly enough, individuals themselves say that “higher is better.” As people reach new, higher levels of awareness and understanding, they perceive their old ways of thinking as too simplistic (Rest & Narvaez, 1994). When individuals have a choice between two distinct stages, they prefer to operate at the higher level of understanding.
Evidence of "higher is better" is also evident in the fact that higher scores on the DIT are correlated with other developmental measures such as those developed by Loevinger (Rest et al., 1999; Rest & Narvaez, 1994). DIT scores are also highly correlated with measures of reflective judgment, ethical reasoning inventories, dental ethical sensitivity tests, and various aptitude and achievement tests (Rest et al., 1999). Further, Rest, et al., (1999) cite current research that links higher scores on the Defining Issues Test to various prosocial behaviors such as community involvement and civic responsibility. Rest et al., (1999) provide additional reviews of research that link higher DIT scores with job performance, clinical performance of medical interns, and professional behavior in doctors, teachers, and physical therapists. Roodin (1984) found consistent links between higher levels of moral reasoning to more affirmative coping skills in young, middle aged, and older adults.

Rest et al., (1999) report that moral comprehension studies substantiate the idea that "higher is better." Moral comprehension relates to one's ability to comprehend and understand stage specific moral arguments. Individuals with higher stage comprehension are more capable of understanding lower stage reasoning, but individuals with lower stage reasoning lack the ability to understand higher stage statements and situations. As the ability to understand and comprehend more complex moral statements increases, new ways of thinking and reasoning are possible. As individuals outgrow simple ways of reasoning, they recognize the old ways to be insufficient (Rest et al., 1999).

A Neo-Kohlbergian Approach to Moral Development

Rest, Narvaez, Bebeau, and Thoma (1999a, 1999b) indicate that recent criticism of Kolbergian theory justifies a need to extend and modify Moral Development Theory to
include issues of micromorality, as well as issues of macromorality. Micromorality is concerned with everyday interactions among and between people. Examples of micromorality issues include common courtesy and interaction, acting in a decent manner, caring in the context of intimate relationships, being on time for appointments, and responding empathically to others. Macromorality is concerned mostly with the behavior of the individual and the manner in which that behavior impacts the structure of society and public policy. Issues related to macromorality arose during the McCarthyist era of the 1950’s, the culture wars between progressivism and democracy, and during the founding of this country and the writing of the Bill of Rights. Most of the criticism of Kolberg’s original theory suggests that it focuses entirely on macromoral issues and denies the existence of micromoral issues (Rest, Narvaez, Bebeau, & Thoma, 1999).

An extension of moral development research is further justified by additional criticisms discussed by Rest, Narvaez, Bebeau, and Thoma (1999) and include the concept that moral judgment is not the only process in motion when morality is being assessed. More specifically, the authors suggest that a Four Component Model of moral behavior provides justification for an extension of Moral Development research. The Four Component Model (Rest & Narvaez, 1994, Rest et al., 1999) suggests that in addition to moral judgment, the concepts of moral sensitivity, moral motivation, and moral character all play a role in moral behavior and psychology. Moral sensitivity is related to interpreting the situation and having an awareness of how our actions and decisions will affect others. Moral sensitivity involves being aware of alternative possibilities and how acting on each of those possibilities will likewise affect others. Considering multiple scenarios and the consideration of cause/consequence implications
are all related to moral sensitivity. Moral judgment is the mental and cognitive processes of deciding what is right or wrong in a given situation and is the focus of Kohlberg’s research. Moral motivation is related to the importance of competing moral values and other held values. Other values such as self-protection may sometimes outweigh or impede doing what is morally right in a given situation. Moral character is related to one’s perseverance and strength of character when acting in a morally just manner. It is possible that an individual lacking moral character may not have the will or determination to act in a morally just way (Rest & Narvaez, 1994).

An additional criticism is related to Kohlberg’s focus on developmental stages. Kohlberg advocated for a hard stage conceptualization regarding growth and development. In these stages, individuals progress in a step-wise, irreversible, manner towards higher developmental stages. Each higher stage builds upon the previous stages during this growth period. Critics note several points when criticizing the hard stage model. Specifically, there are often multiple ways of conceptualizing any given situation, and secondly, change is better depicted as a gradual series of overlapping thought processes as opposed to hard stage conceptualizations of any given scenario (Rest et al., 1999).

The Neo-Kohlbergian approach conceptualizes growth in schemas, as opposed to hard stage growth. Schemas are general knowledge structures residing in long-term memory and are formed as people recognize similarities in stimuli. The function of schemas guide attention to new information and provide pathways for additional learning and integration of new information. Three distinct types of schema are noted. Person schemas are related to individual characteristics, event schemas are related to behavior.
and action in certain situations, and role schemas are related to expected behaviors based on position, such as firefighter, cowboy, and professor (Rest et al., 1999). The Neo-Kohlbergian approach emphasizes moral schemas in lieu of Kohlberg’s moral stages. Moral stages are focused on abstract, impartial principles and suggest a loyalty to those principles as opposed to loyalty to individuals. Three levels of abstraction are necessary when assessing moral development. The most abstract level, such as that provided by Kohlberg, the intermediate level, and the specific level. These intermediate constructs include due processes and intellectual freedom (Rest et al., 1999). More specific levels include concrete codes of ethics which specifically direct and guide behavior.

Kohlberg’s theory has been criticized for too narrowly focused on justice and neglects other aspects of morality such issues especially the caring orientation noted by Gilligan (1992). Gilligan stated that care and justice are alternatively developing along separate pathways and are seemingly separate at times. Rest et al., (1999) consider care and justice to be only a few of the issues that must be a part of any comprehensive theory of morality.

Kohlberg’s Theory of Moral Development originally suggested a Stage 6 level of postconventional thinking. This Stage 6, the highest level of moral judgment is largely considered hypothetical as it is rarely present in empirical studies involving moral development. For this reason, Kohlberg eliminated Stage 6 from his scoring system. There is also a lack of empirical data which supports Stage 5 postconventional thinking as well. The lack of postconventional reasoning found in empirical studies using Kohlberg’s model has opened up Kohlberg’s theory to considerable criticism.
The Neo-Kohlbergians differ with Kohlberg in respect to assessment of morality also. Kohlberg’s original assessment interview, the Moral Judgment Interview, presented subjects with several moral dilemmas, asked for them to solve the dilemmas, and asked participants to explain the reasoning behind their decisions. The results are then transcribed and scored for stage, using the accompanying 800 page scoring guide. This test is considered to be a production task, in which respondents are expected to produce justifications for their responses. Rest et al., (1999) suggest the use of the Defining Issues Test (DIT) as an alternative method for assessing moral judgment reasoning. The DIT is a paper and pencil test that presents six dilemmas to test takers. Each scenario is followed by 12 items presenting issues to explore that are relevant to the prior scenario. The subjects task is to rank the 12 items in terms of their importance in making a decision about the dilemma. The respondent is to rate the statements in order to their importance in making a moral decision about the given dilemma. After rating the 12 items, the respondent is to consider all 12 questions again, and choose the four most important statements in regards to making a moral decision regarding the given dilemma situation. Ratings and rankings render a participants score on the DIT. The most used score from the DIT is the P-score. The P-score is the weighted sum of ranks for the postconventional items, which are related to Kohlberg’s Stages 5 and 6. This test is regarded as a recognition task, and is thought to have potential advantages over a production task, such as the MJI.

In production tasks, explicitly expressed ideas are credited and tacit understandings of the moral decision scenario are not given credence. A production task therefore, underestimates one’s understanding of the situation. The recognition task
(DIT) places less of a strain on an individual’s verbal ability and stresses. The responses from a recognition task are only open to the subtleties of the individual, while responses to a production task are open to ambiguity from three sources: respondent interpretations, interviewer interpretations, and scorer interpretations. Recognition tasks offer more control of the testing situation and respondents are given concrete requests for the needed information. Finally, the DIT, as a recognition task, is much more convenient. A trained judge is not needed to score the completed test, test takers classify their own reactions to given stimuli, and computerized, objective scoring is available for the DIT (Rest et al., 1999).

*Moral Development and Compassion Fatigue*

The construct of compassion fatigue has been described and the principles behind that construct have been discussed. The theories of Cognitive Development and Moral Development have been described as well. How do compassion fatigue and moral development relate to each other within the context of emergency response work? The following section will address that question and provide further justification for this study. Literature regarding moral development in relation to stress, trauma, coping, and caregiving will be discussed. No empirical studies have investigated the relationship between compassion fatigue and moral development and many of the following articles come from the nursing and PTSD literature. Lonky, Kaus, and Roodin (1984) suggest that moral development is wrought with dilemmas regarding the consideration of the human condition, an aspect of emergency response work that is undeniable. While no studies have dealt directly with emergency response professions, existing research can be inferred to apply to the specific population under examination in this study.
As Figley (2002) theorizes, compassion fatigue is heavily dependent upon the helper's empathy level. Gibbs (2002) discusses empathy in the context of moral development, thus, its impact on compassion fatigue. The author describes empathy in the context of a caregiving situation and describes how moral development impacts empathy, empathy being a central aspect of compassion fatigue, is summarily impacted in this aspect by cognitive/moral development.

Gibbs (2002) describes empathy as “the spark of human concern for others, the glue that makes social life possible.” More specifically, empathy is defined as a vicarious response to others: it is an affective response appropriate to someone else’s situation rather than one’s own. Gibbs (2002) goes on to explain that humans are empathically predisposed to help another human, especially when no other person is around to help.

Empathy can be classified in a hierarchical manner much like cognitive development. Higher levels of empathy are associated with higher levels of cognitive development and thus can be assumed to coexist. The two major levels of empathy are 1) primitive modes i.e. the less developed and 2) mature modes i.e. more advanced, complex levels of empathy. The primitive modes are marked by such simple acts as mimicry, classical conditioning, and direct association or empathy by association. The mature modes of empathy are marked by mediated association and social perspective taking.

Gibbs (2002) explains how empathy is limited in individuals. Empathy is limited primarily by “empathic overarousal”. That is to say that overly intense or horrible instances of distress (such as mass casualty incidents and natural disasters) can create an experience so overwhelming to the observer that the observer’s empathic distress transforms into a feeling of personal distress. The distressed helper may then shift to a
more egoistic, protective drift and actually avoid the person in distress. This level of
distress can actually exceed that of the victim and result in compassion fatigue (Gibbs,
2002). This condition presents implications for those in emergency response professions:
empathic overarousal can prevent a professional helper from doing his/her job.

Empathic overarousal does not always prevent a helper from providing the
assistance required in a stressful situation. Gibbs (2000) indicates that in relationships in
which empathy, love, or role demands (that of an emergency response professional)
make one feel compelled to help, empathic arousal may actually intensify rather than
destroy the focus on helping the victim. In cases where this intensification does not occur,
empathic distress must be reduced. Gibbs (2002) suggests three specific ways to address
this empathic distress. First, the author suggests temporary defensive strategies such as
distraction techniques or relaxation techniques. Secondly, the author suggests the
attainment of a belief in self-efficacy or a belief that one has the ability and skill level to
render aid to a suffering person. And third, Gibbs (2002) suggests the most important
technique relevant to this study. He suggests that higher moral principles should be
fostered. The broader scope or abstract quality of moral principles can help the
empathizer to decenter from the victim’s situation, and thus respond with a more
appropriate level of empathic distress.

Ketefian (1981) examined moral reasoning and behavior in practicing nurses in a
New York Hospital. The author used the Defining Issues Test (Rest, 1976) as a measure
of moral development and the Judgments about Nursing Decisions in this investigation.
Her main goal was to investigate the following hypotheses. 1) There is a positive
relationship between moral reasoning and knowledge and valuation of ideal moral
behavior in nursing dilemmas and 2) there is a positive relationship between moral reasoning and nurse’s perception of realistic moral behavior in nursing dilemmas.

Finding of the study supported the first hypothesis ($r=.28, p=.01$) and the second hypothesis ($r=.19, p=.05$). Additional analyses showed significant difference among educational levels as well. Professionally prepared nurses had higher levels of moral reasoning than did nurses trained at a technical facility.

This study, while limited in its generalizability, did examine 79 nurses and their moral reasoning level. A return rate of 50% is noted by the writer. This study nonetheless has implications for the emergency response community. It can be argued that emergency response personnel deal with essentially the same issues of care and occupational similarities. Furthermore, it can be argued from this study that the level of training may effect the moral reasoning of emergency response personnel as.

Crisham (1980) investigated moral judgment in nursing dilemmas as well. She notes that as nurses participate in decision making about patient care, they make moral judgments that have an impact on others, thus investigating moral reasoning level is important. In situations which have no clear cut right or wrong answers, nurses face typical moral dilemmas, therefore, nurses constantly grapple with moral decisions.

The purpose of Crisham’s (1980) study was to examine moral development in nurses of various educational training level and to assist in the development of a nursing dilemma instrument. Subjects included staff nurses from five large metropolitan general hospitals. The total number of respondents was not reported.

Findings showed that the level of education was the most powerful predictor of moral development among this sample. Associate Degree nurses had the lowest levels of
moral development, while Master's level nurses exhibited the highest level of moral
development. Length of experience had no significant impact on moral development,
however. A "milieu effect" was discussed by the author, in that some responses seem to
be tempered by situational or organizational pressures. Rest (1979) suggested that moral
judgment may be influenced by enriched versus impoverished environments. In the
enriched environment, individuals are encouraged to examine their views more
systematically and thoroughly. This process leads to more complex and advanced
thinking, or principled thinking (Crisham, 1980).

Crisham's study is applicable to the current study for several reasons. First of all,
the concern over level and type of professional education impacts moral development and
reasoning. Among emergency response personnel, a wide variety of training settings are
utilized, and thus could be related to this study. Secondly, the "milieu effect" of the
organization presents an interesting situation to investigate with emergency response
personnel. Do emergency response personnel feel limited or restricted by the organization
and does this struggle impact cognitive development in this study's sample? Thirdly, as
nurses make moral decisions regarding patient care, so do emergency response personnel.

Mayberry (1986) investigated the level of moral development in relation to
education, experience, age, and setting in a sample of 167 nurses. Moral development
was assessed using the Defining Issues Test (Rest, 1976). In this study, Mayberry (1986)
discussed the moral/ethical dilemmas faced by nurses as a daily occurrence. Sometimes
challenges are routine, while sometimes, situations are more complex. The moral issues
faced by nurses seem to increase in direct relation to the rise in technology and social
change. Patient rights, the right to self determination and informed consent present
challenges to the modern medical scene. Allocation of scarce resources have added to the complex link connecting patient care with care giving. In addition to these things, policy and directives made by administrative personnel often conflict with providing ultimate levels of care. Thus perpetuating conflict between the organization and caregivers.

Often the situations faced by nurses have no solution and there is often a lack of clarity regarding which ethical path will lead to the best decision. When the individual dynamics of moral dilemmas are mixed with the larger social systems of policies, rules, and norms, the potential for active moral conflict arises (Mayberry, 1986).

As in the Ketefian (1981) study, education showed the most powerful and consistent relationship with moral development. Years of formal education were positively correlated with principled decision making. Fewer years in practice were shown to be positively related to principled reasoning ability. More experienced nurses were shown to be better at confronting real-life situations. Again, the work place highly influences moral development. Administrative policies were shown to impede moral development, thus lending credence, once again, to the “milieu effect” mentioned previously.

Finding of this study can be directly related to emergency response personnel in that EMS personnel are confronted with the same complexities, scarce resources, and administrative imposition as those in the nursing field.

This study yielded many important effects of various demographic variables on moral development in a similar target population as the present study. Thus, findings and implications may be inferred from Mayberry’s (1986) sample to the sample in this research. The study is weak in that no specific statistical data is reported, but the study
does speak to the need of administrators to address the importance of ethical decision making among caregivers.

Moving from the care giving aspect of moral development to the impact of moral development on stress and trauma, Berg, Watson, Nugent, Gearhart, and Juba (1994) studied the impact of PTSD scores on moral development in a sample of war veterans using the Defining Issues Test (Rest, 1976). The study was inspired by Kohlberg's suggestion that individuals that function at intermediate levels of moral development are particularly suited to combat behavior. The authors note that this suggestion raises the possibility that individuals at higher and lower stages of moral development might have more severe emotional reactions to trauma than those at the conventional level.

The findings of this study suggested that high moral development increased the severity of PTSD symptoms that result from moderate levels of combat exposure. Findings also suggest that moral immaturity may protect against PTSD symptoms after trauma of limited severity, but has less of a protective effect as trauma increases.

The small sample size limited this study's generalizability and suggests the need for replication studies with a larger sample. A more diverse sample would be more helpful as well; all in this sample were male. Also, this research was conducted post-trauma, several months after the precipitating events.

Despite its weaknesses, this study has several implications for the study at hand. It can be argued that the trauma experienced by soldiers is somewhat similar to the trauma experienced by emergency response personnel. Additional implications for the theoretical assumption that "higher is better" are generated here as well.
As noted earlier, no studies have directly investigated the relationship between moral development and compassion fatigue in emergency response personnel, however, research from the nursing and military professions can be utilized effectively to show similar effects on the proposed sample in this study though. The impact of moral development on stress, trauma, and ethical decision making in the reviewed articles adds to the justification for the study presently proposed. More importantly, the lack of specific investigations into the impact of moral development on compassion fatigue point to the need for this study overall.

Summary

This chapter has provided an introduction to Cognitive Developmental Theory and more specifically, Kohlberg’s Theory of Moral Development. The construct of Compassion Fatigue has also been introduced as has the effects of Compassion Fatigue on emergency response personnel. A discussion of the connection of moral development and compassion fatigue has shown insight into how these two constructs are related. A brief review of the literature was provided so as to give the reader some insight into each specific construct mentioned. The following chapter will provide the research methodology for this proposal, and specific research hypothesis will be detailed.
CHAPTER THREE
Methodology and Procedures

Population

The target population for this research proposal is emergency response personnel. More specifically, individuals in the occupational fields known as Emergency Medical Technicians, Paramedics, Firefighters and First Responders are the target population. The Occupational Outlook Handbook (2003) indicates that there are 172,000 Emergency Medical Technicians and Paramedics working today. The most recent count of paid and volunteer firefighters is 258,000. It is stated that over the next decade, this number will increase significantly, and volunteers will be gradually replaced with more paid professional firefighters (Occupational Outlook Handbook, 2003).

Sampling and Data Gathering

The sample size for this study is 91 individuals employed in the aforementioned emergency response professions. Data were gathered through two separate procedures. The first method is through a randomly selected list of names from the National Association of Emergency Medical Technicians. Individuals from this list received a pre-notification post-card alerting them that they have been selected to participate in this study (Appendix A), a research packet containing an informed consent form (Appendix B), a demographics form (Appendix C), the Professional Quality of Life – Revision III (Appendix D), and finally, the Defining Issues Test – Short Form (Appendix E).

Second, non-random sampling by availability was used to collect data from members of local rescue squads and fire departments. Presentations were made at regular meetings of these groups. At the time of these presentations, research instruments will be
distributed and collected. For those individuals not wishing to fill out packets at that time, instructions for returning the packets to the researcher will be given.

Participants were informed of their right to confidentiality and voluntary nature of participation in writing (SEE APPENDIX B). Protection of their privacy will be the highest concern for this researcher.

Participants in the research received a $10 Wal-Mart gift card. Participants will also be given a copy of the published research project if they so desire.

In addition, all participants received a “Thank You” card from the researcher that expressed gratitude for their participation in the research.

Instrumentation

Data were gathered by distributing an informed consent form, demographics form, The ProQOL-R-III and the Defining Issues Test – Short Form to participants. Each of these instruments is discussed in the following section.

Informed Consent

Participants received an “Informed Consent” form (SEE APPENDIX B) which advised them as to the nature of the research, its purpose, and contact information for the researcher and committee chair. Most importantly, this form advised the participant of their right not to participate in the research. Those participants in face-to-face situations will turn in this form separately from the rest of the assessments in an effort to ensure confidentiality.

Demographics

All participants were asked to complete a researcher-developed demographics form, which asked for various personal characteristics (SEE APPENDIX C). Participants
were asked to supply information regarding gender, age, years of experience, education, paid/volunteer status, perceived level of support from their respective department, and ethnicity. This information was especially useful when answering the investigative questions put forth in this proposal.

*Pro-Qol-R-III*

The Professional Quality of Life Scale: Compassion Satisfaction and Fatigue Subscales, R-III (ProQOL-CFR-R-III) was used to determine the risk for compassion fatigue, burnout, and compassion satisfaction in this sample (SEE APPENDIX D). This is a 30-item test that asks respondents to rate responses to certain questions on a Likert Scale (1-5). Items are intended to assess the impact of feelings and experiences during the past 30 days. The scale also renders scores for “Compassion Satisfaction” and “Burnout.” This is the third and latest revision of the Compassion Fatigue Self Test and is noted by the authors as being more psychometrically sound than the prior tests and reportedly does a better job of separating the problem of delineating burnout form compassion fatigue and secondary trauma.

As noted earlier, the Pro-Qol-R-III renders scores for compassion fatigue, compassion satisfaction, and burnout. The average score for compassion satisfaction is 37. High Scores start at 41 and low scores begin at 32. The average score for “Burnout” is 23. Scores above 28 are at high risk for burnout, while scores below 19 indicate a low risk for burnout. The average score for “Compassion Fatigue” is 13. Scores below 8 are considered to be at low risk for compassion fatigue, while scores above 17 indicate a high risk for compassion fatigue.
This test differs in a number of ways from the prior scales used to measure compassion fatigue. Primarily, the test is much more psychometrically sound. The authors report alphas for Compassion Fatigue at .80, Burnout alpha at .72 and Compassion Satisfaction alpha at .87. This test is much shorter than the previous measures and has actually been cut in half as compared to the previous measures of compassion fatigue. This measure shows considerable improvement on the item-to-scale statistics due to increased specificity and reduced collinearity, specifically between burnout and compassion fatigue (Stamm, 2003).

It should be noted that this test is currently in development. Reliability and validity for this particular test is somewhat minimal and should be taken into consideration when viewing results of this study. The current reference sample for this test includes over 1000 individuals from such career fields as medicine, behavioral health, law enforcement, and the social services.

*The Defining Issues Test*

The Defining Issues Test – Short Form as a measure of moral development reasoning was used for this study (Rest, Thoma, Davison, Robbins, & Swanson, 1976). It is a semi-projective instrument which is intended to give information about the process by which people judge what ought to be done in moral dilemmas (Mental Measurements Yearbook, 2003). It is an objective test of moral judgment derived from Kohlberg’s Theory of Moral Development and should take approximately 20 minutes to complete.

The DIT is reported as an easy to use instrument that is more user friendly than other tests of moral judgment, which often depend on lengthy interviews for assessment (Sutton, 2003). Dilemmas similar to those in Kohlberg’s original interview are presented,
followed by 12 questions about each dilemma. These dilemmas present the reader with a moral dilemma. Subjects are then asked to rate how important each question is in making decisions, what their decision is, and then they are asked to rank the four most important questions (Sutton, 2003).

The test renders several scores; the most important scores being the P score and the D score. The P score is the percentage or level of principled thinking, and the D score is a composite score, which requires the use of a computer and is subsequently not used in this research project. Principled thinking or principled reasoning (P-score) is a continuous variable intended to measure the combined stage 5a, 5b, and 6 scores on the DIT Short Form. Principled reasoning is defined as the relative importance a subject gives to principled moral considerations in making a moral decision about a given moral dilemma (Rest, 1990). The score ranges from 0 to 95 with higher scores representing higher levels of moral reasoning development. The test also renders stage scores related to each of Kohlberg's 6 stages of moral development. These scores are presented as percentage of overall responses for each stage level. These other scores are computed just as the P-score is obtained and is based on weighted ranks according to stage responses. The test also includes items used for a consistency check and includes meaningless items which are intended to ensure that the respondent understands the test directions. Items are also included in the test to ensure that the participant does not "fake-high" or cheat on the test. The test requires a reading age of twelve to 13 years of age.

Sutton (2003) reports that the normative data for the DIT are very extensive. The data are broken down by educational level for junior high school to graduate students, to non-student adults. Scores on the DIT are positively correlated with education, IQ, and
age. The reviewer reports that no consistent relationship has been found with DIT scores and gender, income, or college major. The majority of the normative samples were taken from the Midwestern United States and no information is given regarding the ethnic make-up of the sample. Rest (1986) does however report cross-cultural comparisons from 15 different cultures.

Reliability for this test if reported as “good” (Sutton, 2003). Test-retest correlations range from .71 to .82 for the P (principled) index, and .67 to .92 for the Composite (D) index. For the short version, test-retest correlations range from .58 to .77 for the P index and .63 to .83 for the D index. The values for Cronbach’s alpha are .77 for the P score and .79 for the D score. Alpha values reported for the short version are .76 (P score) and .71 (D score). The Defining Issues Test-Short Version, consisting of three of the six dilemmas will be administered to participants in this study. The P scores on the two versions correlate in the low .90’s. Additionally, the short version is believed to have substantially the same qualities as the long version (Evans & Foster, 2000; Rest, 1986). While use of the shorter version in a correlational study reduces the observed correlation, the amount of the reduction is usually minor (Davison, 1979). The DIT’s test-retest reliability and Cronbach’s alpha is in the upper 70s and low 80s (Davison, 1979; Rest, Narvaez, Bebeau, and Thoma, 1999). Rest (1986) found a .05 difference in test-retest reliability (.82 to .77) and a .01 discrepancy in a measure of internal consistency (.77 to .76) favoring the six-dilemma over three-dilemma version of the DIT (Grothaus, 2003).

Support for construct and convergent validity comes from DIT scores being significantly positively related to Kohlberg’s Moral Judgment Inventory and the Comprehension of Moral Concepts test (Kohlberg, 1979; Rest, 1979 and 1994). Also,
DIT scores are positively correlated to prosocial behaviors, show gains in longitudinal studies, and show moderate increases as a result of moral education training (Rest, Narvaez, Bebeau, & Thoma, 1999). Prosocial behaviors include a concern for others and a willingness to help those in need (Mayberry, 1986). Additionally, the DIT shows discriminant validity from general intelligence, verbal ability, personality trait instruments, conservative/liberal political attitudes and social desirability measures (Rest, et al., 1999).

Criterion group validity was established using mean scores from graduate students in political science, college students, and high school students and significant differences were found among the groups. Significant upward trends over 6 years, and four separate testings ($F = 17.6, p < .0001$) for the P score are reported. It has been shown that respondents cannot “fake good” on this instrument (Sutton, 2003). Test items are included in the assessment as a check for this.

In reviews of the DIT, few areas of concern emerged (Sutton, 2003, Westbrook & Bane, 2003). The test is somewhat aged and two of the dilemmas deal directly with a detrimental historical event (the Viet Nam War). The Heinz dilemma has been circulated to the extent that it may be hard to find a participant who is not somewhat familiar with this dilemma. The absence of minority groups in the normative sample may also be problematic.

Rest et al., (1999) address several criticisms of the Defining Issues Test. Primarily, the authors suggest criticism arises out of the inability to establish validity and reliability of any construct or measure. This difficulty is increased due to operational definitions that change over time and the amount of time, energy, and resources that must
go into establishing a construct as valid. Rest et al., (1999) mention the "cycles of research" or decades of scholarly work, that have gone into DIT research. DIT research is based on 20-year-old data from the early years of research. Further, the DIT is a recognition task, and problems can be associated with these types of tasks. Participants may randomly check off items without true consideration or understanding of the response. Secondly, participants may respond to aspects of the test that are not intended by the test designers. Yet another criticism is that recognition tasks may simply overestimate a respondent's developmental level. This may occur by the reader being prompted by test stimuli that is above their developmental level.

The DIT remained the same for the past 30 years and relevant aspects of moral development have not been incorporated into this instrument. Many of the dilemmas in the DIT are somewhat dated and refer to historical events that may have faded in importance to respondents, namely the Viet Nam war and student protest movements (Rest et al., 1999; Rest, 1990). Some of the research using the DIT remains unpublished and cannot be evaluated or scrutinized. However, many researchers have continued to use this measure successfully, based on its extensive research history and strong credibility despite limitations.

The DIT Short Form was used for a number of reasons. The minimal cost associated with this instrument made the DIT an attractive choice. The instrument could be hand scored by the researcher with no need for special training or expertise in order to obtain accurate data (Rest, 1990). The DIT Short Form was also used because it can be administered in an average time span of about 20 minutes. Respondents in this study were asked to complete a number of instruments and time became an essential
consideration when seeking assistance with this research project. The possibility of research participants having to respond to an emergency crisis was a consideration during survey administration; a “quick and dirty” (Rest et al., 1999) instrument was needed for this particular collection procedure. Many respondents were asked to complete the research materials during their standard work schedule and an effort was made to disrupt that schedule as little as possible. Further, the three stories used in the short form were chosen by the test designers because they have the highest correlation of any three story set with the full 6-story DIT. The P-scores from the short version correlates .93 with the P-scores from the 6-story test (Rest, 1990).

Given that this research relied on self-report measures, the concept of social desirability responses becomes an issue. Social desirability refers to the tendency of individuals to respond in a manner that makes them look good in the eyes of others rather than to respond in an accurate and truthful manner. Research has documented the occurrence of social desirability responses in self-report measures of personality traits, attitudes, behaviors, and psychopathology (Holtgraves, 2004).

Despite the assumed presence of social desirability bias, there are a number of unresolved issues surrounding the concept. Primarily, there is debate surrounding the degree to which social desirability is actually a problem with self-report measures. Many authors argue that its impact has been greatly exaggerated. Also, the process of defining and conceptualizing social desirability remains unclear. Most measures of social desirability do not correlate very much with each other, indicating that conceptual differences exist. In summary, the pervasiveness and impact of social desirability in relation to self-report measures remains unclear (Holtgraves, 2004). While no research
has been conducted in regards to social desirability and the Professional Quality of Life Questionnaire, 3rd Revision, studies have been conducted in relation to social desirability and the Defining Issues Test. Rest and Narvaez (1994) state that scores on the DIT and social desirability scales do not correlate very highly with each other, indicating that the DIT is less prone to the effects of social desirability responses.

Research Design

This survey research investigated the impact of cognitive development (independent variable) on compassion fatigue (dependent variable) in emergency response personnel using one-way ANOVA analysis in an effort to test the hypotheses at hand. In addition, the potential impact of various demographic factors of the dependent variable were examined using simple correlational analysis and independent samples t-tests. Grimm and Yarnold (2001) report that multiple regression can be used to a) aid in predicting events and behavior and b) explain the nature of a given phenomenon. In the case of this research, analyses will be used to explain a phenomenon. Multiple regression analysis is suited to testing theoretical explanations in that one is able to gain a clearer understanding regarding the nature of a phenomenon by identifying those variables with which it co-occurs. Secondly, confidence in one’s theoretical orientation can be improved by ruling out possible alternative causal explanations. Multiple regression is also useful in controlling error due to the fact that only one analysis is needed. Error is compounded when conducting multiple analyses.
Formal Research Hypotheses

1. There is a negative relationship between Moral Development level, as measured by the Defining Issues Test-Short Form and Compassion Fatigue, as measured by the Pro-Qol-R-III.

2. There is a negative relationship between Moral Development, as measured by the Defining Issues Test-Short Form, and Burnout as measured on the ProQuol-R-III.

3. There is a positive relationship between Moral Development, as measured by the Defining Issues Test-Short Form, and Compassion Satisfaction as measured by the ProQuol-R-III.

Investigative Hypotheses

1. There is a positive relationship between Moral Development, as measured by the Defining Issues Test-Short Form, and Years of Experience.

2. There is a positive relationship between Moral Development and Age.

3. There is a positive relationship between Moral Development, as measured by the Defining Issues Test-Short Form, and Type of Training.

4. There is a positive relationship between Compassion Satisfaction, as measured by the ProQol-R-III, and Years of Experience.

5. There is a negative relationship between Compassion Fatigue, as measured by the ProQol-R-III, and perceived organizational support.

Additional Question

In addition to the specific hypothesis listed above, an additional exploratory research question was also investigated. This would include the relationship between
Paid/Volunteer Status and Compassion Fatigue/Compassion Satisfaction/Burnout, as Measured by the Pro-Qol-R-III.

Implications

Should the findings of this investigation support the aforementioned specific hypothesis, or should the investigative hypotheses render interesting and useful information, implications exist for those employed in emergency response professions and those who train and prepare them. Most importantly, if cognitive development has a mitigating effect of compassion fatigue, we can promote cognitive development through the application of Sprinthall’s Deliberate Psychological Education methodology to Emergency Response Personnel and their treatment and intervention programs.

Implications exist at the pre-employment stage. Developmental measures may become a standard practice in pre-employment screening for new employees entering the field of emergency or disaster response. It may be beneficial for employers to expect a certain level of cognitive development in their future employees. Promoting growth, through the Deliberate Psychological Education method, could possibly be integrated into pre-service or basic training programs prior to full time entry into the field in an effort to more fully prepare workers for their future in such a demanding profession.

Implications for in-service training exist also. A growth-promoting regimen may also be put into place for those individuals who have been in the field for a longer period of time. This could prepare them for future situations that may lead to compassion fatigue as they continue in the profession.
Summary

The purpose of this research project is determining the contribution that cognitive development has in relation to compassion fatigue in emergency response personnel. The detrimental impact of compassion fatigue on these dedicated workers justifies continued investigation into prevention and treatment possibilities.
CHAPTER FOUR

RESULTS

This research project was an investigation into the impact of cognitive development on compassion fatigue, compassion satisfaction, and burnout in emergency response personnel. The results of the investigation are detailed below. Information regarding sampling and data collection, demographics, and the tested hypotheses will follow.

Sampling and Data Collection

For this dissertation, data were collected in two distinct ways. A national sample was collected using survey research methods and the researcher collected data personally. A summary of each collection process follows:

Survey Research Data Collection

A national membership list, containing 1000 names, was obtained from the National Association of Emergency Medical Technicians. From this membership list, 100 members were selected at random to participate in the research project. Those selected received a pre-notification post card, inviting them to participate and asking them to complete the research instruments. One week later, the research instruments were sent to the participants.

As noted earlier, 100 members were selected to receive the research instruments. Fifty-two research packets were returned, resulting in a 52% return rate.

Personal Presentations and Data Collection

The researcher made a total of five presentations at fire departments and emergency service organizations across the Commonwealth of Virginia. Urban and rural
departments were represented. At these presentations, the research project was discussed, questions were invited, and those interested were asked to complete the research instruments at present, on location.

A total of forty-seven complete research packets were collected as a result of presentations made by the researcher.

*Total Number of Responses*

A total of fifty-two packets were obtained from the national survey sample and forty-seven packets were obtained from presentations at local departments, for a total response of ninety-nine participants. Of those research packets collected, eight packets were deemed unusable do to problems with incompleteness, inconsistencies, and lack of informed consent documents. The final sample for this research project was ninety-one participants.

*Demographics*

Demographic data were collected using a researcher designed instrument. The results of the demographic assessment follow.

*Age*

The age range of participants was sixteen years to over sixty-five years of age. Table 4.1 displays the ages of participants in this research project. The majority of respondents report that their age is between 16 and 25 years old (26.4%). The second most represented group in this sample included those who reported their age as 36 to 45 years of age (22%). One respondent was 65 years of age or older. Age ranges appear to be fairly evenly distributed or appear as expected. As the age range increases, the
numbers decrease. That is expected as well due to people leaving the field for other jobs or for retirement.

Table 4.1

*Age of Respondents*

<table>
<thead>
<tr>
<th>Valid Age</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-25</td>
<td>24</td>
<td>26.4</td>
<td>26.4</td>
<td>26.4</td>
</tr>
<tr>
<td>26-35</td>
<td>19</td>
<td>20.9</td>
<td>20.9</td>
<td>47.3</td>
</tr>
<tr>
<td>36-45</td>
<td>22</td>
<td>24.2</td>
<td>24.2</td>
<td>71.4</td>
</tr>
<tr>
<td>46-55</td>
<td>19</td>
<td>20.9</td>
<td>20.9</td>
<td>92.3</td>
</tr>
<tr>
<td>56-64</td>
<td>6</td>
<td>6.6</td>
<td>6.6</td>
<td>98.9</td>
</tr>
<tr>
<td>65+</td>
<td>1</td>
<td>1.1</td>
<td>1.1</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>91</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

*Education*

Educational attainment in this group ranged from those individuals with a GED (General Equivalency Diploma) to those who had a graduate degree. Table 4.2 displays the educational attainment of this sample. The most represented segment of this particular sample reported that they have at least an undergraduate degree (42.9%). A surprising number of respondents indicated that they hold a graduate degree (8.8%). It should be noted that one respondent was a Medical Doctor. Overall, 48.4% of this sample held less than an undergraduate degree. 8.8% held degrees from a vocational or technical school as their highest degree. It should be noted that most of the professional training given to emergency response professionals is obtained through vocational and
technical schools. Few four-year colleges offer a professional degree in emergency services. The responses indicate that a large percentage of respondents obtained their emergency service training in addition to formal education.

Table 4.2

*Valid Education of Respondents*

<table>
<thead>
<tr>
<th>Valid Education</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>GED</td>
<td>1</td>
<td>1.1</td>
<td>1.1</td>
<td>1.1</td>
</tr>
<tr>
<td>High School</td>
<td>35</td>
<td>38.5</td>
<td>38.5</td>
<td>39.6</td>
</tr>
<tr>
<td>College</td>
<td>39</td>
<td>42.9</td>
<td>42.9</td>
<td>82.4</td>
</tr>
<tr>
<td>Vocational/Technical</td>
<td>8</td>
<td>8.8</td>
<td>8.8</td>
<td>91.2</td>
</tr>
<tr>
<td>Graduate School</td>
<td>8</td>
<td>8.8</td>
<td>8.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>91</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Years of Experience*

This sample reported experience ranging from zero to over fifteen years. Table 4.3 displays the years of experience for this sample. The largest represented group in this sample are those with at least 15 years of experience (35%). Those with zero to two years made up only 17.6% of the sample. This would indicate that the majority of respondents in this study have a great deal of experience and would be able to draw a rich professional history when responding to in questions.
Table 4.3

**Respondents’ Years of Experience**

<table>
<thead>
<tr>
<th>Valid Years Experience</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2</td>
<td>16</td>
<td>17.6</td>
<td>17.6</td>
<td>17.6</td>
</tr>
<tr>
<td>3-5</td>
<td>11</td>
<td>12.1</td>
<td>12.1</td>
<td>29.7</td>
</tr>
<tr>
<td>6-10</td>
<td>14</td>
<td>15.4</td>
<td>15.4</td>
<td>45.1</td>
</tr>
<tr>
<td>11-15</td>
<td>15</td>
<td>16.5</td>
<td>16.5</td>
<td>61.5</td>
</tr>
<tr>
<td>15+</td>
<td>35</td>
<td>35</td>
<td>38.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>91</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

**Race/Ethnicity**

Table 4.4 displays the racial/ethnic makeup of this sample. 92.3% of this sample reported that they are White/Caucasian (N=84). African-Americans made up 4.4% of the sample (N=4). Those identified as Multiracial made up 2.2% of the sample (N=2), and those who are Hispanic made up 1.1% of the sample (N=1). No individuals who identified themselves as American Indian, Asian, or Middle Eastern completed the survey packet. It was the intention to collect a much more racially diverse sample, but that remains unfulfilled.
Table 4.4

Race/Ethnicity of Respondents

<table>
<thead>
<tr>
<th>Valid Race</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>White/Caucasian</td>
<td>84</td>
<td>92.3</td>
<td>92.3</td>
<td>92.3</td>
</tr>
<tr>
<td>African American</td>
<td>4</td>
<td>4.4</td>
<td>4.4</td>
<td>96.7</td>
</tr>
<tr>
<td>Multiracial</td>
<td>2</td>
<td>2.2</td>
<td>2.2</td>
<td>98.9</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1</td>
<td>1.1</td>
<td>1.1</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>91</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Employment Status

Respondents were asked to indicate whether they were paid professionals or volunteer emergency response personnel. Table 4.5 displays the employment status of respondents in this sample. 61.5% of respondents (N=56) identified themselves as being employed full-time professionals. 38.5% of respondents (N=35) identified themselves as volunteers with local emergency service agencies.

Table 4.5

Employment Status of Respondents

<table>
<thead>
<tr>
<th>Valid Employment Status</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paid</td>
<td>56</td>
<td>61.5</td>
<td>61.5</td>
<td>61.5</td>
</tr>
<tr>
<td>Volunteer</td>
<td>35</td>
<td>38.5</td>
<td>38.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>91</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
**Gender**

Table 4.6 displays the gender of respondents in this research. 72.5% of respondents (N=66) reported their gender to be male. 27.5% of respondents (N=25) reported that they are female. The number of female respondents who returned completed survey packets was much higher than anticipated.

Table 4.6

**Gender of Respondents**

<table>
<thead>
<tr>
<th>Valid Gender</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>66</td>
<td>72.5</td>
<td>72.5</td>
<td>72.5</td>
</tr>
<tr>
<td>Female</td>
<td>25</td>
<td>27.5</td>
<td>27.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>91</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

**Perceived Support**

Respondents were asked to indicate the level of general support they perceived as coming from their respective organizations. Table 4.7 displays the respondent's answers. 17.6% of respondents (N=16) report that they receive "little" support from their organization, 58.2% of respondents (N=53) report that they receive "some" support from their organization, and 24.2% (N=22) report that they receive a "great deal" of support from their organization. It should be noted that Perceived Organizational Support was not assessed using a formal research instrument, rather, this information was obtained from a question on the demographics form asking the respondents to rate their level of perceived support.
Table 4.7

*Perceived Organizational Support*

<table>
<thead>
<tr>
<th>Valid Support</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Little</td>
<td>16</td>
<td>17.6</td>
<td>17.6</td>
<td>17.6</td>
</tr>
<tr>
<td>Some</td>
<td>53</td>
<td>58.2</td>
<td>58.2</td>
<td>75.8</td>
</tr>
<tr>
<td>Great Deal</td>
<td>22</td>
<td>24.2</td>
<td>24.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>91</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Demographic Summary

At this point, the demographics of this study will be compared to the demographics profiles of studies previously summarized in this paper. Research articles reviewed for this study reported sample sizes from a single subject case study to the largest reported sample size of 835 subjects Beaton, Murphy, Johnson, Pike & Corneil, 1999; Keidel, 2002). The majority of studies used in this project report sample sizes between 66 and 173 respondents. The sample size for this study (N=91) is comparable to the sample sizes of other related studies. Few of the studies reported age related data, but those who do report majority age groups between 31 and 45 years of age (Wee & Meyers, 2003). The majority of respondents for the present study report their ages between 16 and 25 years of age, making this sample somewhat younger than other comparable studies, however, the age group that comprises the second largest group in the present study is the age grouped 36 to 45 years of age (24.2%, N=22). Demographic data related to race and ethnicity indicates that White/Caucasian respondents make up the majority of their respective samples, in some cases, making up 100% of the sample.
(Jenkins, 1997). The present study reports that 92.3% of the sample reports White/Caucasian as their race/ethnicity which makes this study comparable to other studies relating to this topic. The racial homogeneity is somewhat disturbing and is addressed in greater detail in Chapter 5. Demographics data regarding gender shows that most studies report a majority of males for their samples, as does the present sample. Some studies however, report a larger number of females than males, but those studies are in the minority. This is likewise a disturbing issue that must be directly addressed in future research. Only one other study assessed employment status on the Paid/Volunteer dichotomy (Dyregrove, Kristofferson, & Gjestad, 1996). In that study (N=104), one-half of the respondents were paid and the other one-half reported their employment status as volunteer. The present study includes 61.5% paid professional and 38.5 percent volunteer. Few studies directly assessed Years of Experience in their demographic investigation, but those studies show that their respondents report extensive work histories in the emergency response professions. In the present study, the majority of respondents report over 15 years of experience. Information related to educational attainment report many respondents who have at least a college degree as does the present study.

This study did not address some demographic data that was included in other studies. Other studies assessed marital status, rank, shift, and call volume when specifically surveying emergency response personnel. Still other researchers assessed religion, income level, and prior involvement in counseling and therapy (Baird & Jenkins, 2003; Jenkins, 1997).
Instrumentation

Respondents were asked to complete the Defining Issues Test – Short Form and the Professional Quality of Life Questionnaire – 3rd Revision (Pro-Qol-R-III) in addition to the Informed Consent form and the Demographics Form. Pertinent scores from each instrument are given below.

*Defining Issues Test – Short Form*

Scores rendered for the DIT – Short Form indicate the respondents’ level of principled reasoning, or the degree to which the person thinks about moral problems like a philosopher (Rest & Narvaez, 1994). The test renders the P-Score as a percentage of the respondents’ level of moral reasoning judgment, which has been defined by Rest (1990) as a measurement of the relative importance a subject gives to principled moral considerations in making decisions relative to moral dilemmas. Table 4.8 indicates the distribution of P-Scores for this sample. Total P-scores ranged from zero (N=2, 2.2%) to 76.6% (N=1, 1.1%). The greatest majority of respondents had P-scores of 16.6% (N=10). This indicates that all but two respondents indicated some level of principled reasoning ability or moral judgment reasoning. The mean P-score for this particular sample is 27.3367 (P-score, M=27.3367). Rest and Narvaez (1994) provide average P-scores for various groups ranging from 18.9 for institutionalized delinquents to 65.2 for moral philosophy and political science graduate students. The mean P-score for this sample places them between prison inmates (P-score M=23.5) and senior high school students (P-score M=31.8) on the continuum provided by Rest and Narvaez (1994). Moral judgment scores assessed by any method do not indicate a subject’s value as a person, ones loyalty, kindness, or sociability. Moral judgment scores assess the basic conceptual
frameworks by which an individual analyzes a social-moral problem and judges the most appropriate course of action. P-scores do not portray an individual's personality, although they do indicate an aspect of personality, they are more an assessment of adequate moral thinking in an individual (Rest & Narvaez, 1994).
Table 4.8

**P-Scores**

<table>
<thead>
<tr>
<th>Valid P-Score</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>.00</td>
<td>2</td>
<td>2.2</td>
<td>2.2</td>
<td>2.2</td>
</tr>
<tr>
<td>3.30</td>
<td>3</td>
<td>3.3</td>
<td>3.3</td>
<td>5.6</td>
</tr>
<tr>
<td>6.60</td>
<td>2</td>
<td>2.2</td>
<td>2.2</td>
<td>7.8</td>
</tr>
<tr>
<td>6.70</td>
<td>1</td>
<td>1.1</td>
<td>1.1</td>
<td>8.9</td>
</tr>
<tr>
<td>9.90</td>
<td>4</td>
<td>4.4</td>
<td>4.4</td>
<td>13.3</td>
</tr>
<tr>
<td>10.00</td>
<td>2</td>
<td>2.2</td>
<td>2.2</td>
<td>15.6</td>
</tr>
<tr>
<td>13.20</td>
<td>1</td>
<td>1.1</td>
<td>1.1</td>
<td>16.7</td>
</tr>
<tr>
<td>13.30</td>
<td>4</td>
<td>4.4</td>
<td>4.4</td>
<td>21.1</td>
</tr>
<tr>
<td>16.60</td>
<td>10</td>
<td>11.0</td>
<td>11.1</td>
<td>32.2</td>
</tr>
<tr>
<td>19.80</td>
<td>2</td>
<td>2.2</td>
<td>2.2</td>
<td>34.4</td>
</tr>
<tr>
<td>20.0</td>
<td>4</td>
<td>4.4</td>
<td>4.4</td>
<td>38.9</td>
</tr>
<tr>
<td>23.20</td>
<td>1</td>
<td>1.1</td>
<td>1.1</td>
<td>40.0</td>
</tr>
<tr>
<td>23.20</td>
<td>1</td>
<td>1.1</td>
<td>1.1</td>
<td>41.1</td>
</tr>
<tr>
<td>23.30</td>
<td>8</td>
<td>8.8</td>
<td>8.9</td>
<td>50.0</td>
</tr>
<tr>
<td>26.60</td>
<td>7</td>
<td>7.7</td>
<td>7.8</td>
<td>57.8</td>
</tr>
<tr>
<td>29.90</td>
<td>1</td>
<td>1.1</td>
<td>1.1</td>
<td>58.9</td>
</tr>
<tr>
<td>30.00</td>
<td>4</td>
<td>4.4</td>
<td>4.4</td>
<td>63.3</td>
</tr>
<tr>
<td>33.20</td>
<td>3</td>
<td>3.3</td>
<td>3.3</td>
<td>66.7</td>
</tr>
<tr>
<td>33.30</td>
<td>3</td>
<td>3.3</td>
<td>3.3</td>
<td>70.0</td>
</tr>
<tr>
<td>36.50</td>
<td>1</td>
<td>1.1</td>
<td>1.1</td>
<td>71.1</td>
</tr>
<tr>
<td>36.60</td>
<td>5</td>
<td>5.5</td>
<td>5.6</td>
<td>76.7</td>
</tr>
<tr>
<td>39.80</td>
<td>1</td>
<td>1.1</td>
<td>1.1</td>
<td>77.8</td>
</tr>
<tr>
<td>39.90</td>
<td>4</td>
<td>4.4</td>
<td>4.4</td>
<td>81.1</td>
</tr>
<tr>
<td>39.90</td>
<td>4</td>
<td>4.4</td>
<td>4.4</td>
<td>85.6</td>
</tr>
<tr>
<td>40.00</td>
<td>2</td>
<td>2.2</td>
<td>2.2</td>
<td>87.8</td>
</tr>
<tr>
<td>43.20</td>
<td>1</td>
<td>1.1</td>
<td>1.1</td>
<td>88.9</td>
</tr>
<tr>
<td>46.60</td>
<td>1</td>
<td>1.1</td>
<td>1.1</td>
<td>90.0</td>
</tr>
<tr>
<td>49.90</td>
<td>1</td>
<td>1.1</td>
<td>1.1</td>
<td>91.1</td>
</tr>
<tr>
<td>49.90</td>
<td>1</td>
<td>1.1</td>
<td>1.1</td>
<td>92.2</td>
</tr>
<tr>
<td>52.90</td>
<td>1</td>
<td>1.1</td>
<td>1.1</td>
<td>93.3</td>
</tr>
<tr>
<td>56.50</td>
<td>1</td>
<td>1.1</td>
<td>1.1</td>
<td>94.4</td>
</tr>
<tr>
<td>56.50</td>
<td>1</td>
<td>1.1</td>
<td>1.1</td>
<td>95.6</td>
</tr>
<tr>
<td>56.60</td>
<td>1</td>
<td>1.1</td>
<td>1.1</td>
<td>96.7</td>
</tr>
<tr>
<td>69.90</td>
<td>1</td>
<td>1.1</td>
<td>1.1</td>
<td>97.8</td>
</tr>
<tr>
<td>73.30</td>
<td>1</td>
<td>1.1</td>
<td>1.1</td>
<td>98.9</td>
</tr>
<tr>
<td>76.60</td>
<td>1</td>
<td>1.1</td>
<td>1.1</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>90</strong></td>
<td><strong>98.9</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Missing</strong></td>
<td><strong>1</strong></td>
<td><strong>1.1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>91</strong></td>
<td><strong>100.0</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 4.9 displays the modal moral judgment reasoning level for participants in this sample. 3.3% of the respondents (N=3) have a modal stage of moral reasoning at Stage 3 – The Mutual Expectations and Interpersonal Conformity stage. This stage is characterized by a fear of group rejection. Institutional or societal viewpoints are neglected and small group needs are seen as primary. Stage 3 is also characterized by stereotypical roles and conformity. The largest majority of the sample, 82.4% (N=75) possess a modal Stage 4 level of moral reasoning, or a Law and Order/Social System Conscience orientation. This stage is characterized by an individual who exhibits a total trust and belief in authority. An orientation towards doing one’s duty in order to maintain social order guides moral reasoning at this level. 13.2% of respondents (N=12) possess a modal moral reasoning level at Stage 5a, the Individual Rights Orientation stage. This stage is characterized by the social contract orientation. An awareness of individual and social concerns serves as a guide for decision-making. 1.1% (N=1) possess a modal moral reasoning level at Stage 5b, and expanded orientation to social contracts and individual rights. This stage is characterized by a focus on substantive moral rights when making moral decisions. There are no respondents who possess a moral reasoning level at Stage 6, or Universal Ethical Principles Orientation. This stage is largely theoretical and remains to be empirically proven to exist.
Table 4.9 displays the modal stage of moral development for this sample. Three percent (N=3) possess a modal stage of moral reasoning at Stage 3, while the greatest number of respondents (82.4%, N=75) possess a Stage 4 orientation to moral judgment reasoning. 13.2% (N=12) possess a moral reasoning level at Stage 5a and 1.1% (N=1) possess a moral reasoning orientation at Stage 5b. Rest and Narvaez (1994) indicate that Stage 5a is characterized by a focus on *due process* issues, while Stage 5b is characterized by an orientation towards *substantive issues* of morality and justice.

Modal stages were obtained through hand scoring the DIT, as were the P-scores mentioned in the prior section. Stage scores are based on weighted ranks given to responses or moral dilemma scenarios. An individual's stage score indicates the relative importance subjects give to stage specific responses on the DIT-Short Form (Rest, 1990).

*Professional Quality of Life Questionnaire – 3rd Revision*

The Pro-Qol-R-III renders scores for Compassion Fatigue, Compassion Satisfaction, and Burnout. These scores are indicative of the risk level for acquiring
either construct. Table 4.10 displays this sample’s risk for Compassion Fatigue. 24.2% of the sample (N=22) are at “High Risk” for Compassion Fatigue, while the majority of the sample, 75.8% (N=69) are at “Low Risk” for Compassion Fatigue.

Table 4.10

*Risk for Compassion Fatigue*

<table>
<thead>
<tr>
<th>Valid Compassion Fatigue</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>22</td>
<td>24.2</td>
<td>24.2</td>
<td>24.2</td>
</tr>
<tr>
<td>Low</td>
<td>69</td>
<td>75.8</td>
<td>75.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>91</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.11 displays the risk for Compassion Satisfaction for this sample. 91.2% (N=83) of the sample is at “High Risk” for Compassion Satisfaction. 8.8% (N=9) of the sample is at “Low risk” for Compassion Satisfaction.

Table 4.11

*Risk for Compassion Satisfaction*

<table>
<thead>
<tr>
<th>Valid Compassion Satisfaction</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>83</td>
<td>91.2</td>
<td>91.2</td>
<td>91.2</td>
</tr>
<tr>
<td>Low</td>
<td>8</td>
<td>8.8</td>
<td>8.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>91</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Table 4.12 displays the risk for Burnout for this sample. 14.3% (N=13) are at “High Risk” for burnout, while 85.7% (N=78) are at “Low Risk” for burnout as measured by the Pro-Qol-R-III.

Table 4.12

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>13</td>
<td>14.3</td>
<td>14.3</td>
<td>14.3</td>
</tr>
<tr>
<td>Low</td>
<td>78</td>
<td>85.7</td>
<td>85.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>91</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Formal Hypotheses and Investigative Hypotheses

Three main hypotheses involving the relationship between cognitive development, as measured by the Defining Issues Test, and Compassion Fatigue, Compassion Satisfaction, and Burnout, as measured by the Professional Quality of Life Questionnaire – 3rd Revision, were investigated. The results of the three major hypotheses are reported in the following paragraphs. Table 4.13 displays significant findings. Table 4.13 displays the findings for the three formal hypotheses in the present study.

Hypothesis One

Hypothesis 1: There is a negative relationship between moral development and compassion fatigue. This hypothesis was only partially supported by this investigation. When correlational analysis was conducted with the total P-Score, there were no significant findings. However, when stage specific principled reasoning scores were
analyzed against Compassion Fatigue risk levels, a significant negative relationship existed between Stage 5b moral reasoning and Compassion Fatigue (F for $r^2$ change = .025 negative relationship).

**Hypothesis Two**

Hypothesis 2: There is a negative relationship between Moral Development and Burnout. This hypothesis was only partially supported by this investigation.

As in the previous situation, when multiple regression analysis was conducted, no significant relationship was found among P-scores and Burnout. However, when stage specific principled reasoning scores were analyzed, a significant negative relationship exists between stage 5b scores and Burnout (F for $r^2$ change = .035, negative relationship).

**Hypothesis Three**

Hypothesis 3: There is a positive relationship between Moral Development and Compassion Satisfaction.

This hypothesis was not supported by this investigation.

Table 4.13

<table>
<thead>
<tr>
<th>Pro-Qol-R-III Scales</th>
<th>5a</th>
<th>Significance</th>
<th>5b</th>
<th>Significance</th>
<th>6</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compassion</td>
<td>-.122</td>
<td>.124</td>
<td>.039</td>
<td>.356</td>
<td>.013</td>
<td>.452</td>
</tr>
<tr>
<td>Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burnout</td>
<td>.013</td>
<td>.451</td>
<td>-.191</td>
<td>.035</td>
<td>.027</td>
<td>.400</td>
</tr>
<tr>
<td>Compassion Fatigue</td>
<td>.193</td>
<td>.034</td>
<td>-.219</td>
<td>.019</td>
<td>.111</td>
<td>.149</td>
</tr>
</tbody>
</table>
Investigative Hypotheses

In addition to the three major hypothetical investigations, six investigative questions were explored. Each question will be detailed below, as will any significant findings.

*Investigative Hypothesis One*

Investigation 1: There is a positive relationship between Moral Development and years of experience.

Analysis using one-way ANOVA failed to yield a significant relationship in relation to this hypothesis.

*Investigative Hypothesis Two*

Investigation 2: There is a positive relationship between Moral Development and Age. Analysis using one-way ANOVA did not yield significant results.

*Investigative Hypothesis Three*

Investigation 3: There is a positive relationship between Moral Development and Education. Analysis using one way ANOVA yielded significant results for this question (-.253 Pearson r, .008 significance, p<.05).

*Investigative Hypothesis Four*

Investigation 4: There is a positive relationship between Compassion Satisfaction and years of experience. Analysis using one-way ANOVA did not yield significant results for this hypothesis.
Investigative Hypothesis Five

Investigation 5: There is a significant negative relationship between Compassion Fatigue and perceived organizational support. Analysis using one-way ANOVA did not support this investigation.

Table 4.14

Compassion Fatigue and Perceived Support

<table>
<thead>
<tr>
<th>Compassion Fatigue Pearson Correlation</th>
<th>Significance (1-tailed)</th>
<th>N</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compassion Fatigue</td>
<td>1</td>
<td>.178*</td>
<td>91</td>
</tr>
<tr>
<td>Support</td>
<td>.046</td>
<td></td>
<td>91</td>
</tr>
</tbody>
</table>

Additional Question

Finally, an additional question was suggested. This question investigated the relationship between employment status (paid professional versus volunteer personnel) and compassion satisfaction, compassion fatigue, and burnout. Analysis using Independent Samples t-tests failed to produce significant results for this investigation.

Summary

This chapter has presented the results of data analysis and the relation to the formal and investigative hypotheses examined in this study. The results show what could be described as partial support for the hypothesis that higher levels of moral development have a significant impact on compassion fatigue in emergency response personnel. Demographic data show that this study is somewhat comparable to other studies involving emergency response personnel. Findings will be discussed in greater detail in the following chapter.
CHAPTER FIVE

Discussion

The purpose of this study was to examine the impact of moral development on compassion fatigue in emergency response personnel. In particular, it was expected that principled reasoning would have a significant mitigating impact on compassion fatigue and burnout while also supporting and encouraging levels of compassion satisfaction in this particular sample.

This chapter will present a discussion of the findings resulting from this dissertation research project. Discussion of each hypothesis and investigative question will be presented. A critique of this research project and implications for further research will also be presented.

Hypothesis One

Hypothesis one proposed that a significant negative relationship would exist between moral development and compassion fatigue. Analysis did not support a relationship between P-Scores (principled reasoning scores) and scores on the Compassion Fatigue scale of the Pro-Qol-R-III, but further analysis did render an interesting finding for this hypothesis. When stage specific scores were correlated with scores from the Compassion Fatigue scale, a significant negative relationship was found between stage 5b scores, the highest empirically substantiated moral reasoning stage, and compassion fatigue scores.

There may be several reasons for these particular findings. Primarily, no significant relationship at all may exist between higher stages of moral development and compassion fatigue. In opposition to the position of Hoffman in Gibbs (2002), higher
levels of development may not result in less empathic overarousal. However, the
correlation between higher stage thinking and compassion fatigue partially supports the
research contention that a helper at higher stages of moral reasoning is more capable of
handling empathically challenging situations and thus is less susceptible to compassion
fatigue. It may be that higher levels of development in this profession do mitigate the
stressful work that is conducted on a daily basis. However, only a low number of
respondents were functioning at modally at higher stages, thus making the finding
susceptible to criticism. It may also be the case that moral development relates to
compassion fatigue at the highest level of cognitive development, as analysis supports in
this case.

Possibly respondents at higher levels of development are able to employ self-
protective measures that prevent compassion fatigue as Huggard (2003) proposes. Some
individuals in caregiving professions, medicine, in particular, often intentionally inhibit
their empathic understanding as an act of self-preservation. Huggard’s (2003) study
found that caregivers seek this detachment for protection from burnout, maintenance of
impartiality, and to keep emotions from interfering with objectivity.

Empathy, as described by Gibbs (2002), may not be related to cognitive
development as hypothesized for individuals in this profession. Gibbs suggests that
individuals at higher levels of cognitive development are less prone to empathic over-
arousal and can thus moderate the impact of empathically challenging situations. Low
levels of empathic engagement and higher levels of principled reasoning in this sample as
a whole, as suggested by Huggard (2003), may have prevented significant findings for
this hypothesis as well. However, the relationship between empathy and compassion
fatigue has not yet been confirmed and thus may only be hypothesized at this point. Previous research, as cited in Chapter 2, does support a link between higher level of moral reasoning and advanced empathy (Gibbs, 2003). This finding may suggest that, for those in this sample that demonstrate reasoning at stage 5b, their empathic capacity may be linked to a capacity to cope with crisis environments that mitigates compassion fatigue.

**Hypothesis Two**

Hypothesis two proposed that there would be a significant negative relationship between moral development and burnout. Again, this hypothesis was only partially supported by analysis for stage 5b, and not with total P-Scores from the Defining Issues Test -Short Form. Moral development negatively relates to burnout for those who serve only at the highest level of moral development in this particular sample.

The type of burnout assessed by the Pro-Qol-R-III is more related to the impact of caregiving in helping professionals. It could be that “caring” does not cause burnout in sufficient amounts to be detected in this research. Eighty-five per cent of respondents in this sample were assessed to be at “low” risk for burnout. Also possible is that the professional demands of this sample were relatively minimal and thus less likely to engender burnout. The lack of burnout, as assessed by the Pro-Qol-R-III, may have prevented significant findings for this hypothesis.

It is possible that individuals exhibiting behavior at this stage experience themselves as fulfilling a social contract by providing caregiving and rescuing services to members of the community. If respondents perceive that they are committed to conventional social order, which earmarks this stage, then respondents at this stage could
understandably have lower levels of burnout. These individuals hold a strong belief in adherence to the rules, have respect for authority, and may manage challenges to their current frame of reasoning through their persistent devotion to secondary social institutions. They may not construct reasoning regarding their work as a function of care, as suggested by Gilligan (1982). Further, the DIT, based on Kohlberg’s theory of moral reasoning, may not adequately capture the aspect of care as a moral enterprise. Also, burnout as measured by the Pro-Qol-R-III and operationalized by Figley (2002) is defined differently than other conceptualizations of that particular construct in that focuses on the caregiving relationship. The instrument may not have captured burnout in the context of the emergency services profession in a sufficient manner.

Hypothesis Three

Hypothesis three proposed that there would be a significant positive relationship between moral development and compassion satisfaction. This hypothesis was not supported. Again, this finding contradicts the perspective of Hoffman in Gibbs (2002), who suggests that higher levels of development would result in greater satisfaction as a result of their helping others. Compassion satisfaction levels were very high for this sample; 91.2% of the sample reported “High” levels of compassion satisfaction. Findings of this research indicate a great deal of satisfaction is coming from something other than moral development level or principled reasoning capacity.

The modal stage of moral development for this sample was stage 4, the “Law and Order” or “Social Systems and Conscience” stage. At this stage, orientation towards doing one’s duty and maintaining the social order is the most desired method of acting and behaving. A total trust and belief in authority is present in these individuals. It can
be argued that respondents see themselves as part of the existing social institution that promotes order and safety. Thus, they perceive themselves as helping maintain that social order and satisfaction could be derived from that. Being an “authority figure” supported by a secondary social institution can be very rewarding for someone functioning modally at stage four. This is supported by research conducted by Thoma, MaloneBeach, & Ludewig (1997), which indicates that Stage 4 scores and not P-scores, are related to career success and satisfaction. Respondents in this sample may not perceive themselves as “helpers;” rather, they identify with the social institutions and social order that supports them, and not as someone appointed to provide care for others. They may not be driven by a social conscience, which compels them to help other human beings in need.

As discussed above, the participants in this study may not conceptualize their experiences through a lens of care or as driven by moral reasoning. That is, their developmental constructions of themselves as emergency response professionals may not include a significant element of compassion and investment in the welfare of others as a moral task. It could be argued that the respondents in this sample gain satisfaction from other aspects of working in the emergency response professions and these other factors were not investigated in this particular project. Less empathically driven aspects of the job, such as camaraderie among co-workers, conformity and belonging, social desirability, and the excitement of working in such an exhilarating profession may offer these professionals more satisfaction. Again, the DIT may not capture the developmental aspects of the way individuals make meaning of their life experience and the world at large. Their frames of reference, from simple to complex levels of impulse control,
cognitive complexity, self-awareness, interpersonal skills and adaptability to external demands, may be better captured within the domain of ego development (Loevinger, 1976) rather than moral development

Investigative Hypotheses

In addition to the three major hypothesis discussed above, six investigative questions were explored in this study. A discussion of each finding relative to those investigative questions follow.

Investigative Hypothesis One

Investigation one suggested that there would be a positive relationship between moral development and years of experience in emergency response work. While no significant findings supported this question, an interesting finding did arise. Analysis shows that stage 5a scores are negatively correlated with years of experience. In essence, this means that lower levels of moral development equate with more years of experience. Roodin (1984) suggests that life experience can be a major source of adult cognitive changes in beliefs, attitudes, and judgments. Adult years define an important period for moral growth. The findings of this investigation could lead one to believe otherwise.

However, it can be argued that higher developed individuals may leave the profession early in their careers. These individuals may leave the profession because of limitations inherent in working in a social institution and the restrictive atmosphere found in those institutions and seek more fulfilling roles in other professions. Higher developed individuals tend to find themselves at odds with rules which they do not perceive as benefiting the greater good in society. This may lead to a different type of burnout or frustration that makes these individuals leave the profession. It can also be argued that
initial dissonance that individuals experience may taper off as one learns to accommodate or acclimate to the amount of stress involved in the emergency response professions. It is also a possibility that the other growth producing aspects of development, such as those described in Sprinthall's Deliberate Psychological Education method are not present, such as support, a period of guided reflection and continuity. If this is the case, growth-promoting moments are lost and the individual continues to reason at lower developmental levels. Promoting growth may not be an ingrained aspect of the emergency response professions. Professional training may focus on skill acquisition or clinical competency as opposed to cognitive and moral development. More importantly, it may not be recognized that growth and development are an important part of job training.

Investigative Hypothesis Two

Investigation two suggests that there is a positive relationship between moral development and age. This was not supported in this research project. Rest and Narvaez (1994) explain that age has not been a stable predictor of development in a number of studies conducted in the past, and this research project affirms their statement. Promoting development in adults requires longer and more intensive intervention, and growth is slower. If the participants in this sample did not encounter challenges to their current ways of making meaning of their environment, development would stabilize, as discussed previously. Thus, age could be less of a factor than the person in the context of the environment, as hypothesized by Hunt (1975). Following the findings in the previous investigative hypothesis, the professional environment of the emergency response professions does not seem to offer conditions for promoting growth over the years.
Other reasons inherent in this research project may have prohibited significant findings for this question though. A relatively low number of respondents with scores in the principled range may have inhibited statistical significance. Also, the small sample size may have prohibited significant findings as well.

*Investigative Hypothesis Three*

Investigation three suggests that there is a positive relationship between moral development and educational level. The findings of this research project support this investigation. The significant findings of this research project support what many authors and research projects have replicated and shown in numerous studies conducted in the past. Education continues to be the most powerful correlate with moral development than any other variable (Rest & Narvaez, 1994).

Cognitive developmental theorists have developed an educational intervention that has been empirically proven in many studies to promote growth to higher levels of development. Of particular interest is the Deliberate Psychological Education intervention as described by Sprinthall in Rest and Narvaez (1994). According to this intervention, a number of things must be in place for growth to occur: a new role taking experience, careful and continuous guided reflection, a balance of support and challenge in the new role experience, and continuity.

The working conditions would seemingly challenge the emergency response professionals, by its very nature, as presented in Chapter 1 (Alexander & Klein, 2001; Collins & Long, 2003; Figley, 2002). However, the role they fulfill as emergency response professionals may lack sufficient psychological challenge, support and opportunities for development. It nonetheless seems justifiable to incorporate the salient
elements of the Deliberate Psychological Education approach into the standard training regimen of emergency response professionals to facilitate development. The absence of significant numbers of complex thinkers in this sample might suggest, however, that promoting development serve as a deterrent for continued involvement in the profession. This possibility, of course, is based on very limited findings and would require more investigation.

Investigative Hypothesis Four

Investigation four suggested that there is a positive relationship between compassion satisfaction and years of experience in the emergency response professions. This was not supported by this research project. It was assumed that satisfaction gained from working in this or any other profession would grow as one gains experience in the field and this is not the case for this particular sample.

It could be argued that simply being a part of a social order institution, especially for stage 4 individuals, regardless of years of experience, equates to more satisfaction with one’s profession. Respondents could obtain satisfaction from other aspects of this job. This profession offers a certain level of job security, financial safety, honor, and nobility, especially in the post September 11 atmosphere, and one could certainly gain satisfaction from that aspect. Despite the stressful working environment, the typical emergency response professional only works 14 days during each month. Time off, as described by Figley (2002), is an organizational approach to managing compassion fatigue that may indeed be very efficacious.
Investigative Hypothesis Five

Investigation five suggests that there is a negative relationship between compassion fatigue and perceived organizational support. Rhodes and Eisenberger (2002) suggest that higher levels of perceived organizational support contributes to overall job satisfaction and increased feelings of competence and worth. Higher levels of perceived organizational support are also thought to reduce aversive psychological and psychosomatic reactions to inherent job stressors (Robblee, 1998).

This research did not render significant results for this investigation. It was assumed by this researcher that increased levels of perceived support would have a mitigating impact on compassion fatigue in this sample. With increased institutional attention being given to emergency response personnel, especially in the areas of stress management and personnel retention, this researcher was hoping to gauge the effectiveness of these assumed institutional actions. A number of reasons may exist to explain the lack of significant findings here. Primarily, the question assumed that organizational support was inherent in the surveyed departments the sample population was employed by. It could be argued that in many volunteer departments, especially in rural areas, no organizational support programs exist. Secondly, the question did not specifically address the presence of such support programs.

Additional Research Question

An additional research question was explored involving the possible relationship among employment status, compassion fatigue, compassion satisfaction, and burnout as measured by the Pro-Qol-R-III. Independent samples t-tests did not result in any significant findings.
It was anticipated that paid professional emergency response personnel would experience higher levels of compassion fatigue and burnout due to the assumed call volume and professional demands associated with the job. It was assumed that volunteer fire fighters and emergency response personnel would experience higher levels of compassion satisfaction due to their voluntarily seeking out this type of work. It may be that volunteers carry the stress and burden of a full time job in addition to the stress and burden of voluntarily serving as an emergency responder.

Critique and Limitations

As this research project progressed into its final stages, it became apparent that there were several associated shortcomings. Many things became clear afterwards and will serve as learning experiences for future research endeavors.

The small sample size (N=91) for this research project posed limitations to its generalizability and to the strength of the results. Even though a national sample was obtained for this project, respondents from the national sample were minimal. The small sample size also resulted in a restricted range of responses for demographic factors, which possibly did not give the broadest and most meaningful results possible for a research project. Significant results, however interesting, must be viewed in light of the relatively small sample size was used for statistical analysis.

The respondents for this research project were a racially homogeneous group. Nearly ninety-three percent of respondents in this project were White/Caucasian, which left many underrepresented minority groups out of the equation so to speak. Very low numbers of African-American, Hispanic, Native American, and multiracial individuals took part in the research.
It could be argued that underrepresented groups bear an even greater burden than
dominant culture groups given systemic racism and prejudice encountered daily in their
lives. What should be considered is how that societal stress coincides with the stress of
working in the emergency response professions, which was not addressed in this study.
A concentrated effort should be made by future researchers to include sufficient numbers
of minority groups in research projects involving the factors specific to this project.

Specific threats to internal validity are related to instrumentation and testing. As
reported previously in this paper, the Professional Quality of Life – 3rd Revision (Pro-
Qol-R-III) is a relatively new self-report instrument that is still considered by its authors
to be in the developmental stages. Validity and reliability information is minimal at best.
Test-retest reliability is the only credible validity reported for this particular measure. It
is brief and uses a Likert scale response system.

The Defining Issues Test – Short Form also has a few limitations. Primarily,
some of the verbiage and situations presented in the dilemma stories are somewhat dated,
足够的 so that a few respondents commented on this during test administration.

Both of the aforementioned instruments are self-report measures and a concern
discussed in the literature describes the issue of social desirability when completing self-
report measures. Holtgraves (2004) reports that several authors explain how people tend
to over-report engaging in socially desirable behaviors and underreport engaging in
socially undesirable behaviors. Research documents the occurrence of this bias in self-
report measures assessing personality traits and behaviors. Holtgraves (2004) reports
that, despite the aforementioned drawbacks to self-report measures, many authors argue
that its importance and influence has been greatly exaggerated. In short, the
pervasiveness and impact of social desirability in self-report measures remains unknown. In addition, arguments persist about how social desirability should be conceptualized to begin with. However, as noted in Chapter 3, the DIT has not correlated highly with scores on social desirability measures. "Faking high" is controlled by the use of the M score of the instrument. However, both research instruments were hand scored and this could be a source of error on behalf of the scorer.

The demographics instrument deserves criticism as well. As data were collected it became apparent that the "Years of Experience" variable should have been more thoughtfully considered. Thirty-eight percent of the respondents indicated that they had over fifteen years of experience. This indicates that this variable should have been assessed in a continuous manner or that the groupings for years of experiences should have been more defined and detailed.

Specific threats to external validity include the Hawthorne Effect, historical interaction, experimenter effect, and novelty/disruption effects. The Hawthorne Effect concerns itself with the fact that individuals tend to act differently when they are being observed or tested. This may be a concern for the survey/mail sample, but it may have been an even bigger issue for respondents who completed the survey instruments at meetings and presentations. At these presentations, the researcher was present, as were members of the command structure at each squad or department.

A historical event that may have impacted the results the research was occurring as the respondents were completing the research instruments. This particular event was eerily similar to the "Newspaper" dilemma as presented in the Defining Issues Test - Short Form. It was similar enough that a few respondents commented on this during data
collection. In addition to that, traumatic stressful events occur on a daily basis for emergency response professionals and that should be taken into consideration when reviewing the results of this research.

Yet another threat to external validity is the effect of the observer on the observed, especially at personal presentations. Perceptions of the observer by the observed may have resulted in altered responses on the various research instruments. However, a few of these presentations appeared to be very relaxed and genuine.

A final threat to external validity is novelty or disruption effects. Respondents could have viewed the research instruments as something simply to take up time. Respondents could have also viewed the research instruments as imposing on their schedule and thus would not have taken the research project or its associated instruments seriously.

Overall, the larger percentage of this sample were apparently satisfied with the work they are doing as assessed by the Compassion Satisfaction subscale of the Pro-Qol-R-III. 91.2% of the sample indicates that they possess “High” levels of compassion satisfaction. Compassion satisfaction has been suggested as a mediating variable to compassion fatigue by Figley (2002) and Stamm (1998) and thus may have prevented more significant findings in this research.

The high percentage of Stage 4 respondents in this research posed severe limitations to the outcome of this study. 82.4 percent of this sample is assessed at Stage 4 moral reasoning capacity. As in other studies (Rest et.al., 1999) the lack of respondents at postconventional moral reasoning levels is an issue in this research project. The restricted range of respondents in other stages of moral reasoning prevents more detailed
findings and calls for further research with a larger sample and inclusive of respondents at differing stages of moral reasoning.

Implications for Practice

Significant findings related to the impact of cognitive development on compassion fatigue and burnout in emergency response personnel lend justification for further research in the field and that these interventions be designed in an effort to promote growth and development among professionals in this stressful career field. Such research can be centered around Sprinthall’s (1994) Deliberate Psychological Education method. Matching the inherent challenges of this profession with the appropriate amount of support, careful and continuous guided reflection, and continuity of support could be built in to the day-to-day operations of an emergency response unit with minimal interruption in daily activities. Barrett and Campos (in Cummings, Green, and Karraker, 1991) suggest that since higher levels of cognitive development increase the number of personal responses to stressful situations, the conceptual complexity of individuals when assessing stressful situations, and the number of coping responses available, promoting cognitive development in this profession would be beneficial.

The findings of this research could also justify including a developmental element in the preservice screening process for individuals hoping to work in the emergency response professions. With the knowledge that cognitive development has a mitigating impact on compassion fatigue and burnout in some instances, it may be desirable for administrators and managers may wish to seek out individuals from higher developmental levels.
The findings of this study indicate that administrators and counselors should reevaluate current methods of addressing stress and compassion fatigue in emergency response personnel. Current methods of providing support to these professionals are not providing them with the levels of support necessary to mitigate the impacts of such a stressful occupation. The needs of the profession go way beyond simply providing time off or providing information regarding the impact of stress. The current interventions mentioned such as Critical Incident Stress Management, Debriefing, Demobilization, EMDR, and various other organizational interventions simply are not adequate and could be enhanced or replaced using a developmental approach.

An implication for practitioners and trainers at this point is to determine the most appropriate ways to include developmental interventions into accepted pre-employment and in-service training routines for emergency response professionals and within their departments.

Implications for Further Research

Primarily, the next logical step in a developmental approach is the design of an intervention based on the Deliberate Psychological Education model specifically for emergency response professionals. Research on the effectiveness of the model can provide directions for refinement and elaboration for continued use, should the DPE prove valuable. This will be a daunting task and will require collaboration across many systems, but the results will nonetheless be worth the effort.

The Defining Issues Test – Short Form was used for this research project for a number of reasons; time being the most obvious reason. While this instrument is a good choice, other instruments designed to measure moral reasoning may provide better data.
for more in-depth analysis. The Moral Judgment Interview was Kohlberg's original method of assessment. This semi-structured interview asks subjects to talk about many different hypothetical moral dilemmas and is particularly sensitive to the rationale behind the moral decision made by the participant. This measure, which relies more on the participants responses than to the sentence fragments provided by the test, may be more sensitive to moral reasoning ability than the DIT (Rest & Narvaez, 1994).

Linking moral judgment to moral behavior is an issue presented in Rest and Narvaez (1994) and Rest, Narvaez, Bebeau, and Thoma (1999). They suggest that a Neo-Kohlbergian approach as an extension of original Kohlbergian theory could provide a better framework through which to investigate this topic. The Neo-Kohlbergian approach utilizes a newer version of the DIT, the DIT2, which may be more sensitive to many untapped aspects in this sample as assessed by the DIT – Short Form. Primarily, Rest, et al (1999) suggest that their new measure is more sensitive to the Four Component Model of moral behavior. The elements of moral sensitivity (interpreting the situation), moral judgment (judging the action as morally right or wrong), moral motivation (prioritizing morals relative to other values), and moral character (moral courage) all play a role in moral behavior. It would be interesting to assess this population with the new DIT2 instrument as a supplement to moral reasoning for emergency response professionals as it would full the necessary link between moral reasoning and moral behavior.

The issue surrounding moral orientation involving the concepts of justice and care must be examined. Gilligan (1982) suggested that gender differences surrounding moral orientation exist between males and females, with males focusing on issues of justice and females focusing on issues of care. Klein (1989) suggests that the combined ethics of
justice and care are important when assessing caregiver burden. Given the basic social
duty of emergency response professionals to care coupled with the fact that women
continue to make up a larger percentage of professionals in this field, an assessment
substituting a Kohlbergian approach with a feminist approach is justified and may render
interesting results.

Rest and Narvaez (1994) suggest that moral development may be “piggybacking” on other variables. Many variables were not assessed during this study, but future investigations involving complementary aspects to moral development may wish to include an assessment of spirituality and religion as suggested by Roberts, Flannelly, Weaver, and Figley (2003) and Shweder (in Rest et al., 1999) who report a consistent relationship between DIT P scores and religious beliefs. Further, additional domains of development could be used to assess a relationship between cognitive development and compassion fatigue.

Loevinger’s Ego Development (1976) has been described as the “master trait” and could lead to promising research with this particular population. While striking levels of similarity between Kohlberg’s Theory of Moral Development and Loevinger’s Model at earlier stages, the two models diverge. Kohlberg’s model is most closely related to moral decision making while Loevinger’s model is more closely related to interpersonal and cognitive style. An assessment of the interpersonal aspects of the emergency response professionals work may be better facilitated through Loevinger’s model. Additionally, Hunt’s (1975) Conceptual Complexity model describes an individual on a continuum of ability to more effectively operate in more complex and ambiguous situations, which are presumably present in the emergency response professions.
Replication studies are needed with much larger samples in order to strengthen the impact of moral development on compassion fatigue in this particular population. A larger sample size would strengthen the significance of the findings and may further convince policy makers of the need to re-think their approach to providing support to the emergency response professions. Further studies with the Pro-Qol-R-III are needed in order to strengthen the reliability and validity of the instrument. This instrument is still in its developmental stages, but nonetheless is a construct worth more scholarly investigation.

Conclusion

This research project was an exploration into the impact of cognitive development on compassion fatigue in emergency response personnel. Significant findings partially support a mitigating influence on those factors at higher levels of cognitive development and justify further investigation and research on this specific topic. Moreover, those who participated in this research recognize that there is a "cost of caring" as described by Figley (1995) and are willing to help find ways to combat those costs. Since September 11, emergency response professionals have been asked to accept an even greater burden than they were formerly bearing, and that greater burden is a significant role in national and homeland security. We owe it to them and to ourselves to promote development and health in their chosen profession. Their willingness to help themselves, coupled with our willingness to help them must reach beyond the halls of academia and out into the field where their services are needed. The findings of this study justify further research, but our duty as counselors is to take what we gain from research and put it to use in the field.
REFERENCES


Carrigan, M. H., & Levis, D. J. (1999). The contributions of eye movements to the
efficacy of brief exposure treatment for reducing exposure treatment for reducing


Davison, M. L. (1979). The internal structure and psychometric properties of the


disaster workers: Similarities and differences in reactions. *Journal of Traumatic
Stress 9*(3), 541-556.

Eisenberg, N. & Morris, A. (2001). The origins and social significance of empathy
related responding. A review of empathy and moral development: implications for

development, and racial identity development of White counseling students.


APPENDIX A

POST CARD
A Cognitive Developmental Approach  - 140 -

Postcard

You, as an Emergency Response Professional, have been selected to participate in a research project being conducted at The College of William & Mary in Williamsburg, Va.

In a few days, you will receive a package containing the research materials. Please take a few minutes to complete the materials inside the package!

When you return your completed package, you will receive a $10 Wal-Mart gift card to spend as you please.

Please call Hugh Jackson at (757) 221-6397 or email me at ahjack@wm.edu if you have questions regarding this research.

Thank you for your participation in this study and THANK YOU FOR THE WORK THAT YOU DO!

Hugh Jackson
APPENDIX B

INFORMED CONSENT
INFORMED CONSENT

My name is Hugh Jackson and I am a doctoral candidate at the College of William and Mary. I am conducting research in an effort to find the relationship between cognitive reasoning and compassion fatigue in emergency response personnel. With the findings of this research, we will hopefully discover ways to mitigate the impact of working in such a stressful profession.

If you decide to participate in this study, I ask that you complete the enclosed forms. They are:

1. The Informed Consent Form – the form you are reading.
2. The Demographics Form
3. The Pro-Qol-R-III – The Professional Quality of Life Questionnaire
4. The Defining Issues Test

You should expect to spend approximately 30 minutes completing these forms.

Please return these forms in the self addressed stamped envelope included in this packet. Your identity will remain anonymous and your name will not be used to identify your responses. Your participation will remain confidential. The numbers you see on each form allow me to match forms, not individuals.

By signing below, you agree to participate in this study. This is entirely voluntary and you may withdraw from this study at any time. Please call the William & Mary Human Subjects Committee at 757-221-3901 if you have questions.

Thank you very much for your participation. Results will be available upon request by contacting Hugh Jackson, 205 Jones Hall, Room 205, Williamsburg, VA 23187. If you have further questions, please call me at 757-221-2363 or you may call Dr. Rip McAdams at 757-221-2338.

Signed ________________________________

Date __________________________

Return this form in the enclosed envelope.
APPENDIX C

DEMOGRAPHICS FORM
RESEARCH DEMOGRAPHICS

AGE: ______16 – 25 _______26 – 35 _______36-45 _______46-55
____55-64 _______65 and Over.

EDUCATION: Please indicate your highest level of education
_______GED _________High School _______College
_________Vocational/Technical College _______Graduate Degree
_________Other

Years of Experience: Please tell us how long you have worked in this field.
_______0-2 _______3-5 _______6-10 _______11-15 _______Over 15

Please tell us your race/ethnicity:
_________White/Caucasian
_________African-American
_________Asian
_________American Indian
_________Hispanic
_________Pacific Islander
_________Multiracial

Are you:
_______Paid _________Volunteer

Are you:
_______Male _________Female

Please indicate the amount of support you feel you receive from your organization on a scale of 1 to 5. (1 is no support and 5 is a great deal of support.
______________

THANK YOU....Please complete the enclosed instruments.
APPENDIX D

PROFESSIONAL QUALITY OF LIFE, REVISION 3

(Pro-QOL-R-III)
Helping others puts you in direct contact with other people’s lives. As you probably have experienced, your compassion for those you help has both positive and negative aspects. We would like to ask you questions about your experiences, both positive and negative, as a helper. Consider each of the following questions about you and your current situation. Write in the number that honestly shows how often the statement has been true for you in the last 30 days.

0=Never 1=Rarely 2=A Few Times 3=Somewhat Often 4=Often 5=Very Often

1. I am happy.
2. I am preoccupied with more than one person I help.
3. I get satisfaction from being able to help people.
4. I feel connected to others.
5. I jump or am startled by unexpected sounds.
6. I have more energy after working with those I help.
7. I find it difficult to separate my private life from my life as a helper.
8. I am losing sleep over a person I help's traumatic experiences.
9. I think that I might have been “infected” by the traumatic stress of those I help.
10. I feel trapped by my work as a helper.
11. Because of my helping, I have feel “on edge” about various things.
12. I like my work as a helper.
13. I feel depressed as a result of my work as a helper.
14. I feel as though I am experiencing the trauma of someone I have helped.
15. I have beliefs that sustain me.
16. I am pleased with how I am able to keep up with helping techniques and protocols.
17. I am the person I always wanted to be.
18. My work makes me feel satisfied.
19. Because of my work as a helper, I feel exhausted.
20. I have happy thoughts and feelings about those I help and how I could help them.
21. I feel overwhelmed by the amount of work or the size of my caseload I have to deal with.
22. I believe I can make a difference through my work.
23. I avoid certain activities or situations because they remind me of frightening experiences of the people I help.
24. I plan to be a helper for a long time.
25. As a result of my helping, I have sudden, unwanted frightening thoughts.
26. I feel “bogged down” by the system.
27. I have thoughts that I am a “success” as a helper.
28. I can’t remember important parts of my work with trauma victims.
29. I am an unduly sensitive person.
30. I am happy that I chose to do this work.

© B. Hudnall Stamm, Professional Quality of Life: Compassion Satisfaction and Fatigue Subscales-III, 1995 -2002, http://www.isu.edu/~bhstamm. This form may be freely copied as long as (a) author is credited, (b) no changes are made, & (c) it is not sold.
Self-scoring directions Research Information on the ProQOL – CSF-R-III: Professional Quality of Life: Compassion Satisfaction and Fatigue Subscales

Please note that research is ongoing on this scale and the following scores should be used as a guide, not confirmatory information. Subscales and cut points are theoretically derived. When at all possible, data should be used in a continuous fashion, rather than with cut scores. Cut scores should be used for guidance and comparability of samples, not for diagnostic or confirmatory information.

Self-scoring directions
1. Be certain you respond to all items.
2. On some items the scores need to be reversed. Next to your response write the
3. Reverse of that score. (i.e. 0=0, 1=5, 2=4, 3=3) Reverse the scores on these 5 items: 1, 4, 15, 17 and 29.
4. Note that 0 is not reversed because it is a null value regardless of the direction of the item.
5. Mark the items for scoring:
   a. Put an x by the following 10 items: 3, 6, 12, 16, 18, 20, 22, 24, 27, 30
   b. Put a check by the following 10 items: 1, 4, 8, 10, 15, 17, 19, 21, 26, 29
   c. Circle the following 10 items: 2, 5, 7, 9, 11, 13, 14, 23, 25, 28
6. Add the numbers you wrote next to the items for each set of items and compare on theoretical scores.
7. Write your answers below. The scoring is based on theoretical cut-points derived from ongoing research and are approximations only. If you have any concerns, you should discuss them with a physical or mental health care professional.

Compassion Satisfaction
Compassion satisfaction is about the pleasure you derive from being able to do your work well. For example, you may feel like it is a pleasure to help others through your work. You may feel positively about your colleagues or your ability to contribute to the work setting or even the greater good of society. Higher scores on this scale represent a greater satisfaction related your ability to be an effective caregiver in your job.

The average score is 37 (SD 7; alpha scale reliability .87). About 25% of people score higher than 41 and about 25% of people score below 32. If you are in the higher range, you probably derive a good deal of professional satisfaction from your position. If your scores are below 32, you may either find problems with your job, or there may be some other reason—for example, you might derive your satisfaction from activities other than your job.

Burnout
Most people have an intuitive idea of what burnout is. From the research perspective, burnout is associated with feelings of hopelessness and difficulties in dealing with work or in doing your job effectively. These negative feelings usually have a gradual onset. They can reflect the feeling that your efforts make no difference, or they can be associated with a very high workload or a non-supportive work environment. Higher scores on this scale mean that you are at higher risk for burnout.

The average score on the burnout scale is 23 (SD 6.0; alpha scale reliability .72). About 25% of people score above 28 and about 25% of people score below 19. If your score is below 19, this probably reflects positive feelings about your ability to be effective in your work. If you score above 28, you may wish to think about what at work makes you feel like you are not effective in your position. Your score may reflect your mood; perhaps you were having a “bad day” or are in need of some time off. If the high score persists or if it is reflective of other worries, it may be a cause for concern.

Compassion Fatigue/Secondary Trauma
Compassion fatigue (CF), also called secondary trauma (STS), and related to Vicarious Trauma (VT) is about your work-related, secondary exposure to extremely stressful events. For example, you may repeatedly hear stories about the traumatic things that happen to other people, commonly called VT. If your work puts you directly in the path of danger, such as being a soldier or humanitarian aide worker, this is not secondary exposure; your exposure is primary. However, if you are exposed to others’ traumatic events as a result of your work, such as in an emergency room or working with child protective services, this is
secondary exposure. The symptoms of CF/STS are usually rapid in onset and associated with a particular event. They may include being afraid, having difficulty sleeping, having images of the upsetting event pop into your mind, or avoiding things that remind you of the event.

The average score on this scale is 13 (SD 6; alpha scale reliability .80). About 25% of people score below 8 and about 25% of people score above 17. If your score is above 17, you may want to take some time to think about what at work may be frightening to you or if there is some other reason for the elevated score. While higher scores do not mean that you do have a problem, they are an indication that you may want to examine how you feel about your work and your work environment. You may wish to discuss this with your supervisor, a colleague, or a health care professional.

© B. Hudnall Stamm, Professional Quality of Life: Compassion Satisfaction and Fatigue Subscales-III, 1995 -2002, http://www.isu.edu/~bhstamm. This form may be freely copied as long as (a) author is credited, (b) no changes are made, & (c) it is not sold.
APPENDIX E

DEFINING ISSUES TEST – SHORT FORM

(DIT-SF)
Defining Issues Test (DIT)

OPINIONS ABOUT SOCIAL PROBLEMS

**Please list the last four digits of your social security number ______ ______ ______ ______
(used only to match the research instruments)

This questionnaire is aimed at understanding how people think about social problems. Different people often have different opinions about questions of right and wrong. There are no “right” answers in the way that there are right answers to math problems. You will be asked to give your opinion concerning several problem stories. Here is a story as an example:

Frank Jones has been thinking about buying a car. He is married, has two small children and earns an average income. The car he buys will be his family's only car. It will be used mostly to get to work and drive around town, but sometimes for vacations trips also. In trying to decide what car to buy, Frank Jones realized that there were a lot of questions to consider. Below there is a list of some of these questions.

If you were Frank Jones, how important would each of these questions be in deciding what car to buy?

Instructions for Part A: (Sample Question)

On the left-hand side of the page, check one of the spaces by each question to indicate its importance

<table>
<thead>
<tr>
<th>Importance</th>
<th>Great</th>
<th>Much</th>
<th>Some</th>
<th>Little</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Whether the car dealer was in the same block as where Frank lives? (Note that the person did not think this was important in making a decision.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>2. Would a used car be more economical in the long run than a new car? (Note that a check was put in the far left space to indicate that it is an important issue in making a decision about buying a car.)</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Whether the color was green, Frank's favorite color</td>
<td></td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Whether the cubic inch displacement was at least 200. (Note that if you are unsure about what “cubic inch displacement” means, then mark it “no importance.”)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>5. Would a large, roomy car be better than a compact car?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>6. Whether the front connibilles were differential. (Note that if a statement sounds like gibberish or nonsense to you, mark it “no importance.”)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Part B: (Sample Question)

From the list of questions and considerations above, select the most important one of the whole group. Put the number of the most important question on the top line below. Do likewise for your 2nd, 3rd, and 4th most important choices.

1. Most important
2. Second most important
3. Third most important
4. Fourth most important
Fred, a senior in high school, wanted to publish a mimeographed newspaper for students so that he could express many of his opinions. He wanted to speak out against the use of the military in international disputes and to speak out against some of the school's rules, like the rule forbidding boys to wear long hair.

When Fred started his newspaper, he asked his principal for permission. The principal said it would be all right if before every publication Fred would turn in all his articles for the principal's approval. Fred agreed and turned in several articles for approval. The principal approved all of them and Fred published two issues of the paper in the next two weeks.

But the principal had not expected that Fred's newspaper would receive so much attention. Students were so excited by the paper that they began to organize protests against the hair regulation and other school rules. Angry parents objected to Fred's opinions. They phoned the principal telling him that the newspaper was unpatriotic and should not be published. As a result of the rising excitement, the principal ordered Fred to stop publishing. He gave as a reason that Fred's activities were disruptive to the operation of the school.

Should the principal stop the newspaper? (Check One)

______ Should stop it

______ Can't decide

______ Should not stop it

(Please complete next page)
NEWSPAPER

<table>
<thead>
<tr>
<th>GREAT importance</th>
<th>MUCH importance</th>
<th>SOME importance</th>
<th>LITTLE importance</th>
<th>NO importance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

On the left-hand side of the page check one of the spaces by each question to indicate its importance.

1. Is the principal more responsible to the students or to the parents?

2. Did the principal give his word that the newspaper could be published for a long time, or did he just promise to approve the newspaper one issue at a time?

3. Would the students start protesting even more if the principal stopped the newspaper?

4. When the welfare of the school is threatened, does the principal have the right to give orders to students?

5. Does the principal have the freedom of speech to say “no” in this case?

6. If the principal stopped the newspaper, would he be preventing full discussion of important problems?

7. Whether the principal’s order would make Fred lose faith in the principal.

8. Whether Fred was really loyal to his school and patriotic to his country.

9. What effect would stopping the paper have on the student’s education in critical thinking and judgments?

10. Whether Fred was in any way violating the rights of others in publishing his own opinions.

11. Whether the principal should be influenced by some angry parents when it is the principal who knows best what is going on in the school.

12. Whether Fred was using the newspaper to stir up hatred and discontent.

From the list of questions above, select the four most important:

Most important
Second most important
Third most important
Fourth most important
ESCAPED PRISONER

A man had been sentenced to prison for ten years. After one year, however, he escaped from prison, moved to a new area of the country, and took on the name of Thompson. For eight years he worked hard, and gradually he saved enough money to buy his own business. He was fair to his customers, gave his employees top wages, and gave most of his own profits to charity. Then one day Mrs. Jones, an old neighbor, recognized him as the man who had escaped from prison eight years before and for whom the police had been looking.

Should Mrs. Jones report Mr. Thompson to the police and have him sent back to prison? (Check one)

_____ Should report him
_____ Can’t decide
_____ Should not report him

(Please complete next page)
ESCAPED PRISONER

On the left-hand side of the page check one of the spaces by each question to indicate its importance.

1. Hasn't Mr. Thompson been good enough for such a long time to prove he isn't a bad person?

2. Every time someone escapes punishment for a crime, doesn't that just encourage more crime?

3. Wouldn't we be better off without prisons and the oppression of our legal system?

4. Has Mr. Thompson really paid his debt to society?

5. Would society be failing what Mr. Thompson should fairly expect?

6. What benefits would prisons be apart from society, especially for a charitable man?

7. How could anyone be so cruel and heartless as to send Mr. Thompson to prison?

8. Would it be fair to all the prisoners who had to serve out their full sentences if Mr. Thompson was let off?

9. Was Mrs. Jones a good friend of Mr. Thompson?

10. Wouldn't it be a citizen's duty to report an escaped criminal, regardless of the circumstances?

11. How would the will of the people and the public good best be served.

12. Would going to prison do any good for Mr. Thompson or protect anybody?

From the list of questions above, select the four most important:

Most important

Second most important

Third most important

Fourth most important
HEINZ AND THE DRUG

In Europe a woman was near death from a special kind of cancer. There was one drug that the doctors thought might save her. It was a form of radium that a druggist in the same town had recently discovered. The drug was expensive to make, but the druggist was charging ten times what the drug cost to make. He paid $200 for the radium and charged $2,000 for a small dose of the drug. The sick woman's husband, Heinz, went to everyone he knew to borrow the money, but he could only get together about $1,000, which is half of what it cost. He told the druggist that his wife was dying, and asked him to sell it cheaper or let him pay later. But the druggist said, "No, I discovered the drug and I'm going to make money from it." So Heinz got desperate and began to think about breaking into the man's store to steal the drug for his wife.

Should Heinz steal the drug? (Check one)

_____ Should steal it

_____ Can't decide

_____ Should not steal it

(Please complete next page)
HEINZ STORY

<table>
<thead>
<tr>
<th>GREAT importance</th>
<th>MUCH importance</th>
<th>SOME importance</th>
<th>LITTLE importance</th>
<th>NO importance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

On the left-hand side of the page check one of the spaces by each question to indicate its importance.

1. Whether a community’s laws are going to be upheld.
2. Isn’t it only natural for a loving husband to care so much for his wife that he’d steal?
3. Is Heinz willing to risk getting shot as a burglar or going to jail for the chance that stealing the drug might help?
4. Whether Heinz is a professional wrestler, or has considerable influence with professional wrestlers.
5. Whether Heinz is stealing for himself or doing this solely to help someone else.
6. Whether the druggist’s rights to his invention have to be respected.
7. Whether the essence of living is more encompassing than the termination of dying, socially and individually.
8. What values are going to be the basis for governing how people act towards each other.
9. Whether the druggist is going to be allowed to hide behind a worthless law which only protects the rich anyhow.
10. Whether the law in this case is getting in the way of the most basic claim of any member of society.
11. Whether the druggist deserves to be robbed for being so greedy and cruel.
12. Would stealing in such a case bring about more total good for the whole society or not.

From the list of questions above, select the four most important:

Most important
Second most important
Third most important
Fourth most important